

MICROECONOMICS – QUESTIONS BY TOPIC

		CE	AL	
1. <u>BASIC CONCEPTS</u>	1.1 SCARCITY, ECONOMIC GOODS & FREE GOODSp.3	✓		
	1.2 OPPORTUNITY COST.....p.13			
	1.3 ECONOMIC SYSTEMS.....p.28			
	2. <u>PRODUCTION</u>	1.4 POSITIVE & NORMATIVE STATEMENTS..... p.35		✓
		1.5 COMPETITION AND DISCRIMINATION p.38		
		1.6 PROPERTY RIGHTS p.42		
		1.7 INTEREST p.47		
2.1 TYPES OF PRODUCTION..... p.50		✓		
2.2 CONSUMER GOODS AND PRODUCER GOODS p.58				
2.3 FACTORS OF PRODUCTION..... p.60				
3. <u>INPUT-OUTPUT RELATIONSHIP</u>	2.4 LABOUR SUPPLY AND PRODUCTIVITY.....p.69			
	2.5 DIVISION OF LABOURp.80			
	2.6 LABOUR MOBILITY..... p.86			
	2.7 WAGE PAYMENT METHODS..... p.91			
	2.8 PRIVATE GOODS & PUBLIC GOODS p.100		✓	
4. <u>OWNERSHIP & EXPANSION OF FIRMS</u>	3.1 THE LAW OF DIMINISHING RETURNS.....p.105	✓		
	3.2 VARIABLE AND FIXED COSTS.....p.116			
	3.3 ECONOMIES & DISECONOMIES OF SCALE.....p.118			
	3.4 SHORT RUN OR LONG RUN?p.126			
	3.5 PROFIT MAXIMISATION..... p.131		✓	
5. <u>MARKET STRUCTURE</u>	4.1 PUBLIC ENTREPRISES.....p.135	✓		
	4.2 SOLE PROPRIETORSHIPS & PARTNERSHIPS.....p.138			
	4.3 LIMITED COMPANIESp.142			
	4.4 COMPARING FORMS OF OWNERSHIP..... p.155			
	4.5 EXPANSION OF FIRMS..... p.160			
6. <u>DEMAND & SUPPLY (I)</u>	5.1 PERFECT COMPETITION.....p.170	✓		
	5.2 IMPERFECT COMPETITION.....p.175			
	6.1 THE LAW OF DEMAND.....p.187	✓	✓	
7. <u>DEMAND & SUPPLY (II)</u>	6.2 RELATIVE PRICE & THE LAW OF DEMAND..... p.190		✓	
	6.3 DETERMINATION OF MARKET PRICE.....p.198	✓		
	7.1 ELASTICITIES OF DEMAND & SUPPLY..... p.252	✓		
8. <u>MARKET INTERVENTION</u>	7.2 EFFICIENCY & SOCIAL SURPLUS.....p.272		✓	
	8.1 PRICE CONTROL.....p.285	✓		
	8.2 QUOTA..... p.301			
8.3 UNIT TAX & SUBSIDY.....p.308				
9. <u>ROLES OF GOVERNMENT</u>	9.1 EXTERNALITIES..... p.330		✓	
	9.2 EQUITY..... p.343			

HKCEE 1990 – 2010*

HKALE 1985 – 2012

HKDSE 2012 – 2020 [2009 Sample Paper (SP); 2012 Practice Paper (PP)]

*The final HKCEE in 2011 was held only for a small number of private candidates. Unless very special, the questions in year 2011 will not be listed.

Glossary:

HKCEE Paper I Multiple Choice Questions

HKCEE Paper II Short & Structured Questions

HKALE Paper I Microeconomics

HKALE Paper II Macroeconomics

SECTION 1: BASIC CONCEPTS

1.1 SCARCITY, ECONOMIC GOODS & FREE GOODS

Multiple Choice Questions

1991/CE/11/01

Owing to the problem of scarcity in a society, we have to

- (1) impose price controls
 - (2) make choices
 - (3) adopt a planned economic system
 - (4) compete against one another
- A. (1) and (3) only
B. (1) and (4) only
C. (2) and (3) only
D. (2) and (4) only

1994/CE/11/01

'Even though Japan is one of the richest economies in the world, it still has to face the problem of scarcity.' The statement is

- A. false, because scarcity only exists in developing countries.
B. false, because Japan has a high gross product (GNP).
C. true, because what the Japanese have cannot satisfy all their wants.
D. true, because Japan's income is unevenly distributed.

1995/CE/11/01

It was reported that many people queued for two days in order to get the monthly parking ticket for a certain car park. This phenomenon implies

- (1) scarcity in parking spaces.
 - (2) the existence of competition.
 - (3) shortage of parking spaces.
- A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

1995/CE/11/02

Scarcity exists

- A. because there is more than one person in the world.
B. if at least one person's wants are not fully satisfied.
C. because resources are not evenly distributed.
D. if the market price is kept below the equilibrium level.

1997/CE/11/01

Which of the following statements about scarcity is true?

- A. Once a choice is made, the problem of scarcity is solved.
B. A good is scarce if not everyone has it.
C. Scarcity means unlimited human wants.
D. Both rich people and poor people face the problem of scarcity.

1998/CE/11/54

Which of the following statements about choice is **INCORRECT**?

- A. People have to choose in order to avoid competition.
B. People have to choose if there is scarcity.
C. People choose the option with the least cost.
D. People choose the most preferred option.

1999/CE/11/01

The existence of scarcity implies that

- A. the economy is a planned economy
B. there is competition for the good
C. effective price control is imposed on the good
D. wealth is not evenly distributed

2004/CE/11/01

The existence of scarcity implies that

- A. resources will be allocated by the price mechanism.
B. all markets are perfectly competitive.
C. the quantity supplied of all goods is fixed.
D. people need to pay for what they want.

2005/CE/11/01

The existence of scarcity implies that

- A. there is no such thing as free goods.
B. human wants are unlimited.
C. each and every economic good has a positive money price.
D. there is a cost in obtaining some goods.

2009/CE/11/01

Which one of the following statements about scarcity is correct?

- A. A good is scarce when only a small quantity of it is available.
B. A good is scarce when people want to have more of it.
C. There is no scarcity in a planned economy.
D. The problem of scarcity can be solved by adjusting prices.

1990/CE/11/02

A free good is a good which

- A. nobody wants.
B. is provided by the government free of charge.
C. is not scarce.
D. is plentiful in supply.

1990/CE/11/25

Which of the following statements is correct?

- A. Scarcity exists only in poor countries.
- B. If there were plenty of rainwater in Hong Kong, the cost of the domestic water supply would be zero.
- C. The 9 years free education provided by the Hong Kong government is a scarce good.
- D. Economics is concerned with how free goods are distributed.

1991/CE/11/03

Which of the following are economic goods?

- (1) social welfare provided by the government
 - (2) gifts from parents
 - (3) flowers in a garden
- A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

1991/CE/11/55

Scarcity of commodity X will NOT occur when

- A. there is a great supply of it
- B. nobody wants it
- C. it is free of charge
- D. only one person wants it

1992/CE/11/01

A scarce resource has the following characteristic:

- A. Its supply is fixed.
- B. It is difficult to find.
- C. It is in great demand.
- D. It has a price on the market.

1992/CE/11/02

To society, used aluminium Coca-Cola cans are _____ because _____.

- A. free goods nobody wants them
- B. free goods there are plenty of them
- C. economic goods they have alternative uses
- D. economic goods they were produced from scarce resources

1993/CE/11/16

In Nathan Road one day, samples of a new brand of shampoo were given away free to passers-by. Within an hour, and available samples were gone. These free samples are _____ because _____.

- A. free goods they are free of charge
- B. free goods they are used for advertising purposes
- C. economic goods the passers-by want them
- D. economic goods they are limited in supply relative to people's wants

1994/CE/11/02

In a lottery, Peter wins a transferable air ticket to Japan. Which of the following statements is correct?

- A. The ticket is a free good.
- B. Peter will not lose anything if he loses the ticket.
- C. The opportunity cost to Peter of using the ticket is zero.
- D. The opportunity cost to Peter of using the ticket increases if the price of ticket increases.

1995/CE/11/03

To a society, used paper for recycling is _____ because _____.

- A. a free good it is free of charge
- B. a free good it has no alternative uses
- C. an economic good more than one people want it
- D. an economic good people prefer to have more of it

1996/CE/11/55

Which of the following is NOT true about a free good?

- A. Nobody wants to have more of it.
- B. Its price is zero.
- C. It is unlimited in supply.
- D. It has use value.

1997/CE/11/12

Read the following advertisement

<p style="text-align: center;">HOTELABC FREE BUFFET DINNER Buy two buffet dinners and get one free! (From Monday to Thursday) \$200 for one person \$400 for two persons plus a friend</p>

The free buffet dinner is

- A. a free good because the quantity supplied is greater than the quantity demanded.
- B. a free good because it is free of charge.
- C. an economic good because more of the food is preferred to less of it.
- D. an economic good because non-price competition is involved.

1998/CE/11/01

If a good is scarce,

- A. only a small quantity is available.
- B. its price will increase.
- C. its quantity supplied is smaller than its quantity demanded at all prices.
- D. more of it is preferred.

1998/CE/11/02

Which of the following statements about goods are correct?

- (1) Free goods are free of charge
- (2) Natural resources are free goods.
- (3) Inputs are economic goods.
- (4) Outputs are economic goods.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

2000/CE/11/01

Good X is a 'free good' when

- A. there is no opportunity cost involved in using it.
- B. its quantity supplied is greater than what consumers are willing to purchase in the market.
- C. nobody wants more of it.
- D. its supply is so abundant that consumers place no value on it.

2001/CE/11/47

Which of the following is NOT classified as 'economic good'?

- A. a company's stock whose price has been falling for two months
- B. the votes for the candidates in Legislative Council election
- C. stray and homeless dogs in the streets
- D. used paper collected for recycling

2002/CE/11/01

In which of the following situations would ice in the North Pole be regarded as a free good?

- A. The ice is a gift of nature.
- B. More of the ice is not preferred.
- C. The price of the ice is zero.
- D. The quantity demanded of ice is smaller than the quantity supplied at a price greater than zero.

2002/CE/11/02

Nowadays, many people download their favourite songs and pictures through the Internet without paying any fee. To society, these songs and pictures are

- A. free goods because there are plenty of songs and pictures on the Internet.
- B. free goods because their original owners have not received any payments.
- C. economic goods because the cost involved in using the Internet is negligible.
- D. economic goods because there are costs involved in producing these songs and pictures.

2003/CE/11/01

In some poor countries in Africa, people do not have enough food and have to eat rats. They have to dig into the ground in order to find these rats. The rats in the above case are

- A. not an economic good because rats are harmful to people.
- B. an economic good because more of them is preferred.
- C. a free good because there is no cost of producing rats.
- D. an economic good because rats can satisfy human wants.

2004/CE/11/03

Good X is an economic good if

- A. more than one person needs it.
- B. more of it is preferred.
- C. it can satisfy human wants.
- D. it is limited in supply.

2005/CE/11/02

Upon successful application for a credit card from a bank, Miss Chan obtains a digital versatile disc (DVD) player as a free gift. These free gifts are

- A. free goods, because successful applicants like Miss Chan have no cost to pay.
- B. free goods, because the quantity supplied is larger than the quantity demanded.
- C. economic goods, because more of these goods are preferred to less.
- D. economic goods, because the quantity available is limited.

2006/CE/11/03

Every July of the Lunar calendar, many charity organizations distribute packs of rice to people free of charge. Those who spend a lot of time queuing up for this rice are mostly elderly people.

These packs of charity rice are economic goods because

- A. the quantity of this rice is limited.
- B. rice can satisfy people's wants.
- C. the wants for this rice are unlimited.
- D. people want more of this rice.

2007/CE/11/01

A good is a free good if

- A. it is rare or it can be found easily.
- B. there is enough of it available free of charge for everyone who wants it.
- C. there is enough of it available for everybody who pays the market price for it.
- D. no one owns it.

2008/CE/11/01

From the viewpoint of society,

- A. people will not compete for free goods.
- B. money price is the only criterion of competition for scarce goods.
- C. resources with alternative uses are scarce.
- D. there is no scarcity in a barter economy.

2009/CE/11/01

Free goods

- A. are unlimited in supply.
- B. are goods for which people will not pay a price to get more.
- C. can be found only in a planned economy but not in a market economy.
- D. exist only in theory but not in the real world.

2014/DSE/1/03

An economic good

- A. is a good with its demand greater than its supply.
- B. brings us more satisfaction than a free good.
- C. is a good whose quantity available cannot satisfy human wants at zero price.
- D. cannot be found free of charge in any economy.

2016/DSE/1/01

Which of the following statements about economic goods is correct?

- A. Economic goods may not be scarce.
- B. People compete for economic goods.
- C. People prefer economic goods to free goods.
- D. People compete for both economic goods and free goods.

Short & Structured Questions

1991/CE/1/2(c)(iii)

Define 'free good'. Give an example of oxygen when it is regarded as a free good and another example when it is not. (6 marks)

1994/CE/1/1

The Kowloon-Canton Railway Corporation provides a free shuttle-bus service (接駁巴士服務) at some train stations. Explain whether this service is a 'free good' to society or not. (4 marks)

2000/CE/1/1

Statement 1: Ice is a free good.
Statement 2: Ice is an economic good.

Explain one situation in which statement 1 is correct and another situation in which statement 2 is correct. (4 marks)

2002/CE/1/1

Some job vacancies publications are distributed to people free of charge in MTR stations. Explain whether these publications are free goods in society. (3 marks)

2004/CE/1/1

Hong Kong citizens could use public swimming pools free of charge on Sundays in July of 2003. Explain whether the above service was a free good to society. (3 marks)

2012/DSE/II/1

A good which is free-of-charge is a free good. Do you agree? Explain. (3 marks)

2013/DSE/II/9(b)

The following is an extract from a local newspaper article.

The MTR Corporation raised the railway fares by 5.4% in 2012. This increase was based on the Fare Adjustment Mechanism set by the government. To respond to the discontent of the public over the fare increase, the Corporation introduced a concessionary measure "Ride 10 Get 1 Free".

Under the "Ride 10 Get 1 Free" scheme, with 10 fare-paying journeys on the MTR from Monday to Friday in the same week, passengers could get a single journey ticket for free. Is the free journey a free good? Explain. (2 marks)

2015/DSE/I/(a)(i)

More and more famous universities offer "massive open online courses" (MOOC) to students from various backgrounds for systematic learning.

Most of the teaching materials in MOOC can be accessed online by anyone free of charge. Explain whether these materials are free goods. (2 marks)

2020/DSE/II/1

A free good must be free of charge. Do you agree? Explain your answer. (3 marks)

MARKING SCHEME

1991/CE/II/01 D	2005/CE/II/01 D	1993/CE/II/16 D	2001/CE/II/47 C	2008/CE/II/01 A (63%)
1994/CE/II/01 C	2009/CE/II/01 B	1994/CE/II/02 D	2002/CE/II/01 B (60%)	2009/CE/II/01 B (81%)
1995/CE/II/01 D	1990/CE/II/02 C	1995/CE/II/03 D	2002/CE/II/02 D (84%)	2014/DSE/II/03 C (59%)
1995/CE/II/02 B (deleted)	1990/CE/II/25 C	1996/CE/II/55 C	2003/CE/II/01 B (52%)	2016/DSE/II/01 B (74%)
1997/CE/II/01 D	1991/CE/II/03 D	1997/CE/II/12 C	2004/CE/II/03 B (70%)	
1998/CE/II/54 A	1991/CE/II/55 B	1998/CE/II/01 D	2005/CE/II/02 C (68%)	
1999/CE/II/01 B	1992/CE/II/01 D	1998/CE/II/02 B	2006/CE/II/03 D (72%)	
2004/CE/II/01 D	1992/CE/II/02 X	2000/CE/II/01 C	2007/CE/II/01 B (77%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/II/2(c)(iii)

The supply is so abundant that it satisfies all human wants for it.

OR

No one is willing to incur a cost getting it.

(2)

The case of a free good: e.g. oxygen for normal breathing

(2)

The case of an economic good: e.g. concentrated oxygen

(2)

1994/CE/II/1

Not a free good, because

(1)

resources used in providing the bus service have alternative uses; there are costs of using the resources in providing the bus service.

OR

more of the bus service is preferred to less.

(3)

2000/CE/II/1

E.g. The ice-field in the Polar regions is a free good, because

(1)

the quantity available is sufficient to satisfy all our wants for it / no sacrifice of resources of the economy is involved

(1)

E.g. Ice cubes in a glass of soft drink are economic goods, because

(1)

the quantity available is insufficient to satisfy all our wants for it / one has to pay a cost to obtain it

(1)

2002/CE/II/1

Not free goods because

(1)

the resources used to produce them have alternative uses / there is a cost to society of producing them / the quantity available is insufficient to satisfy all our wants for them

(2)

2004/CE/II/1

No, because

its quantity available is insufficient to satisfy our wants / more of it is preferred.

(1)

OR

resources used to provide the service had alternative uses / there is opportunity cost of providing the service.

(2)

2012/DSE/II/1

No, because

the good may be produced from scarce resource which have alternative uses.

(1)

OR

more of the good may still be preferred.

(2)

2013/DSE/II/9(b)

No, because

the provision of MTR service involves the use of scarce resources having alternative uses.

(1)

(1)

2015/DSE/II(a)(i)

No, because

it has positive marginal cost of production;

(1)

OR

it is produced from scarce resources, which have alternative uses.

(1)

2020/DSE/II/1

Yes. As the quantity available of free good is able to satisfy all human wants. No one is willing to pay a price to obtain it. (3 marks)

1.2 OPPORTUNITY COST

Multiple Choice Questions

1990/CE/II/01

Tommy was asked to choose one birthday present from the following three things: a model spaceship, a walkman and a jacket. He liked the model spaceship the most and the walkman second. What would be his opportunity cost if he chose the model spaceship?

- A. a walkman
- B. a walkman and a jacket
- C. the price of a model spaceship
- D. no opportunity cost since it was a present

1991/CE/II/02

Susan is choosing between two jobs: being a teacher and being a singer. If she chooses to be a singer, her opportunity cost will include

- A. the income from being a teacher.
- B. the income from being a singer.
- C. the tuition fee she paid for her training as a teacher.
- D. the tuition fee she paid for her training as a singer.

1992/CE/II/03

Which of the following are opportunity costs of attending school?

- (1) school fees
 - (2) income forgone
 - (3) poor examination results
 - (4) expenditure on dinners
- A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (4) only
 - D. (3) and (4) only

1993/CE/II/02

Mr. Wong could spend two hours at a concert or tutoring a student at \$60 per hour. He could use the time on painting instead and earn a total of \$150. If the price of the concert ticket is \$300, what is the opportunity cost of his choice of going to the concert?

- A. \$150
- B. \$300
- C. \$420
- D. \$450

1994/CE/II/03

Mr. Lee owns a photographic studio. Previously he received \$30 000 per month by letting it out. He now does not let the studio, but, instead he uses the premises for his own business. He also employs a model at \$10 000 per month.

What is Mr. Lee's opportunity cost of using the studio by himself?

- A. \$10 000 per month
- B. \$20 000 per month
- C. \$30 000 per month
- D. \$40 000 per month

1994/CE/II/14

Mrs Wong retired last year. Since then she has been helping to do the housework in her daughter's house and receiving no money in payment for it. The daughter works as an accountant in her own accounting firm. Which of the following statements is correct?

- A. Although Mrs Wong receives no money in payment, her service is counted in the national income.
- B. As Mrs Wong receives no money in payment, she is not classified as a producer.
- C. To the daughter, the opportunity cost of working as an accountant is lower than that of staying at home just doing her housework.
- D. To avoid double counting, the daughter's profits from her firm are not counted in the national income.

1995/CE/II/05

Fanny can choose among three different jobs. Her choice of preference is as follows:

First priority:	being a teacher in School X
Second priority:	being a secretary in Company Y
Third priority:	being a sales representative in Firm Z

Assuming her choice of preference remains unchanged, which of the following will increase Fanny's opportunity cost of being a teacher in School X?

- A. The students in School X are becoming more naughty.
- B. Company Y requires its secretaries to work longer hours.
- C. Company Y decides to increase the salaries of its secretaries
- D. Firm Z decides to increase the bonuses for its sales representatives.

1996/CE/II/01

John lives in his own apartment which is worth \$1 million. He can sell the apartment and put the money in a bank at an interest rate of 5% per year. He can also rent out the apartment at \$5 000 a month. What is the opportunity cost to John if he decides to live in the apartment?

- A. \$1 million
- B. \$50 000 a year
- C. \$5 000 a month
- D. There is no opportunity cost because he lives in his own apartment

Answer Questions 2 and 3 by referring to the following information:

Max Department Store has launched a promotion campaign. For every purchase of \$1000, customers are given a coupon to exchange for the following gifts:

Number of Coupons	Gifts
10	1 camera
20	1 TV set
30	1 air ticket

1997/CE/II/02

John has accumulated 30 coupons. What is the opportunity cost to John if he uses them to exchange for one air ticket?

- A. a TV set
- B. \$30 000
- C. a camera and a TV set
- D. a camera, a TV set and \$30 000

1997/CE/II/03

Later, John finds that he has to queue up to exchange his coupons for gifts. The queue shows that

- A. these gifts are truly free of charge.
- B. there is a shortage of gifts for all the customers.
- C. the promotion campaign is successful and there is an increase in the demand for the company's products.
- D. customers has an extra cost to obtain the gift.

1997/CE/II/49

Before the sale of a big residential estate, many elderly people queued up outside the site office for potential buyers. This implies that

- A. the value of the flats to these elderly people was higher than to young people.
- B. the price of the flats was above the equilibrium level because there was a shortage.
- C. the opportunity cost of the queuing time of these elderly people was lower than that of the potential buyers.
- D. the opportunity cost of the queuing time of these elderly people was zero because they did not have a job.

1998/CE/II/50

May is considering accepting one of the following job offers: (1) a clerk in an import-export firm, and (2) a salesgirl in a department store. Which of the following changes will NOT affect her opportunity cost of choosing to work as a clerk?

- A. The import-export firm increases its staff's welfare.
- B. The department store offers a higher salary.
- C. There is a third offer paying a higher salary than the original two offers.
- D. The department store announces that their business will terminate one year later.

1999/CE/II/50

Peter invites Jason to play tennis in the afternoon. Jason will NOT have opportunity cost if

- A. Peter pays the fee for him.
- B. He has nothing more worthwhile to do in the afternoon.
- C. He likes playing tennis with Peter.
- D. None of the above is a correct answer.

2000/CE/II/02

Chan and Wong take a journey to City X separately. They can go there either by Plane or by train. The plane takes 2 hours while the train takes 10 hours. The air ticket costs \$1 000 while the train fare is \$200. During the journey to City X, the foregone earning of Chan is \$200 per hour and that of Wong is \$80 per hour.

For the journey to City X, Chan would take the _____ and Wong would take the _____.

- A. train train
- B. train plane
- C. plane train
- D. plane plane

2000/CE/II/53

Which of the following is NOT an opportunity cost of constructing Disneyland in Hong Kong?

- A. The alternative use of the site
- B. The amount of capital invested
- C. The pollution created by the construction work
- D. The entrance fee of Disneyland.

2001/CE/II/01

Which of the following will change the cost to an individual of attending a concert?

- A. He is an hour late for the concert due to traffic congestion.
- B. His view is blocked by the audience in front of him.
- C. The singer performs badly.
- D. The concert overruns by an hour.

2002/CE/II/04

Which of the following would affect the cost of constructing the West Rail?

- A. an increase in the damage to the natural environment along the railway caused by the construction
- B. an increase in the wages of the maintenance staff for the operation of the train service
- C. a decrease in the profit from providing the train service
- D. a decrease in the revenue of the bus company operating a bus service along the railway

2003/CE/II/02

Peter is an F.5 graduate who could not get a study place in F.6. Which of the following may lower the cost of repeating F.5 for Peter?

- A. The tuition fee for study in F.5 increases.
- B. The tuition fee for study in F.6 decreases.
- C. The wage rate for F.5 graduates decreases.
- D. Peter's new F.5 English teacher teaches badly.

2003/CE/II/03

Medical doctors seldom change their occupation. Which of the following can explain this phenomenon?

- A. They have spent much time and effort in getting their professional licence.
- B. They have incurred high costs in accumulating the skills and knowledge required for the profession.
- C. For medical doctors, changing occupation has a high cost.
- D. Being medical doctors has a high cost.

2004/CE/II/02

Which of the following statements about the concept of opportunity cost is correct?

- A. Opportunity cost still exists even when there are no choices.
- B. Opportunity cost does not exist in a planned economy.
- C. When the value of an option decreases, the opportunity cost of choosing that option does not change.
- D. When the value of the highest-valued option increases, the opportunity cost of choosing that option will decrease.

2005/CE/II/03

David is choosing between two ways of spending his summer vacation: to take a summer job or to join an exchange programme to the United Kingdom. Which of the following will increase his opportunity cost of taking the summer job?

- A. The fee for the exchange programme increases.
- B. The summer job pays a higher salary.
- C. A valuable course is added to the exchange programme.
- D. Less training for the summer job is provided.

2006/CE/II/02

Every July of the Lunar calendar, many charity organizations distribute packs of rice to people free of charge. Those who spend a lot of time queuing up for this rice are mostly elderly people.

In the above case, the elderly rather than the young people would spend time queuing up for these packs of charity rice because

- A. it is a tradition to queue up for this rice.
- B. the elderly prefer rice to other kinds of food.
- C. the elderly are poorer than the young people.
- D. the elderly value their best choice of other activities less than that of the young people.

2007/CE/II/02

A resident of Mainland China is choosing between a tour to Hong Kong and a tour to Macau organized by a travel agent. His opportunity cost of choosing to visit Hong Kong will increase if

- A. the food provided during his trip in Hong Kong is poorer than expected.
- B. he is abandoned on the streets in Hong Kong by the tour guide.
- C. newly developed tourist attractions in Macau make it more enjoyable to visit Macau.
- D. the rental of hotel accommodation in Macau increases.

2008/CE/II/02

Which of the following could raise the cost of drug abuse?

- A. The price of drugs increases.
- B. The government imposes heavier punishments on drug abuse.
- C. Drug abuse causes greater damage to one's health.
- D. All of the above are correct.

2009/CE/II/02

Which of the following situations will increase the opportunity cost to Form 7 graduates of receiving a university education?

- (1) The university undergraduate programme increases from 3 years to 4 years.
- (2) The wage rate of Form 7 graduates increases.
- (3) The academic performance of university graduates generally declines.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2010/CE/II/02

Julie is choosing between Hong Kong and the US to complete her university education. Her opportunity cost of studying in the US will increase when

- A. the number of scholarships offered by the universities in the US increases.
- B. the tuition fee of the universities in Hong Kong increases.
- C. the university graduates of Hong Kong become less competitive in the job market than those of the US.
- D. the standard of professional training programs offered by the universities in Hong Kong improves.

PP/DSE/1/02

Mr. Chan spent \$5 000 on buying a new mobile phone which can be sold for \$7 000 in the second-hand market. Mr. Chan's cost of keeping the mobile phone is _____.

- A. \$0
- B. \$2 000
- C. \$5 000
- D. \$7 000

2012/DSE/1/02

Mr Kwok plans to purchase a new racing car from a German automobile manufacturer and drive the car in Hong Kong. In which of the following situations will the cost of purchasing the racing car increase?

- A. The first registration fee increases.
- B. The price of gasoline increases.
- C. The Euro depreciates against the Hong Kong dollar.
- D. The racing car performs poorly.

2013/DSE/1/02

Jeremy is going to watch a tennis match in which Li Na (李娜), a Grand Slam (大滿貫) winner, will play. Which of the following will increase the cost to Jeremy of watching the tennis match?

- A. He is 30 minutes late for the match due to traffic congestion.
- B. His view is blocked by the spectators in front of him.
- C. Due to a rainstorm, the match is extended by an hour.
- D. Li Na is injured and does not show up for the match.

2014/DSE/1/01

A famous football team, Manchester United, visited Hong Kong for a friendly match. The day before the match, the team found the pitch in the Hong Kong Stadium had been damaged by prolonged rain and it considered cancelling the match. The opportunity cost for Manchester United to continue playing in such a poor pitch would _____ because _____

- A. increase there was a higher chance for the players to get injured
- B. increase the team was likely to have poor performance
- C. remain unchanged the expense on the visit to Hong Kong had already been paid
- D. remain unchanged the players spent the same amount of time in Hong Kong

2015/DSE/1/02

David can choose to take the MTR or a bus to Yuen Long. Suppose the required travel time and the fares of both options are the same in a normal situation. Which of the following will result in an increase in the opportunity cost of travelling to Yuen Long by MTR?

- A. The air-conditioner on the bus is out of order.
- B. The traffic jam makes the bus trip 15 minutes longer.
- C. A signalling problem causes the travel time of the MTR to increase by 15 minutes.
- D. David feels annoyed about the news broadcast in the MTR train.

2016/DSE/1/03

Mr Ng, a Hong Kong citizen, is going to travel to Tokyo for leisure. Which of the following will decrease his cost of having the trip?

- A. A typhoon is approaching Tokyo right before his trip.
- B. His boss is going to treat all the staff to a free buffet during his leave.
- C. The scenery in Tokyo is better than he expected.
- D. Japanese Yen depreciates against other currencies.

2017/DSE/1/04

Which of the following would be the loss(es) of delaying the completion of a new railway to an economy?

- (1) the travel time of passengers that would have been saved by the new railway during the period of delay
- (2) the damage to the corporate image of the railway constructor for the delay
- (3) the nuisance to the shops and residents nearby during the period of delay

- A. (1) only
- B. (2) only
- C. (3) only
- D. (1), (2) and (3)

2018/DSE/1/03

John, a Secondary 6 graduate, is considering studying a programme either in Hong Kong or the Mainland. Which of the following situations would lower his opportunity cost of studying the programme in Hong Kong?

- (1) His tuition fee of the first year will be waived if he studies the programme in Hong Kong.
- (2) The graduates of the Mainland programme have better job prospects.
- (3) The qualification of the Mainland programme may not be recognised in Hong Kong.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Mr Lo spent \$60000 on buying a second hand car three years ago. Suppose he can resell the car at \$2000. Alternatively, he needs to spend \$5000 on repairing the car before he can continue to use it. What is his cost of continuing to use the car?

- A. \$2000
- B. \$5000
- C. \$7000
- D. \$60000

2020/DSE/1/10

Alfred booked a room in a resort hotel. Later he found that Betty had booked a room in the same hotel at a lower price. Which of the following are possible reasons for such a price difference?

- (1) Alfred's booking was non-refundable while Betty's booking was with free cancellation.
- (2) Alfred booked the room in a weekend while Betty booked the room in a weekday.
- (3) Alfred booked the room with sea view while Betty booked the room with street view.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1990/CE/1/(a)(i)

Mrs Wong is a lawyer and is also good at doing housework, but she employs a Filipino maid to do her housework. In terms of opportunity cost, explain why Mrs. Wong employs a Filipino maid instead of being a full-time housewife. (5 marks)

1990/CE/1/4/(c)(i)

The U.S.A. imposes quotas on garments imported from Hong Kong. The Hong Kong government allocates the quotas free of charge to some firms. These quotas are transferable at market prices.

Suppose Mr Lee's company obtains quotas from the government. Explain whether the opportunity cost to this company of using these quotas for exports is zero. (4 marks)

1990/CE/1/5/(c)(i)

The government has announced a \$127 billion project for building a new airport at Chek Lap Kok and improving the harbour facilities.

An economist argues that the cost of this project to society is higher than \$127 billion. Give **TWO** reasons to support his argument. (4 marks)

1991/CE/1/2(a)

(i) Define 'opportunity cost' and 'occupational mobility'. (4 marks)

(ii) In terms of cost, explain why medical doctors in Hong Kong seldom change their occupation. (5 marks)

1993/CE/1/5(a)

Mr. Chan owns a flat in Mongkok. The following is his order of preference of ways to use his flat:

First choice: live in his flat
Second choice: rent it to a tenant
Third choice: leave it vacant

In terms of opportunity cost, explain whether the costs of the second and third choices are the same for Mr. Chan. (4 marks)

1995/CE/1/10/(a)(i)

Study the following piece of news reported in the USA:

A local singer has volunteered to perform two identical shows and the sales receipt of the concert tickets will be donated to the Rwanda refugees in Africa for their food and medical supply expenses

(I) Define opportunity cost. (2 marks)

(II) Explain with an example why the singer had an opportunity cost in performing the shows. (2 marks)

(III) List **TWO** possible benefits to the singer arising from the performance. (2 marks)

1996/CE/1/1

John has 2 options as to how to spend an afternoon: he can either go to a concert or go to a karaoke lounge with his friends. Explain whether John's opportunity cost of going to the karaoke lounge would change if

(a) the concert was very boring. (2 marks)

(b) the service of the karaoke lounge was very poor. (2 marks)

1997/CE/1/11(b)

Suppose Mr. A runs his restaurant in his own premises.

Explain with an example when Mr. A's opportunity cost of using the premises for the restaurant business would increase. (3 marks)

1998/CE/1/1

David can choose to study in one of three streams in Form 4. His order of preference is shown below:

First preference: Arts stream
Second preference: Business stream
Third preference: Science stream

(a) Define opportunity cost. (2 marks)

(b) Suppose the business stream is now not offered in David's school. Explain how David's opportunity cost of choosing the Arts stream would change. (3 marks)

1999/CE/1/1

David wants to spend \$8 to buy a pack of sandwiches or a bowl of noodles from an unlicensed hawkker. Explain the effect on David's opportunity cost of buying the sandwiches if a cockroach is found inside the noodle soup. (3 marks)

2000/CE/1/10(b)(ii)

Suppose Bank X of economy A takes over Bank Y of economy B by buying up its controlling share worth \$5 million.

(I) Define opportunity cost. (2 marks)

(II) Assume Bank X does not know that Bank Y has a huge amount of hidden debt. Explain whether this would affect the opportunity cost of the takeover to Bank X. (3 marks)

2001/CE/1/10(d)

Paul's order of preference of using his money is shown below:

First preference: purchase of gold coins
Second preference: savings in banks
Third preference: investment in stocks

Suppose an interest tax is imposed on bank deposits. Explain whether Paul's opportunity cost of purchasing gold coins would change. (4 marks)

2002/CE/1/10(e)

Suppose some large banks reduce their deposit interest rates while some small banks increase their deposit interest rates. Use the concept of opportunity cost to explain how this would affect the flow of deposits between the above two types of banks. (4 marks)

2004/CE/1/2

Mr Chan and Mr Lee are secondary school teachers. They earn the same salary of \$30 000 a month

(a) Define opportunity cost. (2 marks)

(b) Explain whether Mr Chan's and Mr Lee's opportunity cost of being a teacher would *definitely* be the same. (2 marks)

(c) Explain whether the opportunity cost of quitting their jobs as teachers would *definitely* be the same. (3 marks)

2005/CE/I/9

- (b) (ii) Explain how an increase in traffic congestion in the Cross Harbour Tunnel would affect the opportunity cost to its users of crossing the harbour. (2 marks)
- (c) Explain whether the opportunity cost of crossing the harbour would *definitely* be the same to every user of the Cross Harbour Tunnel when there is traffic congestion. (3 marks)

2006/CE/II/2

Steven is choosing between studying law or medicine at a university to pave way for his future career. Explain whether his cost of choosing to study law at a university would be affected if

- (a) the expected salary of jobs in the legal services sector falls. (2 marks)
- (b) the expected salary of jobs in the medical services sector falls. (2 marks)

2007/CE/I/10(c)

A large number of departing passengers were delayed at the airport in Hong Kong during a typhoon. Suppose they were delayed 24 hours on average.

- (i) Explain whether their opportunity cost of that visit to Hong Kong would have changed as a result of the delay. (2 marks)
- (ii) During that 24 hours, passengers were either waiting in the airport or had free hotel accommodation arranged for them. Explain whether your answer in (c)(i) depends on which situation they were in. (2 marks)

2008/CE/II/9(b)(i)

The stock market of an economy is overheated. Many people withdraw money from their bank deposits to buy shares.

Two measures are suggested to cool down the overheated stock market. Explain, respectively, whether the opportunity cost of choosing to invest in shares instead of depositing money with banks would change when

- (1) the deposit interest rate of banks is raised.
- (2) the government imposes a tax on the capital gains from trading of shares. (6 marks)

2009/CE/II/1

Last summer, Mary and John each bought a \$20 Olympic memorial banknote. Each of them had to pay \$138 and queue up for a whole day for the purchase.

- (a) Define opportunity cost. (2 marks)
- (b) "Mary's opportunity cost of purchasing the Olympic memorial banknote would be the same as John's." Explain whether this statement is *definitely* correct. (2 marks)

2010/CE/II/1(c)

As the interest earnings from depositing money with banks are close to zero, some investors choose between investment in shares and investment in property.

- (i) Explain with an example when the opportunity cost of choosing to invest in shares would increase. (3 marks)
- (ii) Explain whether the opportunity cost of choosing to invest in shares would change when the amount of dividends decreases. (2 marks)

2013/DSE/II/9(c)

The following is an extract from a local newspaper article.

The MTR Corporation raised the railway fares by 5.4% in 2012. This increase was based on the Fare Adjustment Mechanism set by the government. To respond to the discontent of the public over the fare increase, the Corporation introduced a concessionary measure "Ride 10 Get 1 Free".

It was observed that there were queues of passengers redeeming the free tickets at customer service counters in MTR station. Suppose the waiting time is the same for these passengers, is the cost of redeeming the free tickets *necessarily* the same to these passengers? Explain. (3 marks)

2014/DSE/II/1

Serine is a university graduate who is seeking a job. She has several options and her order of preference is shown below:

- First preference: to work for the government as an administrative officer
Second preference: to work in an accounting firm as a trainee
Third preference: to continue to seek a job without accepting any offers

Analyse whether Serine's opportunity cost of choosing to work as an administrative officer will *necessarily* remain unchanged if

- (a) the government reduces the starting salary of administrative officers. (2 marks)
- (b) the government provides unemployment benefits for all graduates seeking jobs. (3 marks)

2015/DSE/II/1(b)

More and more famous universities offer "massive open online courses" (MOOC) to students from various backgrounds for systematic learning.

Some people prefer to take free MOOC while others prefer to take paid courses conducted on the university campus. If the courses are with the same contents and number of teaching hours, will the cost for a person to take a free MOOC be *necessarily* lower than the cost for another person to take a paid on-campus course? Explain. (3 marks)

2016/DSE/II/1

Apple Inc. launches a new model of smartphone. In order to buy the new model, some people spend hours in trying to login the website of Apple Inc. If the resale value of the new model falls, the opportunity cost of buying the new model through the website of Apple Inc. will decrease. Do you agree? Explain your answer. (3 marks)

2017/DSE/II/1

Serine is working in the Hong Kong branch of a multinational firm. She is considering the next step in her career. She has several options and her order of preference is as follows:

- | | |
|----------------|---|
| First option: | to work in a firm located in South Korea |
| Second option: | to switch to a local firm without overtime work |
| Third option: | to stay in the current firm |

Explain whether the opportunity cost of *switching to the local firm without overtime work* will *necessarily* remain unchanged

- (a) if the military threat from North Korea to South Korea becomes more intense. (2 marks)
- (b) if she wants to enjoy more leisure time. (3 marks)

2018/DSE/II/1

Although air ticket fares and hotel rates are usually higher during holiday periods, many people still travel abroad. Explain, in terms of opportunity cost, why it is *not necessarily* more expensive for travellers to travel abroad during holiday periods than non-holiday periods. (3 marks)

A country considers acquiring more land by reclamation for building residential flats. Explain whether the opportunity cost of land reclamation will change if

- (a) the maximum height of the buildings on the reclaimed land is limited to two storeys due to technical reasons. (2 marks)
- (b) there is a shortage of the materials for land reclamation. (3 marks)

Microeconomics by Topic
I. Basic Concepts

MARKING SCHEME

1990/CE/1/01 A	1996/CE/1/01 C	2000/CE/1/53 A	2006/CE/1/02 D (82%)	2013/DSE/1/02 C (74%)
1991/CE/1/02 A	1997/CE/1/02 C	2001/CE/1/01 D	2007/CE/1/02 C (78%)	2014/DSE/1/01 A (32%)
1992/CE/1/03 A	1997/CE/1/03 D	2002/CE/1/04 A (61%)	2008/CE/1/02 D (58%)	2015/DSE/1/02 C (63%)
1993/CE/1/02 D	1997/CE/1/49 C	2003/CE/1/02 C (56%)	2009/CE/1/02 A (63%)	2016/DSE/1/03 D (76%)
1994/CE/1/03 C	1998/CE/1/50 A	2003/CE/1/03 C (52%)	2010/CE/1/02 D (78%)	2017/DSE/1/04 D (44%)
1994/CE/1/14 C	1999/CE/1/50 D	2004/CE/1/02 C (67%)	PP/DSE/1/02 D	2018/DSE/1/03 B (80%)
1995/CE/1/05 C	2000/CE/1/02 C	2005/CE/1/03 C (68%)	2012/DSE/1/02 A (62%)	2019/DSE/1/03 C

2020/DSE/1/10
D

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/1/(a)(i)

The value of employing a Filipino maid (best alternative use of Mrs Wong's time, e.g. income earned by a lawyer) is larger than the cost of so doing (e.g. payment to the maid). (5)

1990/CE/1/4/(c)(i)

No, because alternatively Mr Lee can sell these quotas in the market and make money, i.e. the opportunity cost is the sum of money thus forsaken. (3)

1990/CE/1/5/(c)(i)

The following items have not been included in the \$127 billion:

- pollution arising from construction
- loss incurred by private individuals adversely affected by construction
- permanent loss of a countryside view in Lantau
- strain on resources bidding up factor cost to other sectors
- the sacrifice of more valuable alternative projects

(Mark the **FIRST TWO** points only.)

(2 @ max: 4)

1991/CE/1/2/(a)

(i) Opportunity cost is the highest-valued option or the best alternative that has to be forgone. (2)
Occupational mobility is the ease with which a factor moves from one occupation / trade / industry to another. (2)

(ii) In changing occupation, the opportunity cost of a doctor (in terms of income forgone) can be very high. (2)
The value of taking up a new occupation (i.e. a doctor's earnings in another job) is usually lower than the cost of so doing (i.e. income, satisfaction and social status etc. from being a doctor). (3)

Microeconomics by Topic
1. Basic Concepts

- 1993/CE/1/5(a)
The cost of the second choice is to give up the first choice. (1)
The cost of the third choice is to give up the first choice. (1)
∴ Both had the same highest-valued option forgone. (2)
(Remark: mere mention of the definition of opportunity cost - max: 1 mark)
- 1995/CE/1/10(a)(i)
(I) Opportunity cost is the highest-valued option forgone. (2)
(II) Her services, time, or other resources used in the performance had alternative uses e.g. income forgone from other jobs. (1)
(1) (1)
(III) - prestige / increased no. of fans / more popular
- experience gained (1@, max: 2)
- enjoyment in performing the shows
(Mark the FIRST TWO points only.)
- 1996/CE/1/1
(a) The cost decreased / changed, because (1)
the value of the concert (which is the highest-valued option forgone) is lowered / changed. (1)
(b) No change, because (1)
enjoyment in the karaoke lounge is not an option forgone. (1)
OR
the value of the concert (which is the highest-valued option forgone) has not changed. (1)
- 1997/CE/1/11(b)
The value of the highest-valued option forgone increases. (1)
e.g. the market rental of the premises increases. (2)
- 1998/CE/1/1
(a) It is the highest-valued option forgone. (2)
(b) Since the science stream is less preferred than the business stream, a change from the option of the business stream to the option of the science stream would lower the opportunity cost. (3)
- 1999/CE/1/1
Cost decreases, because (1)
value of the noodle (the highest-valued alternative) ↓ (2)
- 2000/CE/1/10(b)(ii)
(I) Opportunity cost is the highest-valued option forgone. (2)
(II) No, because (1)
the shares of Bank Y bought by Bank X is the chosen option, not the highest-valued option forgone. (1)
OR
the hidden debt only reduces the value of the take over. (2)
- 2001/CE/1/10(d)
The opportunity cost of gold coin purchase is the value of savings in banks. e.g. the interest return on savings in banks. (2)
A tax on interest reduces / changes the value of savings in banks, (1)
which means the opportunity cost of gold coin purchased is lowered / has changed. (1)

Microeconomics by Topic
1. Basic Concepts

- 2002/CE/1/10(c)
The cost of depositing money with one bank is the deposit interest that can be earned from other banks (2)
∴ to deposit money into those large (small) banks has a higher (lower) cost. (1)
∴ there will be a flow of deposits from those large banks to those small banks. (1)
(Remark: Mere mentioning of the definition of cost without other elaboration - NO marks)
- 2004/CE/1/2
(a) Opportunity cost is the highest-valued option forgone. (2)
(b) Not necessarily, because (1)
their highest-valued option forgone may not be the same. E.g., they may give up different jobs. (1)
(c) Not necessarily, because (1)
though their monthly salary forgone (= \$30 000) are the same, their teaching-related non-pecuniary returns and other (2)
monetary returns may not be the same.
(In other words, the value of the same job to them may be different.)
- 2005/CE/1/9
(b) (ii) The opportunity cost increases, because (1)
need to spend more time which has alternative uses (i.e. time cost increases).
OR
fuel cost increases. (1)
(c) No, because (1)
the highest-valued alternative use of the time may be different for different tunnel users. (2)
- 2006/CE/1/2
(a) Not affected because (1)
it only affects the value of studying law at a university but not the opportunity cost which is the value of studying (1)
medicine at a university.
- (b) Affected / decreased because (1)
the value of the highest-valued option forgone, i.e., the value of studying medicine at a university, decreases / changes. (1)
- 2007/CE/1/10(c)
ii) Yes, because (1)
their time cost of visiting Hong Kong would have changed (increased). (1)
iii) No, because (1)
their time cost had not changed / it only affects the value of staying 24 more hours in Hong Kong. (1)
- 2008/CE/1/9(b)(i)
The opportunity cost is the value of depositing money with banks, i.e. the interest returns from bank deposits. (2)
(I) Yes because (1)
the interest return from bank deposits increases. (1)
(2) No because (1)
the tax affects the value of stock market investments but not the cost. (1)
- 2009/CE/1/1
(a) Opportunity cost is the highest-valued option forgone. (2)
(b) No, because (1)
their alternative use of time may not be the same. (1)

2010/CE/11(c)

- (i) The opportunity cost is the return from investment in property, e.g., rental income or increase in the value of property. If the rental income rises or the value of property increases, the opportunity cost increases. (3)
- (ii) No, because it only affects the value of investing in shares but not the cost. (1)

2013/DSE/11/9(c)

- No, because people have different alternative uses of time, their time costs will not be the same. (1)

2014/DSE/11/1

- (a) Yes, because the reduction in the starting salary of administrative officers would only decrease the value of Serine's chosen option without affecting her highest valued option forgone. (1)
- (b) No, because government provision of unemployment benefits may increase the value of Serine's 3rd option to a level higher than that of the 2nd option. (1)
- the cost of choosing to work as an administrative officer may now change from the value of the 2nd option to that of the 3rd option. (1)

2015/DSE/11/1(b)

- No, because the time cost of a person taking MOOC may be higher than the time cost of another person taking on campus course plus the course fee. (1)
- OR**
- the former person (MOOC student) may have to spend extra time to access / download the course materials and to communicate with the course instructor or teaching assistant.
- OR**
- the former person may also have to pay for internet connection in order to access the course materials. (2)

2016/DSE/11/1

- The full cost of buying the new model includes the price of new model (monetary cost) plus the value of time spent logging in the website. (1)
- The resale value of the new model is not a forgone option so the cost of buying the new model does not change when such value falls.
- OR**
- The drop in resale value will lower the (speculators') demand - hence, excess demand - for the new model, reducing the time spent logging in the website and thus the time cost of buying the new model. The cost of buying the new model falls. (2)

2017/DSE/11/1

- (a) No, because the value of the highest-valued option forgone (i.e., the first option) would drop. (1)
- (b) No, because the working time in South Korea may be quite long, so that the first option would become less preferred. (1)

2018/DSE/11/1

- Full cost = monetary cost + time cost (1)
- During holiday periods, although the monetary cost of travelling abroad (including air ticket fares and hotel expenses) is usually higher than that during non-holiday periods, the time cost (e.g., income foregone) may be a lot lower. (1)
- If the time-cost saved outweighs the extra monetary cost, then in terms of full cost travelling abroad during holiday periods would be less expensive. (1)

(a) The opportunity cost will remain unchanged. It is because the height limitation only reduces the value of the reclaimed land but does not affect the highest valued option forgone.

(b) The government needs to spend extra money/resources to compete for the raw materials in the case of shortage so monetary/non-monetary cost will increase and the full cost will increase.

(3)

1.3 ECONOMIC SYSTEMS

Multiple Choice Questions

1995/CE/11/20

The Housing Authority is considering whether it should raise the income limits of families for the application of public housing. What basic economic problem(s) is/are involved in this consideration?

- A. What to produce?
- B. How to produce?
- C. For whom to produce?
- D. What and for whom to produce?

2006/CE/11/01

Since the opening of Hong Kong Disneyland, some people have suggested a reduction of the ticket price. This suggestion is related to the _____ question(s) in Economics.

- A. 'what to produce'
- B. 'how to produce'
- C. 'for whom to produce'
- D. 'what, how and for whom to produce'

2009/CE/11/03

A large number of pregnant mainland women give birth to babies in Hong Kong's public hospitals. Some people have suggested imposing an additional surcharge on these women so as to reduce the number of them in Hong Kong's public hospitals.

The above suggestion concerning the service of the public hospitals in Hong Kong is the _____ question in Economics.

- A. 'how to produce'
- B. 'for whom to produce'
- C. 'what to produce'
- D. 'how and for whom to produce'

2010/CE/11/03

Which of the following illustrates the 'For whom to produce' question in Economics?

- A. Local manufacturers set up factories in Guangdong to lower production costs.
- B. The local government is developing cruise tourism in Hong Kong and the Asia Pacific region.
- C. The Hong Kong Science Museum offers free admission to full-time students and senior citizens.
- D. More Hong Kong licensed banks are engaged in the issuance of Renminbi bonds.

2013/DSE/1/01

The Hong Kong government proposes to build new towns with residential flats and shopping malls in the North District. However, there are concerns about the ratio of public housing to private housing. Some people are also worried about the size of shopping malls, which may mainly serve mainland tourists.

The above case is related to the _____ question(s) in Economics.

- A. "for whom to produce"
- B. "what to produce" and "how to produce"
- C. "what to produce" and "for whom to produce"
- D. "how to produce" and "for whom to produce"

2014/DSE/1/04

Mei Ho House (葵荷樓), a public housing block built in the 1950s, was recently graded as a historic building in Hong Kong. The building was then turned into a hostel which provides double rooms, family rooms and disabled rooms. The above case is related to the question(s) in Economics.

- A. "how to produce"
- B. "for whom to produce"
- C. "what to produce" and "how to produce"
- D. "what to produce" and "for whom to produce"

2017/DSE/1/01

The operator of a canteen in the government headquarters decides to sell sushi and not burgers anymore because the former can earn a higher profit. This is an example of using _____ to solve the problem of _____.

- A. government command 'what to produce'
- B. government command 'for whom to produce'
- C. market mechanism 'what to produce'
- D. market mechanism 'for whom to produce'

2018/DSE/1/02

The Chief Executive proposed to raise the recurrent education spending by \$5 billion. One of her proposals was to provide a \$30 000 subsidy to eligible secondary school graduates studying self-financing programmes. The above proposal is related to the _____ question(s) in Economics.

- A. 'how to produce'
- B. 'for whom to produce'
- C. 'what to produce' and 'how to produce'
- D. 'what to produce' and 'for whom to produce'

1990/CE/11/03

Basic economic problems in a market economy are mainly solved by

- A. the government
- B. the price mechanism
- C. the entrepreneurs
- D. the consumers

1992/CE/11/05

In a market economy, the allocation of goods and services among consumers is basically determined by

- A. the preference of the government
- B. the preference of sellers
- C. the controlled prices
- D. the price mechanism

1993/CE/11/50

When a centrally-planned economy has changed and become a market economy,

- A. its government will make most economic decisions.
- B. its income distribution will be more even.
- C. private ownership of resources should have already been established.
- D. more shortages of goods and services will occur.

1994/CE/II/04

In the New Territories, an indigenous female resident (女性原居民) cannot inherit her father's property if her father dies without leaving a will. This is an example of resource allocation by

- A. government rationing.
- B. market mechanism.
- C. violence.
- D. social custom.

1994/CE/II/05

Hong Kong is considered to be a market economy because

- (1) it has a high per capita real gross domestic product (GDP).
- (2) price is used as a means to allocate resources in Hong Kong.
- (3) it has a system of low taxes.
- (4) most of its resources are privately owned.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1996/CE/II/03

Hong Kong can be described as a capitalist economy because

- A. all problems of resource allocation are solved by the price mechanism.
- B. income is unevenly distributed.
- C. not all the public utilities are owned by the government.
- D. most resources are privately-owned.

1997/CE/II/04

Which of the following statements about market economy is correct?

- A. There is no non-price competition.
- B. Competition is perfect throughout the economy.
- C. The pattern of production reflects the preferences of consumers.
- D. All resources are privately owned and controlled.

1998/CE/II/03

As compared to a market economy, a planned economy

- A. has a less even income distribution.
- B. must have a lower inflation rate.
- C. must have a lower unemployment rate.
- D. has a smaller proportion of privately-owned resources

1999/CE/II/03

In a market-oriented economy,

- A. the living standard is higher than in a command economy.
- B. the unemployment rate is lower than in a command economy.
- C. resources are mostly allocated according to price signals.
- D. all infrastructure is privately owned.

1999/CE/II/37

The government acquired a large number of stocks and shares in the stock exchange market in 1998. Which of the following is correct?

- A. It will result in a loss of foreign exchange reserves.
- B. It will lead to a contraction of the money supply M3.
- C. It will stop the speculative activities in the stock market.
- D. It will mean a greater extent of government intervention in market mechanism.

2000/CE/II/04

Which of the following markets in Hong Kong rely heavily on price mechanism to solve the three basic economic problems?

- (1) Medical service
- (2) Education
- (3) Bank loans
- (4) Electrical appliances

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

2001/CE/II/02

Which of the following statements about a market economy is correct?

- A. All markets in the economy are perfectly competitive.
- B. Most resources in the economy are owned and controlled by individuals and private firms.
- C. Income is less evenly distributed in a market economy than in a command economy
- D. The unemployment rate is higher in a market economy than in a command economy.

2002/CE/II/05

Which of the following are major determinants of the allocation of goods and services in a market economy?

- (1) the planning of government
- (2) the costs of production
- (3) the demand of consumers
- (4) the controlled prices

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2003/CE/II/04

An economy is considered as a market economy when

- A. the profits tax rate is low.
- B. prices are used to allocate resources.
- C. there is competition in all industries.
- D. there are no restrictions on the entry and exit of firms to all markets.

2004/CE/11/04

Compared to a command economy, a market-oriented economy has

- A. a less even income distribution.
- B. keener competition for goods and services.
- C. more production guided by price signals.
- D. no problem of scarcity.

2005/CE/11/08

Which of the following statements is a correct description of a market-oriented economy?

- A. Most resources are privately owned.
- B. All economic problems are solved by the price mechanism.
- C. Income is less evenly distributed than in a command economy.
- D. There is no non-price competition.

2006/CE/11/04

In a market economy, which of the following are guided by price signals?

- (1) resource allocation
- (2) production decisions
- (3) consumption decisions

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2007/CE/11/03

Compared to a planned economy, a market economy must

- A. have a larger income gap between the rich and the poor.
- B. have higher inflationary pressure.
- C. have a higher unemployment rate.
- D. have a greater proportion of resources directed by the price mechanism.

2008/CE/11/03

An economy is considered as market-oriented when

- A. most of the markets are perfectly competitive.
- B. most of the resources are allocated by the price mechanism.
- C. most of the goods are economic goods.
- D. most of the public utilities are privately owned.

2009/CE/11/04

Which of the following statements about a market-oriented economy is correct?

- A. People who live in a market economy are richer than those in a planned economy.
- B. Most resources are used for producing consumer goods.
- C. Most markets are perfectly competitive.
- D. Most resources are privately owned.

2010/CE/11/05

In a market-oriented economy,

- A. most markets are perfectly competitive.
- B. most resources are allocated by prices.
- C. most production plans are made by the central authority.
- D. most firms produce consumer goods.

2015/DSE/1/03

Which of the following is a characteristic of a market economy?

- A. Income distribution is uneven in the economy.
- B. The government has no role in regulating business activities in the economy.
- C. Most factors of production in the economy are privately owned.
- D. There is only price competition in the economy.

2018/DSE/1/01

Which of the following statements about a planned economy is correct?

- A. The quantity of public goods in the economy is greater than that in a market-oriented economy.
- B. Most production activities are carried out by government officials.
- C. All resources are allocated by government commands.
- D. Competitions still exist in the economy.

Short & Structured Questions

1996/CE/11/10(d)

Country A is a planned economy and Country B is a market economy. Explain TWO differences between these two types of economic systems. (4 marks)

2019/DSE/1/02

Which of the following statements are related to the problem of "for whom to produce"?

- (1) Only the elderly and eligible persons with disabilities can enjoy a concessionary fare of \$2 per trip under the Public Transport Fare Concession Scheme.
- (2) Public rental housing (PRH) households whose family income exceeds 5 times the PRH income limits should vacate their PRH flats.
- (3) The e-Sports & Music Festival moved from Hong Kong Convention and Exhibition Centre to Hong Kong Coliseum to house more fans from all over the world.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2020/DSE/1/1

If a command economy turns into a market-oriented economy,

- (1) the income distribution of the economy will be more uneven.
- (2) more resources will be allocated by price mechanism.
- (3) people will have private property rights over all resources.

- A. (1) only
- B. (2) only
- C. (3) only
- D. (1), (2) and (3)

MARKING SCHEME

1995/CE/II/20 C	2018/DSE/A/02 D (81%)	1997/CE/II/04 C	2003/CE/II/04 B (62%)	2010/CE/II/05 B (79%)
2006/CE/II/01 C (54%)	1990/CE/II/03 B	1998/CE/II/03 D	2004/CE/II/04 C (55%)	2015/DSE/I/03 C (75%)
2009/CE/II/03 B (56%)	1992/CE/II/05 D	1999/CE/II/03 C	2005/CE/II/08 A (46%)	2018/DSE/I/01 D (59%)
2010/CE/II/03 C (84%)	1993/CE/II/50 C	1999/CE/II/37 D	2006/CE/II/04 D (58%)	2019/DSE/I/02 A
2013/DSE/I/01 C (76%)	1994/CE/II/04 D	2000/CE/II/04 D	2007/CE/II/03 D (80%)	2020/DSE/A/ D
2014/DSE/A/04 D (75%)	1994/CE/II/05 C	2001/CE/II/02 B	2008/CE/II/03 B (75%)	
2017/DSE/A/01 C (90%)	1996/CE/II/03 D	2002/CE/II/05 C (74%)	2009/CE/II/04 D (72%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1996/CE/II/10(d)

In Country A, most resources are allocated according to government plans and commands; in Country B, the allocation of most resources is guided by the market mechanism. (2)

In Country A, most resources are privately owned by individuals; in Country B, most resources are owned by the government. (2)

1.4 POSITIVE AND NORMATIVE STATEMENTS

1986/AL/II/01
Economics is a science because

- A. economic predictions are stated in the form of 'if A happens then B will necessarily follow'.
- B. of the widespread application of mathematical and statistical methods in economic research.
- C. (out of syllabus)
- D. it helps to improve society.

1986/AL/II/02
Economic theory is useful because

- A. (out of syllabus)
- B. it is always true.
- C. it can be rejected by evidence.
- D. it tells us what is right or wrong.

1987/AL/II/29
An economic theory is useful or testable if

- A. it is potentially refutable by facts.
- B. it is logically consistent.
- C. it is not always true.
- D. all of the above.

1998/AL/II/22 (modified)
Which of the following are refutable by facts?

- (1) The area of Victoria Park is greater than that of Kowloon Park.
- (2) Visitors should not litter in public area.
- (3) The quantity of vegetables supplied increases because more quantities are available for sale.
- (4) The price of vegetables increases because the cost of production rises.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (3) and (4) only
- D. (1), (3) and (4) only

2004/AL/III/03
A necessary condition for a theory to be useful in explaining behaviour is:

- A. that it is always true.
- B. that it must be conceivably false.
- C. that it is rejected by facts some of the time.
- D. that it is supported by facts most of the time.

2011/AL/II/03
Economics is a positive science because

- A. its theories contain testable implications.
- B. it yields predictions in the form of "if A then B".
- C. (out of syllabus)
- D. Both (A) and (B) are correct.

SP/DSE/1/03

A positive statement

- A. is always true.
- B. is refutable with facts.
- C. may contain a value judgment.
- D. may be the same as a normative statement if certain values are shared by many people.

2012/DSE/1/01

Which of the following statements are positive statements?

- (1) More workers will be employed on a part-time basis after the imposition of a minimum wage.
- (2) Less low skilled workers will be unemployed after the imposition of a minimum wage.
- (3) Meal times should be counted as working time in the calculation of a minimum wage.
- (4) The imposition of a minimum wage widens the income gap between the rich and the poor.

- A. (2) and (3) only
- B. (1) and (4) only
- C. (1), (2) and (3) only
- D. (1), (2) and (4) only

2015/DSE/1/01

Which of the following are positive statements?

- (1) Importation of labour from the mainland would result in a rise in job vacancies in Hong Kong.
- (2) It would be better to import labour from Guangdong province because they can speak Cantonese.
- (3) Productivity of labour from China is higher than that from other Southeast Asian countries.
- (4) Unemployment rate in Hong Kong would raise by 15% as a result of labour importation of 30 000 from the mainland.

- A. (1) and (2) only
- B. (3) and (4) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

2018/DSE/1/04

The following statements are adapted from the 2017-18 Budget Speech by the Financial Secretary of Hong Kong.

Statement (1): The global economy in 2016 recorded the slowest growth since the global financial crisis.

Statement (2): For 2016 as a whole, there was a growth of 1.9%, consistent with the 1% to 2% economic growth as forecast in last year's Budget.

Statement (3): While recognising the effect of market forces, the Government should play an active role as a facilitator by taking forward appropriate policies with good use of public resources.

Which of the above is a normative statement / are normative statements?

- A. (1) only
- B. (3) only
- C. (1) and (2) only
- D. (2) and (3) only

MARKING SCHEME

1986/AL/1/01 A	1987/AL/1/29 D	2004/AL/1/03 B (56%)	SP/DSE/1/03 B	2015/DSE/1/01 C (71%)
1986/AL/1/02 C	1998/AL/1/22 B (modified)	2011/AL/1/03 D (84%)	2012/DSE/1/01 D (67%)	2018/DSE/1/04 B (79%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1.5 COMPETITION AND DISCRIMINATION

Multiple Choice Questions

1986/AL/1/07

Which of the following is NOT a form of competition?

- A. racial discrimination
- B. waiting in line
- C. paying a price for a product
- D. breathing in a desert

1987/AL/1/06

Scarcity implies

- A. there is no such thing as a free good.
- B. competition is inevitable.
- C. a lack of proper planning.
- D. price is the only viable criterion for the allocation of resources.

1987/AL/1/10

Which of the following statements about economic good is FALSE?

- A. An economic good is a good for which the amount available is less than the amount people want at zero price.
- B. An economic good is a good that is subject to competition.
- C. An economic good is a good for which more of it is not preferred.
- D. None of the above.

1987/AL/1/18

Which one of the following statements about competition is FALSE?

- A. Waiting in line is a form of competition.
- B. The rules of competition define the criteria that determine who wins and who loses.
- C. Price is the main criterion of competition in a capitalist economy.
- D. There is no competition in a socialist economy because resource allocation is determined by the government.

1990/AL/1/18

The Open Learning Institute accepted only 3 000 students out of 60 000 applicants. Which of the following methods of allocating the places would be discriminatory?

- A. First come, first served.
- B. Raising the entrance requirements until only 3 000 applicants were eligible.
- C. Random selection by computer.
- D. All of the above.

1992/AL/1/05

Scarcity

- A. is implied by the existence of price.
- B. is the same as shortage.
- C. applies to all kinds of goods.
- D. All of the above.

1992/AL/1/09

Recently, some housing developers in Hong Kong have begun selling housing units by lottery. That is, at their asking price, there are too many buyers queuing up to buy the flats. So, in addition to the purchase price, a buyer must be a winner in the lottery. This implies

- A. competition for private flats is reduced since buyers no longer need to line up for days.
- B. efficiency is improved.
- C. a change in the form of competition.
- D. the Hong Kong government is imposing a control on the price of flats.

1993/AL/1/21

Scarcity

- A. is implied by the existence of price.
- B. implies competition in society.
- C. does not exist for a free good.
- D. All of the above.

1994/AL/1/02

Scarcity

- A. is the same as shortage.
- B. exists for all goods.
- C. can be eliminated by the price mechanism.
- D. implies competition and discrimination.

1995/AL/1/01

Which of the following statements about competition is correct?

- A. Competition is inevitable because there is no such thing as a free good.
- B. There is no competition in a centrally planned economy.
- C. All competitions are discriminative.
- D. Price is the only criterion of competition.

2001/AL/1/06

In a society, scarcity

- A. implies competition.
- B. implies discrimination.
- C. implies a willingness to sacrifice.
- D. All of the above.

2004/AL/1/02

Competition will NOT arise if

- A. all individual are identical.
- B. there is a monopoly in each and every market.
- C. there is no market.
- D. all goods are free goods.

2005/AL/1/03

Which one of the following pairings has terms that are closest in meaning?

- A. scarcity and shortage
- B. monopoly and competition
- C. private property and social cost
- D. competition and discrimination

2007/AL/1/03

Scarcity implies

- A. the market is the most efficient place for allocating resources.
- B. shortage if the market does not exist.
- C. the concept of equilibrium is essential.
- D. some people must be discriminated against in a society.

2007/AL/1/25

Non-price competition implies

- A. surplus.
- B. shortage.
- C. scarcity.
- D. monopoly.

2009/AL/1/01

Which of the following statements about scarcity and shortage is correct?

- A. Whenever there is shortage, there must be scarcity.
- B. In a one-man economy, there may be shortage.
- C. Whenever there is scarcity, there must be shortage.
- D. Scarcity necessarily implies competition.

2012/AL/1/03

A university hall accepts only 20 students out of 8 000 applicants. Which of the following methods of allocating the places would be discriminatory?

- A. selection based on the applicants' travelling time to the university
- B. first-come-first-served
- C. random selection by computer
- D. All of the above

Short & Structured Questions

1991/AL/1/3

'Whenever there is scarcity, there is competition.' Defend this statement.

'Whenever there is competition, there is discrimination.' Defend this statement also.

(8 marks)

2012/DSE/11/5(a)

Country A has imposed an effective price ceiling on Good X. Suppose Country A eliminates all illegal transactions of Good X. Can this price control ensure all lower income buyers obtain the quantity of Good X they plan to purchase? Explain.

(4 marks)

MARKING SCHEME

1986/AL/1/07 D	1990/AL/1/18 D	1994/AL/1/02 D	2005/AL/1/03 D (81%)	2012/AL/1/03 D (86%)
1987/AL/1/06 B	1992/AL/1/05 A	1995/AL/1/01 C	2007/AL/1/03 D (88%)	
1987/AL/1/10 C	1992/AL/1/09 C	2004/AL/1/06 D	2007/AL/1/25 C (62%)	
1987/AL/1/18 D	1993/AL/1/21 D	2004/AL/1/02 D (86%)	2009/AL/1/01 A (49%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/AL/1/3

A good is said to be scarce if, to an individual, more of it is preferred to less of it.

When more than one individuals in society want more of the same good, competition is implied.

With competition, some criterion is needed to determine who wins and who loses. For whatever criterion chosen, it will necessary be discriminatory in nature because different individuals will have different advantages in winning under the same criterion.

2012/DSE/11/5(a)

No, because

when there is excess demand / shortage, non-price competition, such as queuing, will emerge, and the new competitive criteria does not necessarily depend on income.

(1)

(3)

1.6 PROPERTY RIGHTS

Multiple Choice Questions

1988/AL/1/23

Under private property rights, the main criterion used to allocate resources is

- A. seniority.
- B. price.
- C. rank
- D. wealth

1990/AL/1/29

In an ocean which is NOT privately-owned, fish

- A. are a free good, because they are so abundant that more of them are not wanted.
- B. are not an economic good if the fishermen are not allowed by the government to compete among themselves.
- C. are a public good, because the fish are publicly-owned.
- D. are an economic good, because we are willing to sacrifice something in exchange for the fish.

1992/AL/1/24

If private ownership of a forest is abolished, and the forest is subject to common exploitation,

- A. the rate of depletion will remain unchanged.
- B. the trees will become a public good.
- C. the private cost of cutting trees will differ from the social cost.
- D. the trees will become a free good because they no longer have a price.

1994/AL/1/10

If the beach in Repulse Bay is privatized,

- A. the rate of utilization will remain unchanged.
- B. the rate of utilization will most likely be reduced.
- C. the beach will be cleaner than before.
- D. the poor will be deprived of the opportunity to use the beach.

1994/AL/1/18

The Home Ownership Scheme (HOS) usually attracts 10 times more applications than the number of flats available for sale. At present, selection is done randomly by computer, and the flats are not transferable within ten years of purchase. If new HOS flats are freely transferable,

- A. less applications would be expected.
- B. even more applications would be expected.
- C. the poor will sell their HOS flats to the rich.
- D. the rich will sell their HOS flats to the poor.

1994/AL/1/26

Which of the following is/are associated with private property rights?

- A. the right to use the property exclusively
- B. the exclusive right to enjoy income from the property
- C. the right to sell the property outright
- D. All of the above.

1995/AL/1/16

An apple tree subject to unrestrained common exploitation

- A. has no market value.
- B. will be harvested later.
- C. is a public good.
- D. has a positive price.

1997/AL/1/12

The Diaoyu Islands (釣魚台) issue shows that

- A. there is a cost in defining and enforcing property rights.
- B. exchange is impossible without private property rights.
- C. demonstrators pay a cost in exploitation of the common property.
- D. All of the above.

1997/AL/1/19

A common property

- A. has no market price.
- B. always implies allocative inefficiency.
- C. always has a zero consumer surplus.
- D. (out of syllabus)

2000/AL/1/28

A common property

- A. induces non-price competition.
- B. is a free good because it has no market price.
- C. is a good that can be consumed concurrently by more than one individual.
- D. is a good owned collectively by more than one individual.

2004/AL/1/26

Property rights arise whenever

- A. there is scarcity.
- B. there is a society.
- C. there is a society with scarcity.
- D. production is subject to the law of diminishing returns.

2010/AL/1/20

Which of the following statements about private property rights is correct?

- A. Private property rights may exist without a court of law.
- B. Private property rights may be protected by local customs.
- C. Private property rights are an essential prelude for market transactions.
- D. All of the above

2011/AL/1/02

Scarcity in society implies

- A. shortage.
- B. the emergence of private property rights.
- C. the existence of price.
- D. there is no such thing as a free good.

2011/AL/1/25

Which of the following statements about property rights is correct?

- A. Property rights arise only when resources are allocated through the price mechanism.
- B. Property rights arise whenever there is scarcity.
- C. Property rights arise when individuals in a society compete for resources.
- D. All of the above

2016/DSE/1/05

Marlene had bought a cookery book from a bookstore. Her friend, Kitman, said to her, "You have private property rights to this cookery book." Which of the following rights would Marlene have after the purchase of the book?

- (1) To follow the recipes in the book in preparing a dinner for Kitman
- (2) To scan and upload the whole book to her blog
- (3) To leave the book on the bookshelf without reading it
- (4) To lend the book to Kitman and ask for a dinner in return

- A. (1), (2) and (3) only
- B. (1), (2) and (4) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

2019/DSE/1/01

Refer to the following suggestion for tackling the housing problem.

The government should build a new type of housing, called Easy Living, for which the owners can lease their flats at a controlled rent. If the owners want to sell their flats, they can only sell them back to the government.

Compared with owning a private housing unit, _____ will be weakened for those owning an Easy Living housing unit.

- (1) the right to use
 - (2) the right to receive income
 - (3) the right to transfer
- A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

Short & Structured Questions

1993/AL/1/8

In Hong Kong, during the week before the Chinese New Year, many flower bazaars are organized by the government to let vendors sell their New Year commodities to the public. The government allocates the right to operate each stall by tender or bids and the right to operate a stall goes to the vendor who bids the highest price for it. The bidding is usually held a month in advance. Therefore, events that happen after the bidding which would affect the income from operating a stall would not be reflected in the bid. The right to operate a stall is not transferable.

If the right to operate a stall was transferable, would the government receive higher bids for the stalls? Explain. (10 marks)

2004/AL/1/7(b)

Many people go deer hunting. It is reported that among all the people who go deer hunting, less than 10 per cent of them (the superior hunters) get more than 90 per cent of the hunted deer, while the remaining 90 per cent or more of them (the inferior hunters) get less than 10 per cent, or each of them get hardly any deer. Assume for this question that all people who go deer hunting have the same time cost and that they enjoy hunting equally.

As private property rights to the deer in the wild are not assigned to any individual or a group of individuals by law or by custom, are there any private property rights to the deer in the wild? Explain. (Hint: Imagine an extreme case where only one of the participants knows how to hunt.) (6 marks)

2013/DSE/1/2(a)

The Hong Kong government plans to introduce the "Hong Kong Property for Hong Kong Residents" policy. The flats built under the policy can only be sold to Hong Kong permanent residents within 30 years.

What are private property rights? Explain why the private property rights over the flats may be weakened under this policy. (4 marks)

MARKING SCHEME

1988/AL/1/23 B	1994/AL/1/10 B	1995/AL/1/16 A	2000/AL/1/28 A	2011/AL/1/02 C (51%)
1990/AL/1/29 D	1994/AL/1/18 C	1997/AL/1/12 D	2004/AL/1/26 C (78%)	2011/AL/1/25 C (56%)
1992/AL/1/24 C	1994/AL/1/26 D	1997/AL/1/19 A	2010/AL/1/20 D	2016/DSE/1/05 C (88%)

2019/DSE/1/01

C

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1993/AL/1/3

At the time of auction, the future is not certain. Events may happen which would affect the value of the bid. If the bid is transferable, a bid winner may transfer his rights to another operator if adverse events happen that are particularly harmful to him. Therefore, bidders are willing to offer higher bids in the case where the bid is transferable.

Even if no unexpected events were to follow, the bids may still be higher with transferable rights because the bidders must be aware at the time of the bidding that their decisions might be mistakes, given positive information costs.

2004/AL/1/7(b)

Yes, there are, property rights to the deer in the wild are delineated by the know-how or special skills of the less-than-10-percent superior hunters. This is just like a strong man occupying a piece of land without legal assignment will have an implicit claim to the land if no competitor can take it away or infringe upon his use rights.

2013/DSE/1/2(a)

Private property rights refer to the exclusive right to use, the exclusive right to receive income from, and the right to transfer a property owned by an individual. (3)

The private property rights over the flats under the scheme are weakened as the flat-owners' right of transferring their flats to non-residents is confined. (1)

1.7 INTEREST

1989/AL/1/20

'Interest will not exist without money.' This statement is

- A. true because interest is the premium of present over future money.
- B. true because in the loan market, we pay interest when we borrow.
- C. false because interest is the premium of present over future consumption.
- D. false because interest is a payment for liquidity.

1993/AL/1/28

'Interest exists even without money.' This statement is

- A. true because we pay interest when we borrow.
- B. true because interest is the premium one pays for the earlier availability of goods.
- C. false because interest is a compensation for inflation.
- D. false because money is used in all societies

1998/AL/1/26

Which of the following statements about interest is true ?

- A. Interest will not exist without money.
- B. Interest is a price for the earlier availability of a good.
- C. If there is no inflation, the interest rate will be zero.
- D. (out of syllabus)

2003/AL/1/24

Which of the following statements about interest is correct?

- A. Interest is a premium received for postponing current consumption.
- B. (out of syllabus)
- C. A more patient individual is willing to pay a higher interest rate for earlier consumption.
- D. If there is deflation, interest rate must be negative.

2006/AL/1/11

Interest exists in the absence of

- A. money.
- B. risks.
- C. a banking system.
- D. All of above.

2012/DSE/1/3

Which of the following statements about interest is correct?

- A. People will reduce current consumption when the interest rate drops.
- B. The interest rate will be zero if there is no inflation.
- C. Interest does not exist in a planned economy.
- D. Interest still exists without money.

2016/DSE/1/4

Which of the following statements about interest are correct?

- (1) Interest is the compensation for deferring consumption.
- (2) Interest exists because people are impatient to wait.
- (3) Interest exists in a barter economy.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2017/DSE/1/2

Which of the following statements about interest is correct?

- A. Without money, interest does not exist.
- B. Without inflation, interest does not exist.
- C. Without scarcity, interest does not exist.
- D. Interest is the compensation paid to the borrower for delayed consumption.

Short & Structured Questions

1992/AL/1/2

Interest is a price. Why is it a price? What is it a price of? (12 marks)

2004/AL/1/5

'Interest would not exist without money.' Do you agree? Explain. (8 marks)

PP/DSE/II/1

Peter borrowed a book from Mary and he promised to return the book with a bookmark to her a month later at her request. Explain why the bookmark could be regarded as "interest" to both Peter and Mary. (4 marks)

MARKING SCHEME

1989/AL/1/20 C	1998/AL/1/26 B	2006/AL/1/11 D (78%)	2016/DSE/1/4 D (45%)
1993/AL/1/28 B	2003/AL/1/24 A	2012/DSE/1/3 D (90%)	2017/DSE/1/2 C (53%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1992/AL/1/2

Interest is a price because it is a sacrifice one must make to exchange for an economic good.

It is a price one pays for the earlier availability of goods or a price one pays for earlier over later consumption.

2004/AL/1/5

Disagree. Interest is the price of earlier availability of goods, and without money this price or premium still exists as long as a market (for borrowing and lending) exists. Hence it may be charged in a barter economy.

I loan you an apple, when you return it a year later, our agreement would be you return an apple plus a bite from another apple. That bite is interest. Money is not implied.

PP/DSE/II/1

To Peter: The bookmark was the price / premium he paid for the earlier availability of the book. (2)

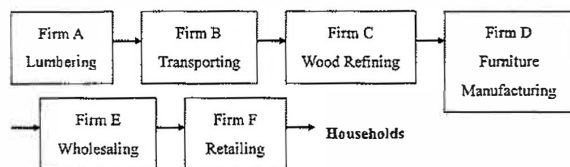
To Mary: The bookmark was the compensation she received for deferring consumption. (2)

SECTION 2: PRODUCTION

2.1 TYPES OF PRODUCTION

Multiple Choice Questions

1990/CE/II/27



The following shows the production stages of furniture manufacturing. Which firms belong to the tertiary production?

- A. Firms A, B and C
- B. Firms A, C and D
- C. Firms B, E and F
- D. Firms D, E and F

1991/CE/II/04

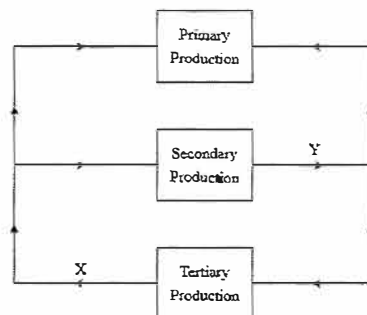
Mr. Wong, who is a farmer, also works as a part-time taxi-driver. Which stage(s) of production is he engaged in?

- A. secondary production only
- B. tertiary production only
- C. primary and tertiary production only
- D. secondary and tertiary production only

1991/CE/II/05

The above diagram shows the interdependence among the three stages of production. The flows of 'X' and 'Y' should be labelled respectively as

- A. natural resources and consumer goods
- B. natural resources and capital goods
- C. services and consumer goods
- D. services and capital goods



1992/CE/II/04

Which of the following is classified as consumption?

- A. A student saves up unused Christmas cards until next Christmas.
- B. A student helps to clean his classroom.
- C. Mrs. Hong teaches a TV audience how to cook.
- D. A student watches a music TV programme.

1993/CE/II/04

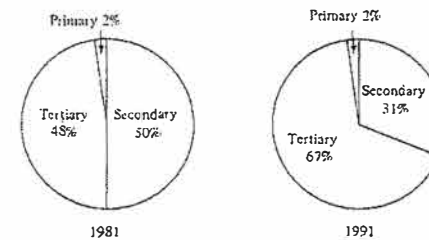
Which of the following are examples of tertiary producers?

- (1) a pop singer
- (2) a baker
- (3) a bank teller
- (4) a truck driver
- (5) a film-developing operator

- A. (1), (2) and (5) only
- B. (1), (3) and (4) only
- C. (1), (5) and (5) only
- D. (2), (3) and (4) only

1993/CE/II/05

Employment in primary, secondary and tertiary industries in 1981 and 1991



Based on the above information,

- A. the primary sector employed the same number of workers in 1981 and 1991
- B. the total value of secondary products was lower in 1991
- C. tertiary production is becoming more important in terms of its contribution to employment
- D. real income earned in the tertiary sector was higher in 1991

1994/CE/II/60

Which of the following activities is NOT classified as production?

- A. a mother teaching her child to read
- B. a son helping his mother to serve dinner at home
- C. a father repairing a TV set at home
- D. a daughter playing with her cat at home

1995/CE/II/04

Mary is a sewing worker in a garment factory in the daytime. In the evening, she works as a waitress in a restaurant. Mary is a _____ producer.

- A. secondary
- B. tertiary
- C. primary and secondary
- D. secondary and tertiary

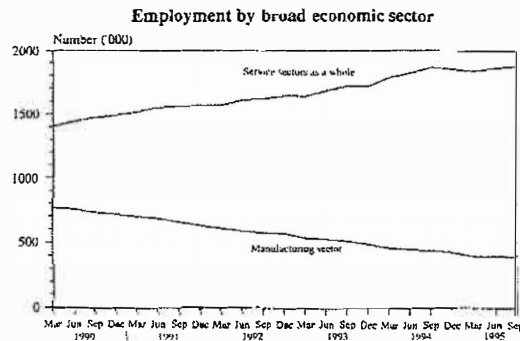
1995/CE/II/15

	% share in total employment	
	1982	1992
Manufacturing sector	45%	19%
Services sector	50%	78%
Others	5%	3%
Total	100%	100%

From the above table, we can conclude that

- A. the manufacturing sector had a big fall in employment in 1992 as compared to 1982.
- B. the services sector had a great increase in employment in 1992 as compared to 1982.
- C. the services sector employed the largest number of working people in 1992.
- D. the services sector accounted for a greater proportion of gross domestic product (GDP) than the manufacturing sector in 1992.

1997/CE/II/28



Source : HONG KONG 1996, Hong Kong government

According to the above graph, which of the following descriptions of the labour force in Hong Kong from March 1990 to September 1995 is correct?

- A. In terms of employment, the manufacturing sector was declining while the service sector was growing.
- B. The output per employee in the manufacturing sector was falling.
- C. One major source of manpower in the service sector was imported labour, including domestic servants.
- D. The real wage of the service sector was increasing.

2002/CE/II/12

Which of the following statements about production is correct?

- A. Developed countries have no primary production.
- B. Students selling flags for charity organizations are engaging in production.
- C. An Indian restaurant engages in tertiary production only.
- D. The car repair work belongs to secondary production.

2003/CE/II/15

Which of the following activities are classified as production in economics?

- (1) a man delivering newspapers
- (2) a girl sewing her own dress
- (3) a boy selling pirated compact discs (CD)

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2004/CE/II/19

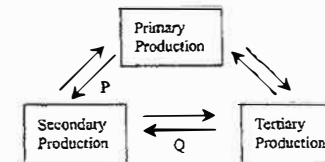
	% share of total employment	
	Country A	Country B
Primary production	3	1
Secondary production	46	25
Tertiary production	51	74

From the above table, we can conclude that

- A. most people in country B enjoy a higher living standard than most people in country A.
- B. most people in each of the countries engage in tertiary production.
- C. more people engage in tertiary production in country B than in country A.
- D. All of the above are correct.

2005/CE/II/14

The following graph shows the relationship of the three stages of production. What does P and Q stand for respectively?



- A. services; consumer goods
- B. producer goods; consumer goods
- C. raw materials; services
- D. natural resources; producer goods

2007/CE/II/13

The following table shows the employment distribution of Hong Kong.

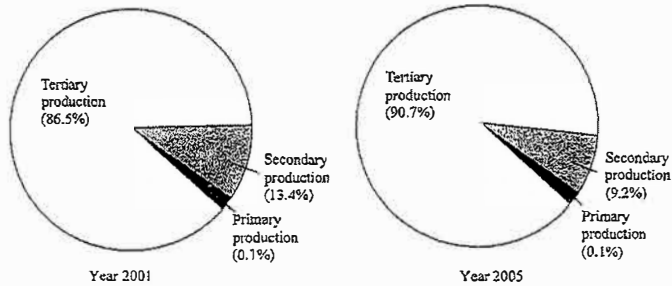
Sector \ Year	1985	1997	2005
Primary	2.2%	0.5%	0.4%
Secondary	43.5%	20.4%	13.7%
Tertiary	54.3%	79.1%	86.0%
(Total)	100%	100%	100%

From the above table, we can conclude that from 1985 to 2005,

- A. the number of people engaged in the primary and secondary sectors decreased while that in the tertiary sector increased.
- B. the overall unemployment rate remained constant.
- C. the contribution to gross domestic product (GDP) of the tertiary sector increased.
- D. the relative importance of the secondary sector in terms of employment decreased.

2008/CE/II/13

Hong Kong's gross domestic product (GDP) at factor cost was higher in 2005 than in 2001. The charts below show the contribution to GDP at factor cost by sectors in 2001 and 2005, respectively.



Based on the above information, we can conclude that in the year 2005

- A. workers in the tertiary sector on average earned more than those in the secondary sector.
- B. the labour productivity of the secondary sector decreased.
- C. the output value of the primary sector increased.
- D. the number of workers in the tertiary sector increased.

2010/CE/II/15

Study the following information about an economy:

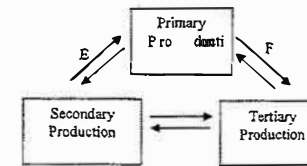
	% of total employment	
	In 1999	In 2009
Primary production	39	5
Secondary production	21	30
Tertiary production	40	65
(Total)	100	100

From the above table, we can conclude that

- A. the primary sector's relative importance in total employment has decreased in 2009 because its average labour productivity has increased.
- B. most people have a higher living standard in 2009 than in 1999.
- C. the number of workers engaged in the secondary sector in 2009 may be larger or smaller than that in 1999.
- D. the tertiary sector contributes the largest share to the gross domestic product (GDP) for 2009.

2014/DSE/II/10

The following graph shows the relationship of the three stages of production. What do E and F stand for respectively?



- A. consumer goods; raw materials
- B. producer goods; services
- C. raw materials; services
- D. producer goods; raw materials

Short & Structured Questions

1990/CE/1/1(a)(ii)

Mrs Wong is a lawyer and is also good at doing housework, but she employs a Filipino maid to do her housework.

To what stage of production does the work done by Filipino maids belong? Explain. (2 marks)

1996/CE/1/2

'Sphagetti House' is a fast-food shop selling pizzas and other Italian dishes. Name and explain the type(s) of production that the shop is engaged in. (4 marks)

2004/CE/1/9(d)

Explain which type of production car agents belong to. (2 marks)

2015/DSE/II/(a)

Many electronic product retailers are located in Mong Kok.

To which type of production do electronic product retailers belong? Explain your answer. (2 marks)

2017/DSE/II/13(a)(i)

To cope with the problem of a rapidly aging population in Hong Kong, the government has proposed a retirement protection scheme under which eligible elderly would receive \$38 760 per year.

Mr. Chan, a street sleeper, is eligible to receive \$38 760 under this scheme. He would be able to afford the service of an elderly care centre and would spend \$30 000 of the money to pay the yearly charges.

To which type of production does elderly care service belong? (1 mark)

MARKING SCHEME

1990/CE/1/27 C	1993/CE/1/04 B	1995/CE/1/15 C	2004/CE/1/19 B (43%)	2010/CE/1/15 C (49%)
1991/CE/1/04 B	1993/CE/1/05 C	1997/CE/1/28 A	2005/CE/1/14 C (81%)	2014/DSE/II/10 D (67%)
1991/CE/1/05 D	1994/CE/1/60 D	2002/CE/1/12 B (54%)	2007/CE/1/13 D (55%)	
1992/CE/1/04 D	1995/CE/1/04 D	2003/CE/1/15 D (26%)	2008/CE/1/13 C (19%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/1/1(a)(ii)

Tertiary production, because provision of service. (1)
(1)

1996/CE/1/2

Secondary production - food materials are cooked in the shop and turned into cooked food. (2)
Tertiary production - when having meals, customers are served by waiters in the shop. (2)

2004/CE/1/9(d)

Tertiary production, because they provide services. (1)
(1)

2015/DSE/II/(a)

Tertiary production, because it provides retail services. (1)
(1)

2017/DSE/II/13(a)(i)

Tertiary production. (1)

2.2 CONSUMER GOODS AND PRODUCER GOODS

Multiple Choice Questions

1992/CE/II/06

Air-conditioners used in restaurants can be classified as

- (1) capital goods
- (2) consumer goods
- (3) scarce goods

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1995/CE/II/14

Electric fans installed in classrooms are classified as

- (1) consumer goods.
- (2) capital goods.
- (3) economic goods.

- A. (1) only
- B. (2) only
- C. (1) and (3) only
- D. (2) and (3) only

1996/CE/II/02

A department store reduced the price of its television sets but there was still unsold stock. These television sets are

- A. free goods because the quantity supplied is greater than the quantity demanded.
- B. consumer goods because they are sold at a department store.
- C. capital goods because they are man-made.
- D. economic goods because people have to pay a price for them.

1999/CE/II/02

Jenny won a cooking competition and was awarded a famous brand microwave oven. This microwave oven is

- A. a free good because Jenny does not need to pay for it.
- B. a consumer good because it is a prize in the competition.
- C. an economic good because other competitors want to have it.
- D. a capital good because it has a market value.

1999/CE/II/10

Which of the following are capital goods of a school?

- (1) teacher's knowledge of economics
- (2) notes taken by the students
- (3) watch-dogs

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2007/CE/II/12

Flour is a _____ when _____.

- A. capital good it is used by Mrs Chan to make a cake for her daughter's birthday
- B. consumer good it is for sale in the market
- C. capital good it is used in a cooking program shown on the television
- D. consumer good it is packed for delivery to customers

2009/CE/II/14

Some resort hotels in Japan provide natural hot springs for their customers. These resort hotels are engaged in and these hot springs are classified as

- A. primary production producer goods
- B. tertiary production producer goods
- C. secondary production consumer goods
- D. tertiary production consumer goods

2016/DSE/II/02

During the Hong Kong Computers and Communications Festival, the organisers distribute USB flash drives to the participants as gifts. To the organisers, these USB flash drives are _____.

- (1) economic goods
- (2) producer goods
- (3) consumer goods

- A. (2) only
- B. (3) only
- C. (1) and (2) only
- D. (1) and (3) only

MARKING SCHEME

1992/CE/II/06
B

1996/CE/II/02
D

1999/CE/II/10
B

2009/CE/II/14
B (55%)

1995/CE/II/14
D

1999/CE/II/02
C

2007/CE/II/12
C (56%)

2016/DSE/II/02
C (66%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2020/DSE/II/4

2.3 FACTORS OF PRODUCTION

Multiple Choice Questions

1990/CE/II/13

Which of the following is an example of 'land' in economics?

- A. reservoirs
- B. factories
- C. rubber plantations
- D. mineral deposits

1991/CE/II/10

Which of the following is an example of land in economics?

- A. reclaimed land
- B. crude oil underground
- C. gasoline stored underground
- D. Victoria Harbour following improvements

1992/CE/II/07

The war in the Middle East has led to fires in the oil wells in Kuwait. Teams of firemen were there risking their lives to put out the fires. Economists classify crude oil as _____, oil pumps as _____, firemen as _____ and the owners of the oil wells as _____.

- A. capital capital entrepreneurs entrepreneurs
- B. capital land labour labour
- C. land land capital entrepreneurs
- D. land capital labour entrepreneurs

1993/CE/II/08

Which of the following belongs to the factor of production 'land'?

- A. the reclaimed land in West Kowloon
- B. the fishing grounds in the South China Sea
- C. the MacLehose Trail
- D. the killer whale in the Ocean Park

1996/CE/II/15

Which one of the following is an example of land?

- A. solar energy collected from sunlight by a power plant
- B. rainwater collected in reservoirs
- C. land reclaimed from the sea
- D. dew on farmland in the morning

1997/CE/II/13

Which of the following is classified as land in economics?

- A. live fishes sold in a seafood restaurant
- B. silver ore in a mine
- C. the newly reclaimed land in Western Kowloon
- D. a piece of cultivated land

1998/CE/II/12

Which of the following is classified as land in economics?

- A. Land reclaimed along the Victoria Harbour
- B. Fish caught in the high seas (公海)
- C. Plants grown in the country parks
- D. Crude oil newly discovered underground

1999/CE/II/11

Land is different from capital in that

- A. Land cannot be increased but the capital can.
- B. Land is more demand inelastic than capital.
- C. The use of land does not cost anything but the use of capital does.
- D. Land is less occupationally mobile than capital.

2000/CE/II/14

'Wild birds in the forests are classified as land in economics.' This statement is

- A. true, because they are free goods
- B. true, because they are natural resources.
- C. false, because they can move while land is geographically immobile.
- D. false, because their supply is not fixed.

2003/CE/II/16

Which of the following statements about 'land' is correct?

- A. The supply of land may be increased through human effort.
- B. The supply of land may change over time.
- C. Land is a free good because it is part of nature.
- D. Land is a scarce good because it cannot be produced.

2005/CE/II/15

Which of the following is classified as land in economics?

- A. soil with chemical fertilizers added to it
- B. trees in a plantation area
- C. underground coal reserves
- D. a piece of cultivated land

2007/CE/II/16

Which of the following statements about land is correct?

- A. Crude oil unextracted is land because it is fixed in supply.
- B. Ocean is land because it is geographically immobile.
- C. Rainfall on a piece of farmland is land because it is a gift of nature for production.
- D. Wood being cut in the tropical forest is land because it is used for production.

2003/CE/II/14

Which of the following are land in economics?

- (1) the Chinese white dolphins living in the waters around Lantau Island
- (2) the giant pandas living in Ocean Park Hong Kong
- (3) migratory birds found in the Deep Bay (深灣)

- A. (1) and (2) only
B. (1) and (3) only
C. (2) and (3) only
D. (1), (2) and (3)

2009/CE/II/15

Which of the following belongs to the factor of production 'land'?

- A. endangered species of Tibetan antelope (藏羚羊) found on the Tibetan Plateau (青藏高原)
B. flowers planted in Hong Kong Disneyland
C. crocodiles living in Hong Kong Wetland Park
D. oxygen provided in the trains running across the Tibetan Plateau

1994/CE/II/16

Capital differs from land in that, for example,

- A. capital is produced from scarce resources but land is not.
B. capital has a smaller supply elasticity.
C. the demand for capital is a derived demand but that of land is not.
D. capital generates a higher return to its owners.

1995/CE/II/18

The payment for the use of some well-known franchised names such as 'McDonald's' and '7-Eleven' can be regarded as

- A. interest.
B. rent.
C. profit.
D. wage.

1998/CE/II/16

Knowledge

- A. is not capital because it does not have a physical form.
B. is not capital because its ownership is not transferable.
C. is capital because it is desired by everybody.
D. is capital because it can increase wealth in the future.

2000/CE/II/13

Which of the following is classified as capital?

- A. The singing skill of a superstar
B. The sunlight people enjoy on the beach
C. A strong current in the ocean
D. An oasis in the desert

2001/CE/II/09

Which of the following statements about land and capital is correct?

- A. Land has no occupational mobility but capital does.
B. There is no cost of producing land but there is cost of producing capital.
C. Land is a free good but capital is an economic good.
D. Over time, the quantity of land is fixed but that of capital is not.

2001/CE/II/11

Which of the following is classified as 'capital'?

- A. sunshine in California
B. oil wells in Kuwait
C. sand in the Sahara Desert
D. fresh air in the Alps

2002/CE/II/15

In economics, which of the following statements about capital is correct?

- A. The quantity of fixed capital cannot be changed in the short run.
B. Capital earns the highest rate of return among all factors of production.
C. Capital is produced to satisfy consumers' wants directly.
D. The geographical mobility of capital is greater than that of land.

2007/CE/II/17

Land is different from capital in that

- A. the supply of land cannot be controlled, whereas that of capital can be.
B. land is a free good but capital is an economic good.
C. land has a lower occupational mobility than capital.
D. land has a greater supply elasticity than capital.

2007/CE/II/18

In Economics, a taxi is classified as _____ and the income of the taxi owner from renting the taxi to a driver is classified as _____.

- A. land rent
B. capital interest
C. land interest
D. capital profit

2010/CE/II/17

Which of the following about 'land' and 'capital' is correct?

- A. Both land and capital can be increased by human effort.
B. Both land and capital are fixed factors of production.
C. Land is more elastic in supply than capital.
D. Land is less geographically mobile than capital.

2016/DSE/1/6

A school is a production unit which provides educational services. The following are people and objects that are usually found at a school:

- (1) the school building
- (2) teachers
- (3) students
- (4) private cars owned by teachers
- (5) sanitisers (洗手液) in the toilets

Which of the above items are capital of the school?

- A. (1) and (4) only
- B. (1) and (5) only
- C. (2) and (3) only
- D. (1), (4) and (5) only

1990/CE/11/28

Which of the following factors of production would have its return determined only after the products are sold?

- A. land
- B. labour
- C. capital
- D. entrepreneurship

1991/CE/11/07

Which factor return has all of the following characteristics?

- I It can be negative
- II It can be very large
- III It is not known before sale of finished products

- A. rent
- B. wages
- C. interest
- D. profits

1992/CE/11/08

The main function of entrepreneurship is

- A. to design new products
- B. to bear risks
- C. to provide technical expertise
- D. to make routine business decisions

1995/CE/11/19

Which of the following about the return for entrepreneurship is true?

- A. It can be determined before the commodity is sold.
- B. It can be positive or negative.
- C. It does not vary with the business performance of the firm.
- D. It is higher than the return for labour.

1997/CE/11/57

Mrs. Lee is a hawk. She sells fresh flowers in Mong Kok. Which of the following is INCORRECT?

- A. She is a secondary producer.
- B. She is a tertiary producer.
- C. She provides entrepreneurial skills.
- D. She provides labour service.

2001/CE/11/12

Dennis opened a convenience store and he has employed his friend, John, as a storekeeper. Dennis' work is classified as _____ and John's work is classified as _____.

- A. secondary production labour
- B. tertiary production entrepreneurship
- C. labour secondary production
- D. entrepreneurship tertiary production

2004/CE/11/14

Michael Owen is a famous football player for Liverpool Football Club. In economics, he provides the service of _____ and he engages in _____ production.

- A. entrepreneurship secondary
- B. entrepreneurship tertiary
- C. labour secondary
- D. labour tertiary

2006/CE/11/13

Mr Chan is the owner of a printing factory and he employs Mary as an accountant. The factory engages in _____ production and Mary provides the service of the factor _____.

- A. secondary labour
- B. secondary entrepreneurship
- C. tertiary labour
- D. tertiary entrepreneurship

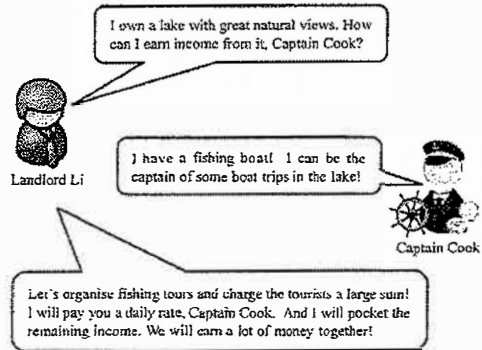
2019/DSE/1/08

Which of the following are capital of a cafe?

- (1) coffee machines
- (2) coffee beans
- (3) video game consoles brought by its customers for party
- (4) comic books which can be borrowed by its customers free of charge

- A. (1) and (2) only
- B. (1), (2) and (4) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

Refer to the following dialogue.



Given the return of land is rent, the return of labour is wage, the return of capital is interest while the return of entrepreneur is profit. The income earned by Captain Cook consists of _____ while the remaining income earned by Landford Li consists of _____.

- A. wage profit
- B. interest rent and profit
- C. wage and interest rent
- D. wage and interest rent and profit

Short & Structured Questions

1991/CE/1/4(a)(i)

Mr. Chan was a lorry driver of a construction company. Last year, he left the company and began to work on his own with his lorry, taking orders directly from customers.

Explain whether Mr. Chan runs a firm.

(3 marks)

1995/CE/1/11(b)

Mr. Ip owns a property agency (物業代理行) and hires Mary as a clerk of his firm. Distinguish between the economic roles played by Mr. Ip and Mary. Explain your answer.

(4 marks)

1996/CE/1/4(b)

A traffic light, which was worth \$1 500, was knocked down in a traffic accident. The driver was fined \$3 000 and the government used \$2 000 to install another traffic light.

Explain why the traffic light is a kind of capital.

(2 marks)

1997/CE/1/1

Peter owns a plot of land for farming in the New Territories. He hires workers to work together with him on his farm. To what TYPES of factor of production does Peter belong? Explain your answer.

(4 marks)

2000/CE/1/3

Explain why an incinerator (焚化爐) is a capital.

(2 marks)

2004/CE/1/9(e)

Explain which type of factors of production the cars displayed in the showrooms belong to.

(2 marks)

2005/CE/1/2

Ka Ming is the owner of an air-conditioner repair company. He also repairs air-conditioners for his customers. To what types of factors of production does Ka Ming belong? Explain.

(4 marks)

2014/DSE/II/2(a)

Ah Wing runs a store selling mobile phone accessories in Mong Kok. To what factor of production does Ah Wing belong? Explain your answer.

(2 marks)

2016/DSE/II/10(b)

Solar energy becomes an increasingly important energy source in the sunny western provinces, like Gansu and Xinjiang, in China.

Solar panels are installed atop the roofs of many residential buildings to generate solar energy in those western provinces. Explain to which type of factors of production the sunshine belongs in the production of solar energy.

(2 marks)

2018/DSE/II/2(b)

Last year, Peter operated a sole proprietorship. Recently he invited Paul and Mary to form a partnership to expand the business to other markets.

Mary has invested in the firm but would not take part in its management. To what type of factor of production does Mary belong? Explain your answer.

(2 marks)

MARKING SCHEME

1990/CE/II/13 D	1999/CE/II/11 A	1994/CE/II/16 A	2007/CE/II/17 A (69%)	1995/CE/II/19 B
1991/CE/II/10 B	2000/CE/II/14 B	1995/CE/II/18 A (deleted)	2007/CE/II/18 B (28%)	1997/CE/II/57 A
1992/CE/II/07 D	2003/CE/II/16 B (20%)	1998/CE/II/16 D	2010/CE/II/17 D (82%)	2001/CE/II/12 D
1993/CE/II/08 B	2005/CE/II/15 C (80%)	2000/CE/II/13 A	2016/DSE/II/06 B (84%)	2004/CE/II/14 D (84%)
1996/CE/II/15 D	2007/CE/II/16 C (41%)	2001/CE/II/09 B	1990/CE/II/28 D	2006/CE/II/13 A (79%)
1997/CE/II/13 B	2008/CE/II/14 B (84%)	2001/CE/II/11 B	1991/CE/II/07 D	2019/DSE/II/08 B
1998/CE/II/12 D	2009/CE/II/15 A (83%)	2002/CE/II/15 D (50%)	1992/CE/II/08 B	2020/DSE/II/6 D

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/II/4(a)(i) Yes, because he makes decisions and bears risks in a firm.	(1) (2)
1995/CE/II/11(b) The distinctive economic role is that Mr Ip belongs to entrepreneurship, because he has to bear the risk of the business / formulate policies. Mary does not belong to entrepreneurship / she belongs to labour, because she does not have to bear risk / she provides human effort in production.	(1) (1) (1) (1)
1996/CE/II/4(b) A traffic light is a man-made resource used for production.	(2)
1997/CE/II/1 Entrepreneurship, because he bears risk / makes decisions. Labour, because he provides human effort in production.	(1) (1) (1) (1)
2000/CE/II/5 It is man-made and it is used for production.	(2)
2004/CE/II/9(e) Capital, because those cars are man made resources (used for production).	(1) (1)

2005/CE/II/2 Entrepreneurship, because he bears risks / makes decisions. Labour, because he provides human effort in production.	(1) (1) (1) (1)
2014/DSE/II/2(a) Entrepreneurship, because he bears business risk and makes business decisions.	(1) (1)
2016/DSE/II/10(b) Land, because it is a natural resource which is a gift of nature.	(1) (1)
2018/DSE/II/2(b) Entrepreneurship, because she bears business risk.	(1) (1)

2.4 LABOUR SUPPLY AND PRODUCTIVITY

Multiple Choice Questions

1990/CE/II/20

Which of the following will increase the supply of labour?

- (1) The legal minimum working age is raised.
 - (2) The government introduces an unemployment benefit scheme.
 - (3) Workers are willing to work for longer hours at the same wage rate.
 - (4) The retirement age is raised.
- A. (1) and (2) only
B. (1) and (4) only
C. (2) and (3) only
D. (3) and (4) only

1991/CE/II/09

Which of the following will improve the average productivity of labour?

- A. a larger population
- B. longer working-hours
- C. more opportunities for tertiary education
- D. the emigration of skilled workers

1991/CE/II/56

The supply of labour does NOT depend on

- A. the size of the population.
- B. the composition of the population.
- C. the legal minimum working age.
- D. the productivity of workers.

1992/CE/II/10

Which of the following can increase the productivity of factory workers?

- (1) abandoning the piece-rate system
 - (2) installing more machinery
 - (3) importing labour from Mainland China
 - (4) providing a better working environment
- A. (1) and (2) only
B. (1) and (3) only
C. (2) and (4) only
D. (3) and (4) only

1992/CE/II/14

The Hong Kong government is expanding the tertiary education. This means that

- A. the provision of tertiary education no longer involves opportunity cost.
- B. the provision of tertiary education is not subject to diminishing returns.
- C. resources allocation will definitely be more efficient.
- D. the future labour productivity will increase.

1993/CE/II/06

Which of the following will improve the average productivity of labour in an economy?

- (1) extending compulsory education to a higher level
 - (2) raising the retirement age
 - (3) increasing the quantity of capital goods
 - (4) raising unemployment benefits
- A. (1) and (3) only
B. (1) and (4) only
C. (2) and (3) only
D. (2) and (4) only

1993/CE/II/19

The following table shows the output of dresses from a factory in 1991 and 1992.

Year	1991	1992
Number of workers employed	20	25
Units of dresses produced	90 000	80 000
Number of working hours per worker	3 000	2 000

The factory employed a _____ quantity of labour in 1992 and the average labour productivity was _____ in that year.

- A. larger higher
- B. larger lower
- C. smaller higher
- D. smaller lower

1994/CE/II/17

Which of the following factors would tend to increase the labour supply in Hong Kong?

- (1) The government re-employs some retired civil servants.
 - (2) There are more public holidays each year.
 - (3) There is greater proportion of males in the population.
 - (4) The educational level of workers becomes higher.
- A. (1) and (3) only
B. (1) and (4) only
C. (2) and (3) only
D. (2) and (4) only

1995/CE/II/16

Which of the following will increase the average productivity of labour?

- (1) a larger labour force
 - (2) better education and training of workers
 - (3) better organization of production
 - (4) fewer public holidays
- A. (1) and (2) only
B. (1) and (4) only
C. (2) and (3) only
D. (3) and (4) only

1995/CE/II/59

Real GDP value-added per employee		
Year	1982	1992
Manufacturing sector	\$41 000	\$165 000
Services sector	\$103 000	\$280 000

Which of the following statements is NOT a conclusion drawn from the above table?

- A. The manufacturing sector had a higher labour productivity in 1992 than in 1982.
- B. The services sector had a higher labour productivity in 1992 than in 1982.
- C. The services had a higher labour productivity than the manufacturing sector in 1992.
- D. The services sector had a higher labour productivity growth rate than the manufacturing sector.

1996/CE/II/12

Which of the following will decrease the labour supply of a country?

- A. fewer job vacancies
- B. more universities place for students
- C. an increase in the retirement age of workers
- D. an increase in the number of immigrants

Refer to the table below for Question 13 and 14:

	Firm A	Firm B
Number of workers employed	200	120
Number of working hours per worker	1 000	1 900
Units of output produced	100 000	110 000

1996/CE/II/13

Which of the following comparisons is correct?

- A. Workers in Firm B has higher productivity.
- B. Firm B employed more labour services.
- C. Firm B enjoys a greater economies of scale.
- D. Production in Firm B is more capital-intensive.

1996/CE/II/14

Which of the following is a possible reason for the difference in labour productivity of a Firm A and Firm B?

- A. better training of workers in Firm A
- B. better working environment in Firm B
- C. a larger labour force in Firm A
- D. a higher wage rate in Firm B

1997/CE/II/55

An increase in the number of Form 7 graduates studying in the universities will result in

- (1) a decrease in the present labour supply.
- (2) a decrease in the present unemployment rate.
- (3) an increase in future average labour productivity.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1998/CE/II/14

The average productivity of labour will increase if

- (1) there is an increase in the number of machines.
- (2) there is an increase in the size of the labour force.
- (3) there is an improvement in the health conditions of workers
- (4) workers work more hours per day

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1998/CE/II/15

Which of the following would increase the labour supply of Hong Kong?

- A. The demand for imported workers increase
- B. All women are not allowed to work overtime.
- C. More employers provide child care services to their employees.
- D. More job vacancies are available.

1999/CE/II/14

Which of the following would increase the labour supply of Hong Kong?

- A. The provision of more day-time child-care services
- B. A change in the payment system from piece rate to time rate
- C. An increase in the number of public holidays in a year
- D. A decrease in the number of people migrating to other countries.

1999/CE/II/20

Refer to the following table:

	Firm A	Firm B
Number of workers employed	100	60
Number of working hours per worker	350	650
Output (Units)	140 000	156 000

Which of the following concerning Firm A and Firm B is correct?

- A. Firm B has a higher average labour productivity than Firm A.
- B. Firm A has a higher average labour productivity than Firm B.
- C. Firm A has large labour supply than Firm B.
- D. Firm B has a large labour supply than Firm A.

2001/CE/II/13

Under which of the following situations would the labour supply in Hong Kong decrease?

- A. All universities in Hong Kong admit fewer full time students.
- B. More Hong Kong companies provide training courses to their staff during office hours.
- C. Fewer Hong Kong people are allowed to emigrate to the US.
- D. The Hong Kong government provides subsidies to private firms for installing high-tech equipment.

2001/CE/11/15

Refer to the following table:

	Firm A	Firm B
Number of workers employed	60	40
Total number of working hours	1 200	1 000
Total output (Units)	10 800	9 500

Which of the following is a possible reason for the difference in the labour productivity of Firm A and Firm B?

- A. Firm B has a better working environment.
- B. Firm A has a higher degree of division of labour.
- C. Firm A enjoys greater economies of scale.
- D. Firm B uses a more labour intensive method of production.

2002/CE/11/14

A higher average labour productivity means a higher

- A. average output per worker.
- B. marginal product per man.
- C. total output per worker.
- D. total product per unit of labour.

2005/CE/11/16

Study the following table:

Economy	A	B	C	D
Number of workers	20	5	30	15
Weekly working hours per worker	5	25	5	20
Total output	11 000	12 000	9 000	10 000

Which economy has the largest labour supply?

- A. A
- B. B
- C. C
- D. D

2005/CE/11/17

Which of the following situations will increase the average labour productivity?

- A. employing more workers
- B. extending the working hours
- C. changing from time rates to piece rates
- D. reducing the degree of division of labour

2006/CE/11/14

Which of the following would raise the average labour productivity?

- A. a larger working population
- B. fewer public holidays
- C. a larger quantity of advanced equipment
- D. a lower degree of occupational mobility of labour

2007/CE/11/15

	Country A	Country B
Number of workers	100	X
Average working hours of workers per day	8	Y
Total output (unit)	7 200	7 200

In the above table, if the labour productivity in Country B is higher, the possible value of X and Y would be _____ and _____ respectively.

- A. 140 6
- B. 150 5
- C. 200 4
- D. 300 3

2009/CE/11/16

If the government raises the legal retirement age,

- A. the occupational mobility of workers will increase.
- B. the average labour productivity will increase.
- C. the supply of labour will increase.
- D. more division of labour will be practised.

2010/CE/11/18

Which of the following will increase the average labour productivity?

- (1) The number of promotion posts increases.
- (2) The number of retired workers increases.
- (3) Production becomes more capital-intensive.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2010/CE/11/20

Which of the following would decrease the labour supply of Hong Kong?

- A. better and more job opportunities in mainland China
- B. the imposition of a minimum wage law for low-skilled workers in Hong Kong
- C. a lower average salaries tax rate in Hong Kong
- D. an increase in the retirement age in Hong Kong

2012/DSE/1/06

Which of the following policies will result in an increase in the labour force of Hong Kong?

- A. extension of free education from 9 years to 12 years
- B. an increase in the minimum capital requirement of the Capital Investment Entrant Scheme (資本投資者入境計劃)
- C. an increase in the immigration scheme quota for talented persons from the mainland
- D. introduction of maximum working hours

2012/DSE/1/10

Refer to the table below.

	Factory A	Factory B
Number of workers employed	60	10
Total number of working hours	2 000	5 000
Total output (units)	12 000	20 000

Which of the following is a possible reason for the difference between the labour productivity of Factory A and Factory B?

- A. Factory B provides more training for its workers.
- B. More machines are used in Factory B.
- C. The working environment in Factory A is poorer.
- D. Factory A pays its workers at piece rate while Factory B pays at time rate.

2014/DSE/1/09

Which of the following will increase the labour supply of an economy?

- A. More firms allow male employees to take paternity leave.
- B. More companies offer free transport to employees working overtime.
- C. Universities provide more full-time associate degree programmes for secondary school graduates.
- D. The government adopts maximum working hours for the civil servants.

2015/DSE/1/06

Refer to the following table:

	Factory A	Factory B
Number of full-time workers	25	0
Number of part-time workers	0	50
Average working hours of full-time workers	8	0
Average working hours of part-time workers	0	6
Total output (units)	12 000	15 000

- A. Factory A uses time rate while Factory B uses piece rate to pay its workers.
- B. Factory A provides more training for its workers.
- C. The part-time workers employed by Factory B are more skilled.
- D. Factory B uses more capital goods.

2016/DSE/1/08

The labour supply of a country will increase if

- A. more training is provided for the existing labour force.
- B. the legal minimum working age is lowered from 16 to 15.
- C. foreign direct investment increases.
- D. the government increases the salaries tax rate.

In the 2018-19 Budget, the Hong Kong Government raised the subsidy ceiling of the Continuing Education Fund from \$10 000 to \$20 000 per applicant to encourage members of the public to pursue further education.

This policy will lead to a rise in _____ and _____ in the future.

- A. labour supply geographical mobility
- B. labour supply occupational mobility
- C. labour productivity geographical mobility
- D. labour productivity occupational mobility

2017/DSE/1/11

The input-output relationship of a firm is as follows.

	Year 1	Year 2
Number of workers	30	35
Number of working hours per worker per day	10	8
Quantity of output (units)	3 000	2 900

Based on the above information, labour supply _____ and average labour productivity _____.

- A. rises rises
- B. rises falls
- C. falls rises
- D. falls falls

2018/DSE/1/09

The labour supply in Hong Kong would increase if

- A. more Hong Kong people migrated to foreign countries.
- B. more Hong Kong students studied in tertiary institutions.
- C. the Government lowered the qualification requirements for the Quality Migrant Admission Scheme.
- D. all working fathers were allowed to take two extra days of paternity leave.

Short & Structured Questions

1990/CE/1/2(b)

The data below refer to Hong Kong's financial sector in 1985 and 1986:

	1985	1986
Value-added (in thousand dollars) at constant (1985) market prices	39 589 000	47 052 000
Employment (in thousands)	177	190

- (i) Use the above data to show how the average labour productivity in the financial sector changed from 1985 to 1986. (4 marks)
- (ii) Suggested TWO reasons for the change in (b)(i). (4 marks)

1994/CE/1/2

What is meant by the average labour productivity? Suggest TWO methods of raising labour productivity. (6 marks)

2000/CE/1/11(c)

Suppose Country B has a higher average labour productivity than Country A. Define average labour productivity and give THREE reasons for the higher average labour productivity of Country B. (5 marks)

2002/CE/1/5

	Firm A	Firm B
Number of workers employed	100	120
Number of working hours per worker	500	800
Output (units)	100 000	144 000

Calculate the average labour productivity of each firm and state TWO reasons why the two productivities are different. (4 marks)

2005/CE/1/10(a)(ii)

The two countries have a different output of watches, with each country using the same amount of resources in their production. State THREE possible reasons for such a difference. (3 marks)

2007/CE/1/2

Study the following information on a factory.

Year	2006	2007
Number of workers employed	40	50
Number of working hours per worker	300	200
Units of output produced	36 000	40 000

- (a) Calculate the labour productivity of the factory in 2006 and 2007, respectively. (2 marks)
- (b) Give TWO possible reasons to explain why the labour productivity has changed. (2 marks)

2010/CE/1/2

Refer to the following data of Firm A and Firm B. Both firms are engaged in the same industry.

	Firm A	Firm B
Number of workers employed	20	12
Number of working hours per worker	100	200
Number of output (units)	100 000	200 000

- (a) Explain whether Firm A has a larger labour supply than Firm B. (3 marks)
- (b) Explain whether Firm B has a higher average labour productivity than Firm A. (3 marks)

MARKING SCHEME

1990/CE/1/20 D	1994/CE/1/17 A	1998/CE/1/14 B	2005/CE/1/16 D (51%)	2012/DSE/1/06 C (86%)
1991/CE/1/09 C	1995/CE/1/16 C	1998/CE/1/15 C	2005/CE/1/17 C (84%)	2012/DSE/1/10 D (58%)
1991/CE/1/56 D	1995/CE/1/59 D	1999/CE/1/14 A	2006/CE/1/14 C (72%)	2014/DSE/1/09 B (79%)
1992/CE/1/10 C	1996/CE/1/12 B	1999/CE/1/20 D	2007/CE/1/15 B (67%)	2015/DSE/1/06 B (73%)
1992/CE/1/14 D	1996/CE/1/13 B	2001/CE/1/13 B	2009/CE/1/16 C (81%)	2016/DSE/1/08 B (86%)
1993/CE/1/06 A	1996/CE/1/14 A	2001/CE/1/15 A	2010/CE/1/18 B (68%)	2017/DSE/1/11 C (75%)
1993/CE/1/19 C	1997/CE/1/55 B	2002/CE/1/14 D (25%)	2010/CE/1/20 A (84%)	2018/DSE/1/09 C (94%)
2019/DSE/1/06 D	<i>Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.</i>			
1990/CE/1/2(b)				
(i) Average labour productivity in 1985: $\$39\ 589\ \text{mn} \div 177\ 000 = \$223\ 666.7$ Average labour productivity in 1986: $\$47\ 052\ \text{mn} \div 190\ 000 = \$247\ 642.1$				(3)
\therefore Higher labour productivity in 1986				(1)
(ii) - better training and knowledge - more investment in technology and machines - better management, e.g. division of labour (Mark the FIRST TWO points only.)				(2@ max :4)
1994/CE/1/2				
Average labour productivity is output per unit of labour, e.g. output per man-hour.				
<u>Methods to raise labour productivity:</u> - division of labour - increasing quantity / quality of capital goods - more training of workers - incentive schemes, e.g. a change from time rate to piece rate (Mark the FIRST TWO points only.)				(2@, max: 2)
2000/CE/1/1(c)				
Output per unit of labour or output per man-hour - better education / training - better capital - better technology - better management, e.g. division of labour - better working conditions (Mark the FIRST THREE points only.)				(1@, max:3)

2002/CE/1/5 Firm A: $100\ 000 \div (100 \times 500) = 2$ units of output per man-hour Firm B: $144\ 000 \div (120 \times 800) = 1.5$ units of output per man-hour	(1) (1)
- different education / training - different capital - different technology - different management - different working conditions (Mark the FIRST TWO points only.)	(1@, max : 2)
2005/CE/1/10(a)(ii) - different quality of factor input - different education and training - different degree of technological advancement - different management efficiency / different degree of division of labour, - different working environment - different labour welfare and incentives (Mark the FIRST THREE points only.)	(1@, max: 3)
2007/CE/1/2 (a) In year 2006: $[36\ 000 / (40 \times 300)] = 3$ units / man-hour In year 2007: $[40\ 000 / (50 \times 200)] = 4$ units / man-hour	(1) (1)
(b) - better capital / mechanization - better training / education - better working condition - better management, e.g. the practice of division of labour - higher incentives, e.g. change from time rate to piece rate - improvement in technology (Mark the FIRST TWO points only.)	(1@, max: 2)
2010/CE/1/2 (a) No, because the labour supply of Firm A = $(20 \times 100) = 2\ 000$ man hours is smaller than that of Firm B = $(12 \times 200) = 2\ 400$ man hours.	(1) (1) (1)
(b) No, because the labour productivity of Firm B = $(120\ 000 / 2\ 400) = 50$ units of output per man hour is the same as that of Firm A = $(160\ 000 / 3\ 200) = 50$ units of output per man hour.	(1) (1) (1)

2.5 DIVISION OF LABOUR

Multiple Choice Questions

1992/CE/II/11

The Ha family and the Wong family are living next door to each other and their children go to the same kindergarten. The children are taken to school by Mr Ha and brought home by Mrs Wong. This is an example of

- A. division of labour.
- B. diseconomies of scale.
- C. diminishing returns.
- D. absolute advantage.

1993/CE/II/15

Specialization is beneficial to an economy because

- A. more resources are used in producing capital goods.
- B. the threat of protectionism can be avoided.
- C. the risk of unemployment is lowered.
- D. the productivity of the factors of production is raised.

1994/CE/II/59

Which of the following is NOT an advantage of division of labour?

- A. higher work incentive
- B. higher labour productivity
- C. a smaller amount of tools required
- D. the right person doing the right job

1997/CE/IV/48

The production of good X involves two different tasks. When Mary focuses on one task and Peter on another, their total daily output is greater than that when each of them has to do both tasks. This can be explained by

- (1) economies of scale.
- (2) the principle of comparative advantage.
- (3) the advantages of division of labour.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1999/CE/IV/52

Which of the following is NOT an advantage of division of labour?

- A. greater economies of scale
- B. economy in the use of capital
- C. higher labour productivity
- D. improved skill through more practice

2000/CE/II/19

When division of labour is practised,

- A. workers have greater job satisfaction.
- B. machines are used more intensively.
- C. producers produce a greater variety of goods to suit different consumer tastes.
- D. the occupational mobility of workers increases.

2001/CE/II/16

Which of the following is an advantage of division of labour?

- A. A wider choice of goods and services can be provided.
- B. Workers have a greater incentive to work.
- C. Workers have higher occupational mobility.
- D. Less time is required to train workers.

2003/CE/II/17

In a secondary school, different teachers are responsible for teaching different subjects. Which of the following are reasons for the above arrangement?

- (1) It can reduce the cost of training.
- (2) Practice makes perfect.
- (3) Different teachers are good at teaching different subjects.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2004/CE/II/17

When division of labour is practised,

- A. firms will enjoy greater economies of scale.
- B. workers will have a higher occupational mobility.
- C. workers will have a higher income.
- D. output per man-hour will increase.

2007/CE/II/14

Division of labour can raise labour productivity. One reason is that

- A. fewer tools are needed.
- B. geographical mobility is increased.
- C. time is saved from not moving from task to task.
- D. there would be a higher degree of interdependence among different production stages.

2009/CE/II/17

Which of the following is a possible reason for the increase in average labour productivity resulting from practising division of labour?

- A. Fewer capital goods are required.
- B. The occupational mobility of workers is higher.
- C. The total wage income of workers is higher.
- D. Time is saved from moving workers between different tasks.

2010/CE/11/16

A large supermarket chain store is composed of different sections: marketing, sales, delivery, accounts and management. An advantage of the above arrangement is:

- A. The staff will have a higher working incentive.
- B. A greater variety of services can be provided to customers.
- C. The supermarket chain store can enjoy economies of scale.
- D. The supermarket chain store can save on the cost of training its staff.

2018/DSE/11/11

A professor has decided to change the way of marking the exam papers of his subject. Instead of asking his teaching assistants to mark the whole paper for their own classes, he assigns each teaching assistant to mark one question of the paper for the entire candidature. Which of the following situations would likely occur?

- (1) The marking will be more accurate since practice makes perfect.
- (2) Training time will be reduced as each assistant only needs to know part of the marking schemes.
- (3) The tools required for marking will be reduced such as fewer red pens are needed.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2020/DSE/11/3

Which of the following may exist in a barter economy?

- (1) specialisation
 - (2) inflation
 - (3) interest
- A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

Short & Structured Questions

1995/CE/11/2

In the production of television news reports broadcasted every day, different people perform different duties. For example, there are reporters, editors, cameramen, etc.

What economic principle is illustrated by this? Give **TWO** reasons to explain why the application of this principle can increase the labour productivity in this production. (5 marks)

1997/CE/11/10(c)

Define average labour productivity and give **TWO** reasons why specialization can raise the average labour productivity of a country. (6 marks)

2001/CE/11/1

Given **THREE** reasons why division of labour can increase labour productivity. (3 marks)

2003/CE/11/10(a)

In the production of textbooks, different people perform different duties. For example, there are editors, typists, proofreaders etc.

What economic principle is illustrated by this practice? Suggest **THREE** reasons why the application of this principle can increase labour productivity. (4 marks)

2013/DSE/11/10(a)

There are cooks, waiters, managers and receptionists working in restaurants.

What economic principle is illustrated by the above phenomenon? List **THREE** reasons why the principle can increase labour productivity. (4 marks)

2016/DSE/11/13(a)

The airport corporation of Country H is a public corporation which hires different people to operate the airport. For example, there are security guards, technicians, engineers and financial managers.

What economic principle is illustrated by this practice? Suggest **THREE** reasons why the application of this principle can increase labour productivity. (4 marks)

2018/DSE/11/13(b)

In view of the population projection in Hong Kong, politicians suggest the following measures:

- (i) providing subsidy for firms to improve production technology
- (ii) importing more workers

Analyse how each of the above two measures affects average labour productivity. (5 marks)

Wong's family and Chan's family live next door to each other. State ONE economic concept involved in each of following arrangements and explain why the arrangement is beneficial to both families.

- (a) Mr Wong teaches the children from both families English while Mrs Chan teaches them Japanese. (3 marks)
- (b) On Christmas Eve, the two families buy food ingredients and cook together instead of buying and cooking separately. (3 marks)

Microeconomics by Topic
2. Production

MARKING SCHEME

1992/CE/II/11 A	1997/CE/II/48 C	2001/CE/II/16 D	2007/CE/II/14 C (92%)	2018/DSE/II/11 A (85%)
1993/CE/II/15 D	1999/CE/II/52 A	2003/CE/II/17 D (71%)	2009/CE/II/17 D (94%)	2020/DSE/II/3 D
1994/CE/II/59 A	2000/CE/II/19 B	2004/CE/II/17 D (69%)	2010/CE/II/16 D (55%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1995/CE/II/2

Division of labour / specialization

- jobs assigned according to talents and skills
 - more skillful at jobs due to continuous practice
 - time saved from moving from one job to another job
 - time saved from learning all the jobs
 - encouraged the use of capital / more advanced capital
- (Mark the FIRST TWO points only)

(1)

(2@, max: 4)

1997/CE/II/10(c)

Average labour productivity is output per unit of labour input, e.g. output per man-hour.

- getting talented or skillful people to do the job
 - continuous practice makes workers even more skillful
 - saves time because not need to shift from one task to another task
- (Mark the FIRST TWO points only)

(2@, max: 4)

2001/CE/II/1

- stimulus to mechanization
 - practice makes perfect
 - saves time in learning the job
 - saves time in moving around jobs
 - choose the best person to do the job
- (Mark the FIRST THREE points only)

(1@, max: 3)

2003/CE/II/10(a)

Division of labour

- choosing the most suitable persons for the job
 - practice makes perfect / learning by doing
 - saving time from training
 - saving time from moving around tasks
 - stimulus to mechanization
- (Mark the FIRST THREE points only)

(1)

(1@, max: 3)

2013/DSE/II/10(a)

Division of labour

- choosing the most suitable person for the job
 - practice makes perfect
 - saving time in training
 - stimulus to mechanization
- [Mark the FIRST THREE points only.]

(1)

(1@, max: 3)

2016/DSE/11/13(a)
Division of labour / specialization (1)
Reasons:
- practice makes perfect
- choosing the most suitable person for the job
- save time in training
- stimulus to mechanization (1@; max: 3)
[Mark the FIRST THREE points only.]

2018/DSE/11/13(b)
(i) Labour productivity would rise as improved technology or higher quality of capital goods would result in an increase in output per unit labour. (2)
(ii) Uncertain. Labour productivity would increase if the imported workers are more productive on average than the existing local ones. (3)

2019/DSE/11/5
(a) Division of labour/ (Principle of) comparative advantage (1)
[Mark the FIRST point only.]

Benefits: (2)
- Finding the most suitable person for the job: the parents in both families can use their expertises in teaching their children so the children can learn both languages better.
- Specialisation and exchange: Mr Wong can specialise teaching English, i.e. the production in which his opportunity cost is lower, then exchange for his children learning Japanese from Mrs. Chan. The children can learn both languages better with a lower cost. (Similar argument applies to Mrs Chan in her teaching of Japanese as well.)
- any other relevant point

(b) Economies of scale. (1)
[Mark the FIRST point only.]

Benefits: (2)
- They can have more discounts when food ingredients are purchased in bulk which would reduce the average cost of producing the dinners.
- Cooking together can save the average cooking time and at the same time can have a larger variety of food choices.
- any other relevant point

2.6 LABOUR MOBILITY

Multiple Choice Questions

1990/CE/11/09
The ban on the ivory trade in general harms the _____ craftsmen most because of their relatively _____ mobility

- A. younger low occupational
- B. younger high geographical
- C. older low occupational
- D. older high geographical

1991/CE/11/06
Suppose the government provides housing subsidies to teachers serving in the same school for over 10 years. Such a measure will tend to _____ the occupational mobility and _____ the geographical mobility of these teachers.

- A. increase increase
- B. decrease decrease
- C. increase decrease
- D. decrease increase

1992/CE/11/09
Which of the following can increase the occupational mobility of labour?

- A. the development of industries requiring high technology
- B. the setting up of more professional associations
- C. the expansion of vocational training courses
- D. the extension of the Mass Transit Railway network

1993/CE/11/14
Lawyers generally have a low occupational mobility because

- A. they enjoy social status.
- B. they are not skilful in other professions.
- C. they have high opportunity cost in changing jobs.
- D. they are members of the Hong Kong Law Society.

1995/CE/11/21
Which of the following will raise the occupational mobility of labour?

- (1) a higher degree of specialization of skills
- (2) more information about job vacancies
- (3) greater power of labour unions
- (4) provision of retraining programmes

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1997/CE/II/14

Which of the following has the least occupational mobility?

- A. lorry driver
- B. salesman
- C. actor
- D. dental surgeon

1999/CE/II/16

Which of the following types of people is more occupationally mobile?

- A. professors in economics in a university
- B. accountants
- C. salesmen
- D. company secretaries

2001/CE/IV/14

Suppose the government starts to recruit experienced Putunghua teachers from Mainland China. This would _____ the _____ mobility of experienced Putunghua teachers in Mainland China.

- A. reduce occupational
- B. reduce geographical
- C. increase occupational
- D. increase geographical

2004/CE/IV/15

In order to attract more Mainland professionals to work in Hong Kong, some firms plan to provide a housing allowance for them. This would _____ the _____ of these Mainland professionals.

- A. reduce occupational mobility
- B. increase occupational mobility
- C. reduce geographical mobility
- D. increase geographical mobility

2006/CE/II/15

When division of labour is practiced, workers will have a _____ occupational mobility because _____.

- A. higher the labour productivity is raised.
- B. higher the capital goods are used more fully
- C. lower work becomes dull and monotonous
- D. lower workers are only trained for a particular skill

2008/CE/II/15

In which of the following situations will the occupational mobility of labour increase?

- A. improvement in the transportation network
- B. tightened restrictions on obtaining a professional licence
- C. provision of more retraining programmes
- D. raising the legal retirement age

2012/DSE/II/05

The occupational mobility of labour in an economy will increase when

- A. the cross-border railway network is improved.
- B. licences are required for more types of job in the labour market.
- C. tax allowances are provided for continuing education.
- D. there is a greater degree of specialisation in production.

2014/DSE/II/11

Which of the following would most likely increase the occupational mobility of labour in an economy?

- A. The labour unions have stronger bargaining power for the welfare of their members.
- B. The labour department provides tuition fee rebates for participants of retraining programmes.
- C. The transport network is improved by the extension of highways.
- D. The government stops granting funding for an online data system about job vacancies.

2015/DSE/II/04

The _____ mobility of labour will decrease if _____.

- A. geographical the government introduces "city-bike rental scheme" in all train stations.
- B. geographical several big companies set up child care centres in their offices.
- C. occupational the travelling subsidy scheme provided by government is reduced due to a budget deficit
- D. occupational licences are required by the government for more professions

2016/DSE/II/09

Which of the following is the most mobile in terms of occupational mobility?

- A. a professional basketball player
- B. a licensed plumber (水喉匠)
- C. a graduate trainee in a law firm
- D. a clerk in an accounting firm

2017/DSE/II/07

Certain restaurants in China found that they can introduce robots to replace some workers in serving customers without reducing their output. This will

- A. increase the quantity supplied of restaurant workers.
- B. increase the labour productivity of those restaurants.
- C. decrease the geographical mobility of restaurant workers.
- D. decrease the occupational mobility of restaurant workers.

Short & Structured Questions

- 1991/CE/1/2(a)
(i) Define 'opportunity cost' and 'occupational mobility'. (4 marks)
- (ii) In terms of cost, explain why medical doctors in Hong Kong seldom change their occupation. (5 marks)
- 1993/CE/1/2/(b)(ii)
More and more workers in Hong Kong are shifting from the manufacturing sector to the tertiary sector. State **THREE** problems these workers may face in changing jobs. (6 marks)

- 2013/DSE/II/11(b)(i)
The government has launched the "Work Incentive Transport Subsidy Scheme", with the following objectives:
- (1) To relieve the burden of travelling expenses commuting to and from work on the part of low-income households with employed members
 - (2) To promote sustained employment

Applicants must meet the monthly income and asset limits of the household (e.g. for a single person, the monthly income cannot exceed \$7 300 and the assets cannot exceed \$72 000) and work no less than 72 hours per month in order to apply for a subsidy of \$600 per month.

Discuss the effects of the scheme on labour mobility. (3 marks)

- 2015/DSE/II/10(c)
Professional football players often retire in their mid-thirties. Although most of them have once been wellpaid as footballers, some of them can only find low-paid jobs after retirement. Explain the above phenomenon in term of labour mobility. (3 marks)

2017/DSE/II/12(a)
Before the British people voted against staying in the European Union (EU), i.e. Brexit, workers from the EU were free to work in Britain and vice versa. Brexit has shocked the economies in Europe and the following table shows some views on Brexit:

British politicians: Low-skilled EU workers should be required to apply for a visa to work in Britain.

Referring to the view of the *British politicians*, explain how labour mobility of the low-skilled workers from the EU would be affected. (3 marks)

MARKING SCHEME

1990/CE/1/09 C	1995/CE/1/21 C	2004/CE/1/15 D (74%)	2014/DSE/1/11 B (83%)
1991/CE/1/06 B	1997/CE/1/14 D	2006/CE/1/15 D (85%)	2015/DSE/1/04 D (89%)
1992/CE/1/09 C	1999/CE/1/16 C	2008/CE/1/15 C (79%)	2016/DSE/1/09 D (49%)
1993/CE/1/14 C	2001/CE/1/14 D	2012/DSE/1/05 C (70%)	2017/DSE/1/07 B (65%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

- 1991/CE/1/2(a)
(i) Opportunity cost is the highest-valued option or the best alternative that has to be forgone. (2)
Occupational mobility is the ease with which a factor moves from one occupation / trade / industry to another. (2)
- (ii) In changing occupation, the opportunity cost of a doctor (in terms of income forgone) can be very high. (2)
The value of taking up a new occupation (i.e. a doctor's earnings in another job) is usually lower than the cost of so doing (i.e. income, satisfaction and social status etc. from being a doctor). (3)

- 1993/CE/1/2/(b)(ii)
- retraining is required / lack of qualifications, experience and skills in the new jobs
- age problem
- loss in income earnings
- licensing requirements / entrance barriers
- lack of information about the job market
- adaptation to new working environment (2@, max: 6)
(Mark the **FIRST THREE** points only.)

- 2013/DSE/II/11(b)(i)
It increases the geographical mobility, because (2)
workers are more willing to travel to other districts for work. (1)

[Note: The lump-sum subsidy will not change the marginal cost of travelling. But some of the workers originally constrained by high travelling expenses may have the incentive to travel further for work (for a higher paid job).]

- 2015/DSE/II/10(c)
Professional football players have low occupational mobility, because (2)
their skills are very specific and not easily transferable to other jobs. (1)

- 2017/DSE/II/12(a)
The geographical mobility of low-skilled workers from the EU would be lowered because (2)
the visa requirement would increase the cost for those EU workers to go to work in the UK. (1)

2.7 WAGE PAYMENT METHODS

Multiple Choice Questions

1991/CE/II/08

Private tuition is usually paid for by time rates because

- A. the incentive to work is stronger.
- B. better examination results are guaranteed.
- C. the tuition fee is less.
- D. the output is difficult to measure.

1991/CE/II/22

The employment of part-time workers on Sundays enables Chinese restaurants

- A. to reduce their fixed costs
- B. to enjoy economies of scale
- C. to increase the labour productivity in a less costly way
- D. to meet the higher-than-normal demand in a less costly way

1994/CE/II/18

Instead of receiving only a fixed monthly salary, hotel waiters in Hong Kong generally earn a low basic monthly salary and receive tips from customers. To the hotel owners, which of the following is an advantage of the latter method of payment compared to the former method?

- A. It is easier to calculate the output of the waiters.
- B. Fewer waiters are needed.
- C. There is a better relationship among the waiters.
- D. The waiters provide better service.

1995/CE/II/17

Secondary school teachers in Hong Kong are in general paid by time rates because

- (1) the tasks of a teacher are not standardized
- (2) the output cannot be easily measured
- (3) there is a higher incentive to work

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1996/CE/II/16

An employer has changed the method of payment to his employees and observed the following results:

	Old System	New System
Output per worker (Per day)	200	300
Output with quality below standard	20	50

Most probably the old system is _____ and the new system is _____.

- A. time rate piece rate
- B. piece rate time rate
- C. a profit sharing scheme time rate
- D. piece rate a profit sharing scheme

1998/CE/II/17

Private piano teachers are usually paid at an hourly rate instead of a piece rate. Which of the following statements are true?

- (1) They tend to work longer hours.
- (2) They are not encouraged to rush through more music pieces in a lesson.
- (3) Their output is difficult to measure.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1999/CE/II/13

Mr Law is a full-time teacher in an aided secondary school in Hong Kong. He is a _____ producer and he is paid using a _____ method.

- A. secondary time rate
- B. secondary piece rate
- C. tertiary time rate
- D. tertiary piece rate

1999/CE/II/51

Assume that the payment system of some civil servants is changed from time rate to piece rate. This change will NOT result in

- A. an increase in their income.
- B. an improvement in the quality of their work.
- C. an increase in the monitoring and supervision cost of their work.
- D. an increase in the quantity of work completed by them.

2000/CE/II/15

Refer to the staff recruitment advertisements below:

ABC Company	XYZ Company
Mail Assistant	Mail Assistant
Requirements:	Requirements:
Age: 20 to 30	Age: 20 to 30
Male/female	Male/female
Salary: \$8 000 per month plus \$5 for each delivery of letter/parcel	Salary: \$12 000 monthly

- A. The cost of measuring wage payment is higher in the XYZ Company
- B. The working incentive of mail assistants is higher in the XYZ Company
- C. The income of a mail assistant is higher in the ABC company.
- D. The cost of supervision is lower in the ABC company.

2002/CE/II/16

Under the previous wage payment system, Mrs Chan found that her workers were lazy. Now, she has adopted another wage payment system under which the quantity as well as the quality of the output of her firm has been raised. This improvement could be due to the fact that the previous wage payment system was _____ and the present one is _____.

- A. piece rate time rate
- B. piece rate profit-sharing
- C. time rate piece rate
- D. time rate profit-sharing

2003/CE/II/18

A factory owner has changed the method of payment to his workers and observes a higher labour productivity of his workers, but a lower quality of output. Most probably the old payment system is _____ and the new payment system is _____.

- A. time rate piece rate
- B. piece rate time rate
- C. profit sharing scheme time rate
- D. piece rate profit sharing scheme

2006/CE/II/16

Suppose the wage payment system of the salesmen employed in ABC Company changes as follows:



It results in

- A. a lower cost of calculating the wage payments.
- B. a lower cost of monitoring the salesmen's performance.
- C. a lower income for the salesmen.
- D. a lower quality of services provided by the salesmen.

2009/CE/II/18

Whose employer would have the highest cost in monitoring the performance of his work?

- A. an office clerk who is paid with a fixed monthly salary
- B. a property agent who is paid through commission
- C. a tourist guide who is paid with tips
- D. a movie star who shares the profit with his film producer

2012/DSE/II/07

Some property agencies pay their employees a basic salary plus commission because

- (1) it can increase the working incentive of the employees.
- (2) it can transfer part of the business risk to the employees.
- (3) the cost of calculating wages is lower.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2013/DSE/II/07

Teachers in secondary schools are usually paid by time rate because

- A. this can improve their work incentive.
- B. they prefer a stable income.
- C. most teachers are hardworking.
- D. it is costly to measure their outputs.

2016/DSE/II/10

Which of the following is most likely to be paid on a piece-rate basis?

- A. a newspaper columnist
- B. a primary school teacher
- C. a fireman
- D. a bus driver

Short & Structured Questions

1990/CE/II/1(a)(iii)

Mrs Wong is a lawyer and is also good at doing housework, but she employs a Filipino maid to do her housework. Give **TWO** reasons why Filipino maids are paid by time rates instead of piece rates. (4 marks)

1992/CE/II/1(c)

Suppose a taxi owner employs a driver to provide a taxi service and shares the total revenue with the driver. Suggest and explain **ONE** advantage and **ONE** disadvantage of this payment method to the taxi owner. (6 marks)

1993/CE/II/1(d)

'Yummy Yummy' is a fast food shop. The manager of 'Yummy Yummy' is paid a fixed monthly salary and shares part of the profits. Give **ONE** advantage of **EACH** of the above two payment methods to the shop. (4 marks)

1996/CE/II/12(b)

Piece rate is a common payment method in the manufacturing industry. From an employer's point of view, explain **ONE** advantage and **ONE** disadvantage of this payment method. (4 marks)

1998/CE/II/1(a)

Car agents in general pay their salesmen a commission for each car sold in addition to their basic monthly salary. From the viewpoint of car agents, explain **TWO** advantages of using such a wage payment method. (4 marks)

1999/CE/II/3

Study the following two advertisements:

Company A Lorry Driver Wanted Wage: \$10 000 per month	Company B Lorry Driver Wanted Wage: \$200 per trip
---	---

Name the two types of wage payment method and give **ONE** advantage of **EACH** over the other from the viewpoint of the employer. Explain your answer. (6 marks)

2001/CE/II/9(c)

Mr Chan is the owner of a garment factory and pays his workers at piece rate. State **ONE** advantage and **ONE** disadvantage to Mr Chan of using this payment method over the time rate method. (2 marks)

2002/CE/II/12(b)(i)

In order to cut expenses, Mr Wong reduces the monthly salaries of the staff working in the bookstore. Give **ONE** advantage and **ONE** disadvantage to Mr Wong of paying his staff by time rate over piece rate. (4 marks)

2007/CE/1/2

Refer to the following job descriptions of Post A and Post B.

Post A Typing clerk Working hours: 9:00am. - 5:00pm. 5 days a week Wage: \$8 000 per month	Post B Typing services Transforming documents into WORD files Payment: \$4 per A4 paper (about 200 words)
---	--

- (a) What are the wage payment methods for Post A and Post B, respectively? (2 marks)
- (b) Explain ONE disadvantage to the employer when using the wage payment method in
- (i) Post A. (2 marks)
- (ii) Post B. (2 marks)

2008/CE/1/9(c)

Some employees of securities firms (證券行) are paid a basic salary plus commission. Give TWO advantages of such a payment method over time rate to the employers.

(4 marks)

2009/CE/1/4

Refer to the following descriptions of Job A and Job B.

Job A Distilled water delivery driver Payment: \$1 per unit of distilled water delivered	Job B Distilled water delivery driver Wage: \$300 per day
--	--

- (a) The wage payment method for Job A is _____ (1 mark)
- The wage payment method for Job B is _____ (1 mark)
- (b) Explain ONE advantage and ONE disadvantage to the employer of using the wage payment method for Job A over Job B. (4 marks)

2010/CE/1/3

The salespersons in many large electrical appliance retailing shops are paid a basic salary plus commission. From the viewpoint of the shop owners, explain ONE advantage of using this wage payment method over the payment method of a basic salary only and ONE advantage over the payment method of a commission only. (4 marks)

2013/DSE/11/10(b)

The following is a job advertisement for a manager in a restaurant.

Manager Working hours: 12:00 noon – 10:00 p.m. 6 days a week Salary: \$15 000 per month + performance-related bonus

- (i) From the viewpoint of the restaurant owner, explain ONE advantage of the above payment method over time rate. (2 marks)
- (ii) From the viewpoint of the manager, explain ONE advantage of the above payment method over a profit-sharing scheme. (2 marks)

2015/DSE/11/10(b)

The following are contracts for two professional football players.

Contract A Player A: \$10 000 per week	Contract B Player B: \$8 000 per match \$10 000 for each goal scored
--	---

Explain TWO advantages of Contract B over Contract A from the viewpoint of the employer. (4 marks)

2017/DSE/11/2(a)

Steven is a restaurant owner. He pays his waiters a monthly salary and allows them to keep the tips from customers.

Compared to time rate, explain why the above arrangement is preferred from the viewpoint of

- (i) the employees. (2 marks)
- (ii) the employer. (2 marks)
- (4 marks)

2018/DSE/11/10(a)

Foreign domestic helpers are paid with a minimum wage at HK\$4410 per month for a two-year contractual period in Hong Kong.

Explain why foreign domestic helpers are paid by a monthly salary instead of a piece rate. (2 marks)

2019/DSE/11/9

A beauty queen in Hong Kong, Miss Amy Au, is famous for demonstrating the use of cosmetic products with short videos on social media websites. She also sells Japanese cosmetic products on her website.

She plans to hire two staff members to operate her website:

Personal assistant Duties: Arrange daily schedules and meetings Salary: \$12 000 per month	Video designer Duties: Produce short videos to be uploaded in social media Salary: \$1 000 per video
---	---

- (c) From the viewpoint of Miss Amy Au, suggest ONE advantage and ONE disadvantage of the payment method of the personal assistant. (2 marks)
- (d) From the viewpoint of the employee, suggest ONE advantage and ONE disadvantage of the payment method of the video designer. (2 marks)

MARKING SCHEME

1991/CE/11/08 D	1996/CE/11/16 A	2000/CE/11/15 D	2009/CE/11/18 A (77%)
1991/CE/11/22 D	1998/CE/11/17 D	2002/CE/11/16 D (66%)	2012/DSE/1/07 A (76%)
1994/CE/11/18 D	1999/CE/11/13 C	2003/CE/11/18 A (84%)	2013/DSE/1/07 D (83%)
1995/CE/11/17 A	1999/CE/11/51 B	2006/CE/11/16 B (75%)	2016/DSE/1/10 A (94%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/1/1(a)(iii)
- output is difficult or costly to measure
- work not standardized
- easy to calculate wage payment
(Mark the **FIRST TWO** reasons only.) (2@, max: 4)

1992/CE/1/1(c)
(As compared with the case when the driver is paid a fixed wage.)
Advantages:
- part of the risks can be shifted onto the driver
- the owner may earn a higher income as the driver has a higher working incentive (3@, max: 3)

Disadvantages:
- under-report of the true revenue as the driver tends to cheat
- higher maintenance cost as the driver tends to over-utilize the taxi
(More listing of point elaboration – max. 1 mark. Mark the **FIRST** point only.) (3@, max: 3)

1993/CE/1/1(d)
Time rates
- the manager's output is difficult or costly to measure / work not standardized
- easy to calculate the wage payment (2@, max: 2)

Profit-sharing
- the manager has higher incentive to manage the firm
- better control of production cost
- the manager is more loyal to the firm
(Mark the **FIRST** point only.) (2@, max: 2)

1996/CE/1/12(b)
Advantages:
- higher working incentive
- lower monitoring (2@, max: 2)

Disadvantage:
- less careful in using the machinery
- better quality control is required
(Mark the **FIRST** point only.) (2@, max: 2)

1998/CE/1/11(a)
- basic monthly salary to maintain a team of staff
- commission to increase the incentive to sell
- to lower the monitoring cost because the amount of commission already reflects the output of the salesman
- to share risk of operation with the salesman because commission payment varies with the sales revenue (2@, max: 4)
(Mark the **FIRST TWO** points only.)

1999/CE/1/3
Company A is using time rate (1)
and Company B is using piece rate. (1)

Time rate:
- to avoid the disadvantage of using piece rate under which workers may forego quality for quantity
- to maintain a steady supply of workers within a time period
- no need to measure the output for determining the wage payment (2@, max: 2)

Piece rate:
- to improve the incentive to produce more or to increase productivity of workers
- to save the monitoring cost of workers (e.g. quality control)
- less rigid to adjust the total production cost: extra workers can be employed or dismissed according to the business volume (2@, max: 2)
(Mark the **FIRST** point only.)

2001/CE/1/9(c)
Advantage:
- his workers would have a higher working incentive
- lower cost of supervision (1@, max: 1)

Disadvantage:
- higher cost of monitoring the quality of the products
- more costly to calculate the wage payment
(Mark the **FIRST** point only.) (1@, max: 1)

2002/CE/1/12(b)(i)
Advantage:
- to maintain a team of staff
- lower cost of measuring the contribution of the workers (2@, max: 2)

Disadvantage:
- lower working incentive
- higher supervising cost
(Mark the **FIRST** point only.) (2@, max: 2)

2007/CE/1/2
(a) Post A: time rate (1)
Post B: piece rate (1)

(b) (i) - higher monitoring cost
- lower working incentive
- lower productivity (2)

(ii) - lower quality of product
- higher cost of measuring the output
[Mark the **FIRST** point only.] (2)

2008/CE/1/9(c)

- to increase the working incentive
 - to lower the cost of monitoring the performance of the employees
 - to spread the business risk between the employer and the employees
- (Mark the FIRST TWO point only.)

(2@, max: 4)

2009/CE/1/4

- (a) Job A: piece rate
Job B: time rate

(1)
(1)

- (b) One advantage:
- lower cost of supervising their workers
- higher working incentive
- higher productivity

(2)

- One disadvantage:
- higher cost in measuring the output
- higher cost of monitoring the quality of service
- [Mark the FIRST point only.]

(2)

2010/CE/1/3

- Advantage of this payment method to shop owners over the payment method of a basic salary only:
- to increase the incentive to sell more
- lower the monitoring cost of the work effort
- share risk of operation with the salespersons

(2)

- Advantage of this payment method to shop owners over the payment method of a commission only:
- to maintain a team of staff / reduce turnover rate as salespersons won't leave easily
- easier to employ staff due to more stable income
- [Mark the FIRST advantage only.]

(2)

2013/DSE/11/10(b)

- (i) It improves the work incentive of the manager.
- (ii) It gives a more stable income as the manager still receives a basic salary even if the business is poor.

(2)

(2)

2015/DSE/11/10(b)

- The owner of the football team can share some business risks with Player B as the former would make less payment to the latter when no match is played and/or no goal is scored
- The owner of the football team can have a lower cost of monitoring players' performance as Player B would have a higher work incentive in training and in matches

(2)

(2)

2017/DSE/11/2(a)

- (i) possibility of getting higher income with more effort and/or better service
- (ii) lower cost of monitoring the performance of the waiters and/or higher incentives for the waiters to work harder and provide higher-quality service to the customers

(2)

(2)

2018/DSE/11/10(a)

- The cost of measuring the output of the foreign domestic helpers is too high / the work of domestic helpers is not standardised.

(2)

2019/DSE/11/9

- (c) Advantage: Cost of measuring output of the employees can be saved.
Disadvantage: Work incentive may not be high.
[Mark the FIRST advantage and FIRST disadvantage only.]

(2)

- (d) Advantage: Higher output will yield higher income.
Disadvantage: Income may be unstable.
[Mark the FIRST advantage and FIRST disadvantage only.]

(2)

2.8 PRIVATE GOODS & PUBLIC GOODS

Multiple Choice Questions

1985/AL/1/10

A public good is

- A. a good produced by the government and made available to the public.
- B. a good which the private sector is not able to produce profitably.
- C. a good that is not scarce.
- D. a good that can be consumed by many individuals at the same time.

1986/AL/1/08

Which of the following is an example of a public good?

- A. the postal service
- B. a lighthouse
- C. a loaf of bread
- D. public medical services

1988/AL/1/03

A good is a public good if

- A. it is provided by the government free of charge.
- B. it can be consumed concurrently by many individuals.
- C. no one has to give up any other good to get more of the good in question.
- D. it is jointly owned by a large number of individuals.

1989/AL/1/24

A public good is

- A. a free good.
- B. a good produced by the government.
- C. the same as a public utility.
- D. a good that can be consumed by many individuals at the same time.

1990/AL/1/29

In an ocean which is NOT privately-owned, fish

- A. are a free good, because they are so abundant that more of them are not wanted.
- B. are not an economic good if the fishermen are not allowed by the government to compete among themselves.
- C. are a public good, because the fish are publicly-owned.
- D. are an economic good, because we are willing to sacrifice something in exchange for the fish.

1996/AL/1/04

Subscription (fee-paying) television programme broadcast by the Cable TV in Hong Kong is evidence of the fact that

- A. a public good is produced by a private enterprise.
- B. government action is necessary for reducing the divergence between private and social costs.
- C. free riders can be identified without cost.
- D. a public good becomes a private good whenever a fee is charged.

1996/AL/1/16

A public good is

- A. a free good which can be consumed by an unlimited number of consumers.
- B. a common property because no one can exclude others from using it.
- C. a good for which the marginal cost of serving an additional consumer is zero.
- D. a good for which the marginal cost of producing an additional unit is zero.

1997/AL/1/05

A public good

- A. cannot be produced efficiently by private firms.
- B. is free of charge.
- C. can be consumed by many individuals at the same time.
- D. is the same as a free good.

1998/AL/1/25

A public good is

- A. a free good.
- B. owned by the public.
- C. produced by the government.
- D. amenable for consumption by many individuals at the same time.

1999/AL/1/21

Which of the following statements about a public good is correct?

- A. A public toilet (water closet) is an example of a public good.
- B. When the marginal cost of serving a good to an extra consumer is zero, that good is a public good.
- C. A public good is characterized by the fact that one person's use of the good does not reduce the amount available for himself in the future.
- D. None of the above.

2000/AL/1/28

A common property

- A. induces non-price competition.
- B. is a free good because it has no market price.
- C. is a good that can be consumed concurrently by more than one individual.
- D. is a good owned collectively by more than one individual.

2001/AL/1/15

A public good is

- A. a good provided by the government but a price is charged.
- B. a good that must be produced by the government because it is too costly for a private producer to sell and collect payments.
- C. a good that can be consumed by many individuals at the same time.
- D. a good that may be used by the public free of charge.

2002/AL/1/28

Which of the following is an example of a public good?

- A. books in a public library.
- B. a public beach.
- C. the music of Mozart.
- D. a piece of abandoned land.

2003/AL/1/17

A public good

- A. is a free good.
- B. may be consumed by many individuals at the same time.
- C. is a good produced by a public agent.
- D. is a good provided free of charge by the government.

2005/AL/1/28

Which of the following comes closest to a public good?

- A. A public telephone in a booth in Central.
- B. The singing of Teresa Tang (鄧麗君).
- C. The City Hall Library.
- D. The public beach at the repulse Bay.

2007/AL/1/29

Which of the following is a public good?

- A. The music of Mozart.
- B. A public toilet.
- C. A box of candies shared by many people.
- D. A lighthouse serving only one boat.

2008/AL/1/27

Which of the following comes closest to the nature of a public good?

- A. the music of Mozart
- B. a piano performance of Mozart's music
- C. a compact disc of Mozart's music
- D. a performance of Mozart's operas

2010/AL/1/23

Which of the following statements about public goods is correct?

- A. A public good is a good provided free-of-charge by the government.
- B. A public good is a good that can be consumed concurrently by a large number of users.
- C. There is no competition in the production of public goods.
- D. A public good is a good that is not scarce.

2010/AL/1/30

Which of the following is a public good produced privately?

- A. national defence
- B. the poems of Su Dongpo (蘇東坡)
- C. the service of a court judge
- D. the books of Milton Friedman

2011/AL/1/24

A public good is

- A. a good that is not scarce.
- B. a good for which the marginal cost of producing an additional unit is zero.
- C. a common property which is owned by the public.
- D. None of the above.

2011/AL/1/29

Oysters found on a public beach

- A. are not private goods because there are no private property rights governing them.
- B. are public goods because there are common properties.
- C. are economic goods because people are willing to pay a price to get them.
- D. are free goods because they are provided by nature.

2012/DSE/1/04

A parking lot in the government headquarter is reserved for government officials. The parking lot is _____ because _____.

- A. a private good it is for private use only
- B. a private good concurrent consumption is not possible
- C. a public good the government owns it
- D. a public good no one has an exclusive right to use

2013/DSE/1/06

The television broadcast of European football matches is

- A. a public good if citizens can enjoy the broadcast of matches in public areas like restaurants and Karaoke lounges.
- B. a private good if a local television broadcasting company has purchased the exclusive right to broadcast in Hong Kong.
- C. a free good because there is no cost in serving an additional viewer.
- D. a producer good if the broadcast is used to teach the children in a football training school.

2017/DSE/1/03

A public good

- A. is a good with zero marginal cost of production.
- B. can only be provided by the government.
- C. cannot be protected by private property rights.
- D. allows concurrent consumption by many individuals.

2018/DSE/1/05

Which of the following statements about the exhibits in the Louvre Museum is correct?

- A. They are public goods because the Louvre Museum is open to the public.
- B. They are capital because they are man-made resources used in production.
- C. They are consumer goods because more of them are preferred.
- D. They are economic goods because they satisfy human wants.

In Lunar New Year, tourists reserve tables in waterfront restaurants to enjoy firework display. The firework display is a _____ because _____.

- A. public good the government pays for the firework display
- B. public good one individual's consumption will not reduce its availability to others
- C. private good private firms have to use resources to produce the firework display
- D. private good the seats in waterfront restaurants are excludable in consumption

Microeconomics by Topic
2. Production

Short & Structured Questions

2015/DSE/II/1(a)(ii)

More and more famous universities offer "massive open online courses" (MOOC) to students from various backgrounds for systematic learning.

Most of the teaching materials in MOOC can be accessed online by anyone free of charge. Explain whether these materials are public goods. (3 marks)

MARKING SCHEME

1985/AL/1/10 D	1996/AL/1/04 A	2000/AL/1/28 A	2007/AL/1/29 A (91%)	2011/AL/1/29 C (75%)
1986/AL/1/08 B	1996/AL/1/16 C	2001/AL/1/15 C	2008/AL/1/27 A (95%)	2012/DSE/1/04 B (72%)
1988/AL/1/03 B	1997/AL/1/05 C	2002/AL/1/28 C	2010/AL/1/23 B	2013/DSE/1/06 D (55%)
1989/AL/1/24 D	1998/AL/1/25 D	2003/AL/1/17 B	2010/AL/1/30 B	2017/DSE/1/03 D (82%)
1990/AL/1/29 D	1999/AL/1/21 B	2005/AL/1/28 B (82%)	2011/AL/1/24 D (63%)	2018/DSE/1/05 B (58%)

2020/DSE/1/2
B

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2015/DSE/II/1(a)(ii)

Yes, because

- a person can download and study the course materials without reducing the availability of those materials to others, i.e., (1)
- these materials are non-rivalrous in consumption. (2)

[Note: The answer can be "No" if there exist network capacity constraints (or congestion problems) in downloading the course materials.]

SECTION 3: INPUT-OUTPUT RELATIONSHIP

3.1 THE LAW OF DIMINISHING RETURNS

Multiple Choice Questions

1990/CE/II/06

No. of Workers	Marginal Output
1	10
2	12
3	14
4	13
5	12

From the above table, the average output will be the highest when _____ workers are employed.

- A. 2
- B. 3
- C. 4
- D. 5

1992/CE/II/17

Suppose labour is the only variable factor in producing Good X. The daily total product of X is shown below:

Number of Workers	Total Product (units)
1	10
2	23
3	42
4	62
5	80

Diminishing marginal returns will set in after _____ workers are employed

- A. 2
- B. 3
- C. 4
- D. 5

1994/CE/II/21

The law of diminishing returns

- A. states that firms will keep on adding variable factors to fixed factors
- B. implies that firms will eventually operate at a loss.
- C. implies that marginal product can be negative
- D. explains production in the long run.

1996/CE/II/22

Short run is a period in which

- (1) there are fixed factors of production.
- (2) there are variable factors of production.
- (3) the technology of production is fixed.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1996/CE/II/23

No. of workers	1	2	3	4
Average product (units)	2	6	7	4

Refer to the above table. Diminishing marginal return sets in after _____ workers are employed in the production.

- A. 1
- B. 2
- C. 3
- D. 4

1999/CE/II/15

No. of workers	Marginal Output (Units)
1	10
2	12
3	11
4	10
5	7

From the above table, the average output will start to diminish when the _____ worker is put to work.

- A. first
- B. second
- C. third
- D. fourth

2002/CE/II/13

The following table shows the monthly production of a firm with two inputs, labour and machines.

Machines (Units)	Labour (Units)	Total Product (Units)
1	3	18
1	4	28
1	5	40
1	6	50
1	7	X

If the law of diminishing marginal returns applies to the firm, X

- A. must be smaller than 50.
- B. can be any value greater than 50.
- C. must be smaller than 60.
- D. is equal to 60.

2003/CE/II/20

The information below refers to Mr Chan's factory.

No. of workers	Average Output (Units)
10	5
11	6
12	7

Suppose diminishing marginal return sets in when more than 12 workers take part in production. The total output of 13 workers

- A. can be greater than 102 units.
- B. may be equal to 102 units.
- C. must be less than 102 units.
- D. is indeterminate.

2004/CE/II/18

The input-output relationship of Firm A is as follows:

Labour (Units)	Machinery (Units)	Average Output of Machinery (Units)
4	1	6
4	2	7
4	3	8
4	4	7
4	5	5

According to the above table, diminishing marginal returns set in when the ___ unit of machinery is employed.

- A. 2nd
- B. 3rd
- C. 4th
- D. 5th

2006/CE/II/17

The input-output relationship of Firm A is as follows:

Labour (Units)	Machine (Units)	Marginal Product of Labour (Units)
1	2	14
2	2	16
3	2	18
4	2	X

Diminishing marginal returns set in after the 3rd unit of labour is employed. The average product of 4 units of labour can be _____ units of output.

- A. 16
- B. 16.5
- C. 17
- D. 17.5

2008/CE/II/16

The input-output relationship of a firm is as follows:

Labour (units)	Machinery (units)	Average product of labour (units)
1	2	14
2	2	15
3	2	16

Diminishing marginal returns set in after the 3rd unit of labour is employed. The marginal product of the 4th unit of labour must be any number of output smaller than _____ units.

- A. 15
- B. 16
- C. 17
- D. 18

2010/CE/II/19

The input-output relationship of a firm is as follows:

Machine (units)	Labour (units)	Average product of labour (units)
3	1	20
3	2	12
3	3	11
3	4	10

According to the above table, diminishing marginal returns set in after _____ unit(s) of labour is/are employed.

- A. 1
- B. 2
- C. 3
- D. 4

2014/DSE/I/05

The following table shows a production plan of a firm which employs two factors only, namely labour and machinery.

Labour (unit)	Machinery (unit)	Total Product (unit)
1	4	100
2	4	120
3	4	150
4	4	170
5	4	165

The marginal product of labour will start to diminish when the _____ unit of labour is put to work.

- A. second
- B. third
- C. fourth
- D. fifth

2015/DSE/I/09

The table below shows the total product of Firm A, which employs only capital and labour in production.

Labour (units)	Capital (units)	Total Product (units)
12	2	110
12	3	130
12	4	160
12	5	X

Which of the following statements about Firm A is correct?

- A. If the above data illustrate the law of diminishing marginal return, the value of X can be equal to 180.
- B. If the above data illustrate the law of diminishing marginal return, the value of X can be equal to 190.
- C. If the above data illustrate the law of diminishing marginal return, the value of X can be larger than 200.
- D. The law of diminishing marginal return does not apply to Firm A because capital is not a fixed factor.

2018/DSE/I/10

The following table shows the input-output relationship of a firm. The only inputs required are capital and labour.

Capital (units)	Labour (units)	Marginal product of labour (units)
2	1	5
2	2	7
2	3	9
2	4	8
2	5	6

The average product of labour is at the highest when the quantity of labour is _____ units.

- A. 2
- B. 3
- C. 4
- D. 5

Short & Structured Questions

1994/CE/I/11(a)

Mr Chan owns a farm. The following table shows the input-output relationship of this farm.

Fertilizers (Units)	Land (Units)	Labour (Units)	Total Output of Vegetables (Units)
0	10	40	30
1	10	40	70
2	10	40	120
3	10	40	160
4	10	40	190

State the law of diminishing returns and explain whether this law applies to Mr Chan's farm. (6 marks)

1997/CE/I/3

The following table shows the fall in total output of a factory when there are sick workers who cannot come to work.

No. of sick workers absent from work	Decrease in daily output (units)
1	20
2	50
3	90
4	140
5	200

Use the above data to illustrate the law of diminishing marginal returns.

(5 marks)

1998/CE/I/4

The following table shows the weekly production of a garment factory with only two factors of production

No. of Machines	No. of Workers	Total Product (Units)
1	2	20
2	3	28
3	4	31
4	5	31
5	6	30

(a) State the law of diminishing marginal returns.

(4 marks)

(b) Explain whether the above data illustrate the law of diminishing marginal returns.

(2 marks)

2000/CE/I/4

The table below shows the production of a firm.

Machinery (units)	Labour (units)	Average output of labour (units)
10	7	30
10	8	34
10	9	37
10	10	39
10	11	40

State the law of diminishing marginal returns and explain whether the above data illustrate the law.

(6 marks)

2001/CE/1/3

The table below shows the production of a firm.

Labour (Units)	Machinery (Units)	Total Product (Units)
10	5	100
11	5	150
12	5	250
13	5	400
14	5	530

Explain which law in economics can be illustrated by the above data.

(7 marks)

2003/CE/1/2

(a) State the law of diminishing marginal returns.

(3 marks)

(b) The following table shows the input-output relationship of a firm. Explain why the table illustrates the law in (a).

Machine (Unit)	Labour (Unit)	Average output of machine (Unit)
1	3	12
2	3	13
3	3	14
4	3	13

(3 marks)

2006/CE/1/4

The table below shows the input-output relationship of a firm.

Labour (Units)	Machine (Units)	Total output of labour (Units)
2	3	40
3	3	90
4	3	150
5	3	180
6	3	200

State the law of diminishing marginal returns and explain whether the above data illustrate the law.

(6 marks)

2007/CE/1/3

(a) State the law of diminishing marginal returns.

(3 marks)

(b) Study the following information on a factory.

Machines (units)	Labour (units)	Average product (units)
1	5	40
1	6	70
1	7	90
1	8	100

Explain whether the above data illustrate the law of diminishing marginal returns.

(4 marks)

2009/CE/1/3

The table below shows the input-output relationship of a firm.

Labour (Units)	Machine (Units)	Average output of labour (Units)
1	2	10
2	2	12
3	2	14
4	2	16
5	2	17

State the law of diminishing marginal returns and explain whether the above data illustrate the law.

(6 marks)

2012/DSE/1/2

The table below shows the input-output relationship of a firm.

Workers (units)	Machine (units)	Total output (units)
10	1	10
15	2	23
20	3	42
25	4	62
30	5	80

State the law of diminishing marginal returns and explain whether the above data illustrate the law.

(5 marks)

2016/DSE/1/3

The table below shows the input-output relationship of a firm.

Machine (units)	Labour (units)	Average output of labour (units)
2	1	10
2	2	12
2	3	14
2	4	14
2	5	13

State the law of diminishing marginal returns and explain whether the above data illustrate the law.

(6 marks)

MARKING SCHEME

1990/CE/II/06 C	1996/CE/II/22 D	2002/CE/II/13 C (58%)	2006/CE/II/17 A (58%)	2014/DSE/II/05 C (79%)
1992/CE/II/17 C	1996/CE/II/23 B	2003/CE/II/20 C (62%)	2008/CE/II/16 D (53%)	2015/DSEA/09 A (79%)
1994/CE/II/21 C	1999/CE/II/15 D	2004/CE/II/18 C (69%)	2010/CE/II/19 C (44%)	2018/DSEA/10 C (65%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1994/CE/II/11(a)

Law of diminishing returns:

When variable factors are added continuously to the fixed factors, the marginal product will eventually diminish. (3)

Fertilizers (Units)	Land (Units)	Labour (Units)	TP (Units)	MP (Units)
0	10	40	30	-
1	10	40	70	40
2	10	40	120	50
3	10	40	160	40
4	10	40	190	30

From the above table, after 2 units of the variable factor (fertilizers) are employed, an additional unit of fertilizers leads to a fall in MP \Rightarrow the law applies to the farm. (3)

1997/CE/II/3

Assume that the factory has 100 workers. (The number is arbitrary.) After 95 workers are employed, the change in MP caused by adding more and more workers in production can be found by converting the table given in the question into the following table:

No. of workers coming to work	MP (units / day)
95	-
96	60
97	50
98	40
99	30
100	20

(2)

In other words, when the variable factor (labour) is continuously added to the fixed factors (land, capital and entrepreneurship), the marginal product will eventually diminish. This is the law of diminishing marginal returns. (3)

1998/CE/II/4

(a) When a variable factor is successively added to the fixed factor(s), (holding technology constant) the marginal product will eventually diminish. (2)

(b) No, because all factors are variable in long-run production. (2)

2000/CE/II/4

The law states that when variable factors are added continuously to the fixed factors, (holding technology constant), the marginal product will eventually decrease. (3)

The marginal product calculated is shown below: (3)

AP	MP
30	-
34	62
37	61
39	57
40	50

\therefore The data illustrate the law of D.M.P.

2001/CE/II/3

(The data show that) machinery is a fixed factor and when the variable factor, labour, is added successively to machinery, the marginal product eventually diminishes. (1)

Labour (units)	Machinery (units)	MP (units)
10	5	-
11	5	50
12	5	100
13	5	150
14	5	130

(2)

\therefore the data illustrate the law of diminishing marginal returns. (1)

2003/CE/II/2

(a) The law states that as the variable factor is continuously added to the fixed factor, the marginal product will eventually diminish. (3)

(b)

Machine (Unit)	MP (Unit)
1	-
2	14
3	16
4	10

It illustrates the law in (a) since MP eventually diminishes from 16 units of output to 10 units of output when the 4th unit of machine is added to the production. (3)

2006/CE/II/4

The law states that when variable factors are added continuously to the fixed factors, [holding technology constant] the marginal product will eventually decrease. (3)

Labour (Units)	4	5	6
Marginal Product (Units)	60	30	20

(2)

OR

Diminishing marginal product of labour sets in when labour increases from 4 units to 5 units as the marginal product falls from 60 to 30 units. (2)

\therefore The data illustrate the law of diminishing marginal returns. (1)

2007/CE/II/3

(a) The law states that when variable factors are added continuously to the fixed factors, the marginal product will eventually decrease. (3)

(b)

Labour (units)	Marginal product (units)
5	-
6	220
7	210
8	170

(2)

Yes, because the marginal product decreases. (1)

2009/CE/1/3
The law states that when variable factors are added continuously to the fixed factors, the marginal product will eventually decrease. (3)

Machine (units)	Marginal output of labour (units)
3	18
4	22
5	21

(2)

Yes, because the marginal product decreases. (1)

2012/DSE/1/2
The law states that (holding technology constant) when more units of a variable factor are added successively to a given quantity of fixed factors, the marginal product of this factor will eventually diminish. (3)

No, because there is no fixed factor / long-run production. (1)

2016/DSE/1/3
The law states that (holding technology constant) when more units of a variable factor are added successively to a given quantity of fixed factors, the marginal products of this factor will eventually diminish. (3)

Yes, because when labour increases from 5 to 4 units, the marginal product of labour drops from 18 to 14 units (, so the law of diminishing returns holds). (2)

3.2 VARIABLE AND FIXED COSTS

Multiple Choice Questions

1990/CE/1/11
Which of the following is regarded as a fixed cost of a restaurant?

- A. the water charges
- B. the wages of the part-time workers
- C. the expenditure on meat and vegetables
- D. the rent of the restaurant

2005/CE/1/10
Suppose the MTR extends its service hours on New Year's Eve. Which of the following are the MTR's variable costs of extending the service hours?

- (1) electricity expense
- (2) overtime payment to the drivers
- (3) interest payment for loans from banks

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2017/DSE/1/10
An art centre extends its business hours for one hour in order to offer more painting classes. Which of the following are variable costs involved in the extra hour of operation?

- (1) salary of the accountant
- (2) electricity fee
- (3) expense on paints
- (4) rental payment

- A. (1) and (4) only
- B. (2) and (3) only
- C. (1), (2) and (4) only
- D. (1), (2), (3) and (4)

Short & Structured Questions

1991/CE/1/4(a)(ii)

Mr. Chan was a lorry driver of a construction company. Last year, he left the company and began to work on his own with his lorry, taking orders directly from customers.

Suggest **ONE** fixed cost and **ONE** variable cost in the above production process. Explain your answer. (6 marks)

2014/DSE/1/2(b)

Ah Wing runs a store selling mobile phone accessories in Mong Kok. Give **ONE** example of variable cost incurred in Ah Wing's business. Explain your answer. (2 marks)

MARKING SCHEME

1990/CE/1/1
D

2003/CE/1/10
A (90%)

2017/DSE/1/10
B (87%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/1/4(a)(ii)

License fee of the lorry / monthly parking fee of the lorry / registration fee of the firm is a fixed cost, because it does not vary with the output level. (1)
(2)

Cost of petroleum / depreciation of the lorry is a variable cost, because it varies with the output level. (1)
(2)

2014/DSE/1/2(b)

Cost of buying the accessories, or wages of part-time workers, because expenses on these items would vary (increase) with the output of Ah Wing's shop. (1)
(1)
[Mark the **FIRST** example only.]

3.3 ECONOMIES & DISECONOMIES OF SCALE

Multiple Choice Questions

1990/CE/1/22

'As the carrying capacity of a bus increases, the oil consumption increases. However, the oil consumption increases at a slower rate than the carrying capacity. This is an example of

- A. external economies of scale
- B. technical economies of scale
- C. management economies of scale
- D. research economies of scale

1991/CE/1/20

The cost per tonne of goods transported by a bigger lorry is lower than that of a smaller one. This is an example of

- A. management economies
- B. marketing economies
- C. financial economies
- D. technical economies

1992/CE/1/20

The Urban Council and Regional Council are responsible for growing young trees for planting around Hong Kong. Each nursery is usually large in size. Furthermore, a large number of the same kind of young trees are planted in the same area of the nursery. This type of nursery has the following advantages:

- (1) economy of scale on irrigation facilities
- (2) economy of scale by caring for plants of the same kind
- (3) economy of scale in purchasing fertilizers

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1993/CE/1/21

'It is uneconomical to use a jumbo aircraft to carry a small number of passengers.' This can be explained by

- A. the principle of comparative advantage
- B. the law of diminishing returns
- C. technical economies
- D. diseconomies of scale

1995/CE/1/22

Which of the following about economies of scale is true?

- A. It applies to short-run as well as long-run production.
- B. It will lead to a decrease in the average cost of production when the output increases.
- C. It occurs only when scale of production is sufficiently large.
- D. It will lead to a decrease in the total cost of production when the output increases.

1998/CE/II/13

In general, which of the following are the advantages of a small firm over a large firm in the same industry?

- (1) There is a better relationship between the employees and the employer.
- (2) It is more adaptable to changing market situations.
- (3) Specialization can be carried out more extensively.
- (4) More funds can be raised at a lower cost.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

2000/CE/II/17

Which of the following implies the existence of economies of scale?

- A. The total cost of production decreases when output increases.
- B. The average cost of production decreases when the production scale increases.
- C. Profit increases when output increases.
- D. The amount of output increases by a smaller proportion than that of inputs.

2004/CE/II/20

Compared with small stores, large supermarkets purchase a large stock of goods from suppliers at a lower average cost. It shows that these large supermarkets enjoy _____ economies of scale.

- A. finance
- B. management
- C. technical
- D. marketing

2005/CE/II/18

When a firm enjoys economies of scale, it is in the _____ and its _____ is decreasing.

- A. short run average cost
- B. long run average cost
- C. short run total cost
- D. long run total cost

2006/CE/II/18

If large publishers are more able to fully utilize their machinery to lower the average cost than small publishers, then these large publishers enjoy _____ economies of scale.

- A. financial
- B. management
- C. marketing
- D. technical

2008/CE/II/17

Compared with local small accounting firms, large accounting firms in Hong Kong are more willing to use resources to familiarize themselves with China's laws in order to expand their business into Mainland China. One possible reason is that large accounting firms enjoy

- A. financial economies of scale.
- B. technical economies of scale.
- C. marketing economies of scale.
- D. economies of scale in research and development.

2013/DSE/1/05

In order to increase the number of nurses for expanding medical services, the government has allocated more resources to expand the nursing programme in universities. In this case, private hospitals will

- A. enjoy internal economies of scale.
- B. suffer internal diseconomies of scale.
- C. enjoy external economies of scale.
- D. suffer external diseconomies of scale.

2016/DSE/II/07

A school is a production unit which provides educational services. The following are people and objects that are usually found at a school:

- (1) the school building
- (2) teachers
- (3) students
- (4) private cars owned by teachers
- (5) sanitisers (洗手液) in the toilets

In the long run, which of the above items are variable factors of production of the school?

- A. (1) and (5) only
- B. (1), (2) and (5) only
- C. (2), (3) and (4) only
- D. (1), (2), (3), (4) and (5)

2018/DSE/II/12

Which of the following statements about economies of scale is correct?

- A. It could be a source of monopoly power.
- B. It exists when the average fixed cost is falling.
- C. Only large firms enjoy economies of scale.
- D. It is the result of the law of diminishing marginal returns.

2020/DSE/1/7

Tai On Building (太安樓) in eastern Hong Kong Island is well-known as a 'foodie paradise'. A variety of street snacks such as cart noodles, egg waffles, dumplings and mango mochi are sold by numerous small vendors. Customers from different districts fill their stomachs at Tai On Building.

Based on the above information, street snack vendors at Tai On Building can _____.

- A. enjoy internal economies of scale
- B. enjoy external economies of scale
- C. suffer internal diseconomies of scale
- D. suffer external diseconomies of scale

Short & Structured Questions

1992/CE/1/1(b)

Suggest **TWO** reasons why it can be more advantageous to run a large taxi company with many taxis rather than a small taxi company with only one taxi. (6 marks)

1993/CE/1/1(c)

Yummy Yummy is a fast food shop.

(i) Last year, 'Yummy Yummy' planned to establish a branch. Explain whether this was a short-run or long-run plan. (2 marks)

(ii) After the opening of this branch, the unit cost of producing hamburgers is lower. Give **TWO** economic reasons for this. (6 marks)

1995/CE/1/10(a)(ii)

Study the following piece of news reported in the USA:

A local singer has volunteered to perform two identical shows and the sales receipt of the concert tickets will be donated to the Rwanda refugees in Africa for their food and medical supply expenses.

Explain **TWO** economies of scale that may arise from holding two identical shows instead of only one show. (4 marks)

1997/CE/1/9(a)

Suppose the government builds a railway in northwest New Territories.

If the new railway is to be run by the Kowloon-Canton Railway Corporation (KCRC), give **TWO** reasons why this can bring down the average cost of KCRC. (4 marks)

2000/CE/1/10(b)(i)

Suppose Bank X of economy A takes over Bank Y of economy B by buying up its controlling share worth \$5 million. Explain what type of expansion the takeover belongs to and explain **THREE** economies of scale that may arise from the takeover. (8 marks)

2004/CE/1/11(c)(i)

A famous chain of fashion stores opens a new branch.

Explain **TWO** economies of scale that the chain stores might enjoy due to the expansion. (4 marks)

2007/CE/1/1

It is expected that the average cost of providing the railway service will decrease after the integration of the Mass Transit Railway Corporation Limited (MTRC) and the Kowloon-Canton Railway Corporation (KCRC). Give **THREE** reasons to explain why such integration could reduce the average cost. (6 marks)

2009/CE/1/9(a)

In recent years, the price of textbooks has become a public concern.

Textbook publishers usually print textbooks in large amounts in order to reduce their average cost of production. Explain **TWO** economies of scale that a firm may enjoy when it expands its production scale. (4 marks)

2010/CE/1/9(a)

Ocean Park Hong Kong is undergoing a major redevelopment plan.

Ocean Park will expand to double the number of its attractions. Explain **TWO** economies of scale that it may enjoy after expansion. (4 marks)

2015/DSE/1/2(b)

Many electronic product retailers are located in Mong Kok.

Suggest **TWO** reasons why an electronic product retailer in Mong Kok may enjoy external economies of scale. (4 marks)

2016/DSE/1/2(c)

The average cost of providing the services decreases when the Group operates more tutorial classes in different districts. Give **THREE** reasons to explain why its average cost decreases. (3 marks)

2017/DSE/1/2(b)

Due to the opening of several new branches, the average cost of production of the restaurant has increased. Explain with **TWO** reasons why this happens. (4 marks)

2018/DSE/1/3

Shenzhen has become China's 'Silicon Valley'. The headquarters of many high technology firms such as Tencent (騰訊), Huawei (華為) and BYD (比亞迪) are located there. Explain **TWO** external economies of scale high technology firms may enjoy in Shenzhen. (4 marks)

2020/DSE/1/2

(c) After the opening of 10 more restaurants, the firm found that its average cost decreased. State **TWO** possible reasons for this. (2 marks)

MARKING SCHEME

1990/CE/II/22 B	1993/CE/II/21 C	2000/CE/II/17 B	2006/CE/II/18 D (72%)	2016/DSE/II/07 B (52%)
1991/CE/II/20 D	1995/CE/II/22 B	2004/CE/II/20 D (63%)	2008/CE/II/17 D (38%)	2018/DSE/II/12 A (51%)
1992/CE/II/20 D	1998/CE/II/13 A	2005/CE/II/18 B (58%)	2013/DSE/II/05 C (71%)	2020/DSE/II/7 B

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1992/CE/II/1(b)
It enjoys economies of scale (1)
- purchasing economy: bulk purchase of spare parts at a discount
- financial economy: lower cost of borrowing due to goodwill / sufficient collateral
- technical economy: fully utilize machines and spare parts (i.e. less than proportionate of part and components are kept for maintenance purpose) (3@, max: 4)
[Mere listing of points without elaboration – max. 2 marks. Mark the FIRST TWO points only.]

1993/CE/II/1(c)
(i) Long run, because (1)
all factors are variable / the scale of production is enlarged because the employment of all factors is increased. (2)
(ii) - economies of scale (without explanation) (1)
- management economy: increased productivity due to greater scope of specialization (3)
- technical economy: fully utilize machines e.g. a van for delivery service (3)
- purchasing economy: bulk purchase of food materials at a greater discount (3)
(max: 6)
[Mere listing of points without elaboration – max. 2 marks. Mark the FIRST TWO points only.]

1995/CE/II/10(a)(ii)
- the set up cost required for two shows is the same as that for one (2)
- management economies: the expertise required for two shows is the same as that for one (i.e. the payment to such professionals as designers and accountants can be spread over a larger output.) (2)
- marketing economies: the advertising fee for marketing two shows is the same as that for one (i.e. the advertising fee can be spread over a larger output.) (2)
- purchasing economies: purchase of materials required at a bigger discount than that for one show (2)
(2@, max: 4)
[Mark the FIRST TWO points only.]

1997/CE/II/9(a)
Elaboration of the following points in relation to KCRC:
- technical economies: fully utilize plants and equipment, such as maintenance depots
- financial economies of scale: borrow at a lower interest rate due to more collaterals
- managerial economies of scale: increased productivity due to greater scope of specialization
- purchasing economies of scale: bulk purchase of new trains, parts and consumables, etc. at a greater discount
- research and development economies: spreading R&D cost over a larger output (2@, max: 4)
[Mark the FIRST TWO points only.]
[Remark: Mere mention of the term 'economies of scale' without elaboration – max: 1 mark.]

2000/CE/II/10(b)(i)
Horizontal integration, because (1)
they are doing the same or similar businesses (1)

Elaboration of 3 of the following:
- financial economies of scale: borrow at a lower interest rate due to more collaterals
- managerial economies of scale: increased productivity due to greater scope of specialization
- purchasing economies of scale: bulk purchase of stationary, printing service (leaflet), etc. at a greater discount
- research and development economies: spreading R&D cost over a larger output (2@, max: 6)
[Mark the FIRST THREE points only.]

2004/CE/II/1(c)(i)
Name 2 relevant economies of scale with elaboration.
- marketing economies of scale: bulk purchase at lower cost, etc
- technical economies of scale: a fuller use of the plants and equipment
- managerial economies of scale: a wider scope for specialization
- financial economies of scale: easier to raise capital and at a lower interest rate (2@, max: 4)
[Remark: Mark the FIRST TWO points only.]

2007/CE/II/1
- management: higher productivity due to a greater scope for specialization / due to benefits from management expertise
- technical: fuller use of resources and facilities / elimination of duplication of resources
- financing: more flexible to raise funds / borrow from banks at a lower interest rate
- purchasing: bulk purchase of raw materials with discount
- marketing: can spread the advertising cost over a larger output
- research and development: can spread the R&D cost over a larger output (2@, max: 6)
[Mark the FIRST THREE points only.]

- Technical economies of scale:	Large firms can utilize more fully the machines and plant equipment and thus reduce the average cost.
- Managerial economies of scale:	A large firm with a wider scope of specialization can raise efficiency and reduce the average cost.
- Financial economies of scale:	Large firms can obtain capital at a lower cost, e.g., borrow from a bank at a lower interest rate.
- Marketing economies of scale in purchasing materials:	Buying raw materials in bulk helps to obtain discounts in the purchase and results in a decrease in average cost.
- Marketing economies of scale in advertising:	As the advertising cost and the cost of providing extra service to customers spread over a larger output, the average cost also decreases.
- Risk diversification:	Large firms can reduce risk by diversification of markets / sources of raw materials.
- Research and development:	Large firms can afford to do research and development say, for new production techniques, to reduce the average cost.

(2@, max: 4)

[Mark the FIRST TWO points only.]

2010/CE/1/9(a)

When the firm is larger in scale, it may enjoy the following economies of scale.

- Financial economies:	Obtaining capital at a lower cost, e.g., borrow from a bank at a lower interest rate.
- Managerial economies:	A wider scope of specialization can raise efficiency and reduce the average cost.
- Technical economies:	When the output is larger, machines can be utilized more fully and efficiently and reduce the average cost.
- Marketing economies of scale in purchasing materials:	Buying raw materials in bulk helps to obtain discounts in the purchase and result in a decrease in average cost.
- Marketing economies of scale in advertising:	Spreading the advertising cost and the cost of providing extra service to customers over a larger output can reduce the average cost.
- Research and development:	Spreading research expenses over a larger output can reduce the average cost.
- Risk bearing:	With more and varied attractions, it can spread risk by diversification of markets / sources of raw materials.

(2@, max: 4)

[Mark the FIRST TWO points only.]

2015/DSE/11/2(b)

- reduce cost of marketing and promotion
- reduce transportation cost for suppliers
- more related businesses available such as accessories and repair

(2@, max: 4)

[Mark the FIRST TWO points only.]

2016/DSE/11/2(c)

- cost of advertising shared by a larger number of students
- bulk purchase of raw material in production
- more extensive division of labour

(1@, max: 3)

2017/DSE/11/2(b)

- may have become too large in scale, so managerial efficiency starts declining
- may have large outstanding loans, so the marginal cost (interest rate) of further borrowing increases
- market may have saturated, leading to a rise in the marketing cost

(2@, max: 4)

[Mark the FIRST TWO points only.]

2018/DSE/11/3

- reduction of marketing and promotion costs, because the region would attract more customers for high-technology products/services.
- reduction of transportation cost, because transport network and other infrastructures would develop more quickly, thus improving accessibility.
- reduction of average/marginal cost of recruiting more experienced and skilled workers, because more of these workers would be attracted to the region.

(2@, max: 4)

[Mark the FIRST TWO points only.]

2020/DSE/11/2

- c. Financial economies of scale
- Technical economies of scale
- Marketing economies of scale
- Management economies of scale
- Purchasing economies of scale (2 marks)

3.4 SHORT RUN OR LONG RUN?

Multiple Choice Questions

1994/CE/11/22

A producer increases all his input to double the output. He finds that the total production cost increases by 80%. This can be explained by

- A. the law of supply.
- B. the law of diminishing returns.
- C. economies of scale.
- D. diseconomies of scale.

1996/CE/11/24

No. of machines	No. of workers	Total output
5	7	100
5	8	120
5	9	150
5	10	200

Refer to the above table. Which of the following is a possible reason for the increase in total output?

- A. division of labour
- B. the law of diminishing returns
- C. the law of comparative advantage
- D. economies of scale

1997/CE/11/15

During the busy season before Christmas, a factory increases the number of workers to increase output. The result is shown below:

No. of workers	Total product (Units)
21	210
22	242
23	276
24	300
25	310

The change in output can be explained by

- A. the law of diminishing returns.
- B. diseconomies of scale.
- C. (out of syllabus)
- D. (out of syllabus)

2000/CE/11/16

Number of machines	Number of workers	Total output (units)
3	3	90
3	4	160
3	5	250
3	6	360

The above data refer to a _____ situation in which _____.

- A. short run the law of diminishing returns applies
- B. short run the law of diminishing returns does not apply
- C. long run economies of scale exist
- D. long run diseconomies of scale exist

2001/CE/11/17

The table below shows the production of Good X in a firm. Only two inputs are required in the production process.

Capital (Units)	Labour (Units)	Total Output (units)	Total Cost (\$)
1	1	20	100
2	2	35	200
3	3	45	300
4	4	50	400

From the above data,

- A. the law of diminishing marginal returns applies to the firm.
- B. the firm enjoys economies of scale.
- C. diseconomies of scale exist for the firm.
- D. the firm produces at its optimal scale of production.

2005/CE/11/19

The table below shows the production of Good X in a firm. Only two inputs are required in the production process.

Capital (Units)	Number of Workers	Average working hours of workers per day	Total Output
2	10	10	5 000
2	10	9	4 900
2	10	8	4 700
2	10	7	4 400

Due to a fall in market demand, the firm reduces the output by cutting the working hours of the workers from 10 hours a day to 8 hours a day.

Based on the above information, we can conclude that

- A. the supply of Good X by the firm decreases.
- B. the amount of labour employed by the firm remains constant.
- C. the law of diminishing marginal returns applies to the firm.
- D. the firm enjoys economies of scale.

2006/CE/11/19

A producer increases all his inputs to double the output. The following table shows the change in average cost after a change in output.

Total Output (Units)	Average Cost (\$)
10 000	6
20 000	7

Based on the above information, we can conclude that

- A. the firm enjoys economies of scale.
- B. the firm suffers from diseconomies of scale.
- C. the law of diminishing marginal returns applies to the firm.
- D. the firm produces at the optimal scale of production.

2007/CE/11/19

The input-output relationship of Firm A is as follows :

Capital (units)	Labour (units)	Marginal output (units)
1	10	10
1	11	9
1	12	8
1	13	7

From the above table, we can conclude that, as the labour input increases

- A. total output is increasing.
- B. average output is increasing.
- C. firm A is experiencing diseconomies of scale.
- D. the average cost of production is decreasing.

2008/CE/11/18

When a firm expands production by only employing more labour,

- A. the wage rate of its workers will increase.
- B. the average productivity of its workers will increase.
- C. the firm will enjoy economies of scale.
- D. the marginal product of its workers will eventually decrease.

2009/CE/11/19

Refer to the following information about the inputs, outputs and average cost of a firm. The only inputs required for production are capital and labour.

Capital (units)	Labour (units)	Total output (units)	Average cost (\$)
500	5	3 000	3
1 000	10	4 500	4
1 500	15	5 500	5

Within the above range of output, we can conclude that

- A. the firm is producing at the optimal scale of production.
- B. the law of diminishing marginal returns applies to the firm.
- C. the firm does not have a comparative advantage in the production of this good.
- D. the firm suffers from diseconomies of scale.

2013/DSE/1/03

The following shows the cost-output relationship of a firm.

Output (units)	0	1	2	3	4	5
Total cost (\$)	10	28	42	52	60	72

Based on the above table, we can conclude that

- A. the firm enjoys the benefits of economies of scale.
- B. the firm's optimal scale of production is 5 units of outputs.
- C. the average variable cost is increasing.
- D. the total fixed cost is \$10.

2013/DSE/1/04

Machines (unit)	Labour (unit)	Average Product (unit)
2	3	30
2	4	40
2	5	50
2	6	55

The above table shows a _____ situation in which _____.

- A. short run the law of diminishing returns does not apply
- B. short run the law of diminishing returns applies
- C. long run economies of scale exists
- D. long run diseconomies of scale exists

2019/DSE/1/05

The following table shows the production data of a firm. The only inputs required are capital and labour.

Capital (units)	Labour (units)	Total product (units)	Total cost of production (\$)
2	2	10	100
3	3	30	270
4	4	45	360
5	5	55	385

Based on the above table, we can conclude that

- A. the law of diminishing returns applies to the firm.
- B. the total fixed cost is \$100.
- C. the optimal scale is 45 units.
- D. the firm enjoys economies of scale.

2020/DSE/1/8

The following table shows the production plan of a firm which employs two factors only, namely labour and machinery.

Machinery (units)	Labour (units)	Average product of labour (units)
4	1	20
4	2	21
4	3	22
4	4	X

If the above data illustrate the law of diminishing marginal returns, the value of X _____.

- A. can be 23
- B. can be smaller than 22
- C. must be larger than 22
- D. must be smaller than 22

Short & Structured Questions

1993/CE/1/1(b)

Yummy Yummy is a fast food shop. With more customers, 'Yummy Yummy' had to employ more workers to increase the output. However, with its existing facilities and equipment, the shop could not further increase the output by employing more workers when the number of workers had reached a certain level.

Name and state the economic law which explains the above situation.

(5 marks)

MARKING SCHEME

1994/CE/1/22 C	2006/CE/1/16 B	2096/CE/1/19 B (55%)	2009/CE/1/19 D (66%)	2019/DSE/1/05 D
1996/CE/1/24 A	2001/CE/1/17 C	2007/CE/1/19 A (42%)	2015/DSE/1/03 D (45%)	2020/DSE/1/ D
1997/CE/1/15 A	2005/CE/1/19 C	2008/CE/1/18 D (78%)	2015/DSE/1/04 B (82%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1993/CE/1/1(b)

Law of diminishing (marginal) returns

(2)

The law states that as more variable factors are added (successively) to the fixed factors, marginal output will (eventually) diminish.

(3)

3.5 PROFIT MAXIMISATION

Multiple Choice Questions

1987/AL/1/05

When economists say that a competitive firm faces a perfectly elastic demand curve, they mean

- A. the firm will sell an infinite quantity of output at the going price.
- B. the law of demand is rejected.
- C. all variations in output the firm can make will leave the price unaffected.
- D. the good is not a necessity because the quantity demanded will be zero at a higher price.

1987/AL/1/25

Suppose in a price-taking industry, the market price of a product is \$6. A firm is producing output at the point where the average total cost equals the marginal cost, both of which are \$8. The average variable cost is \$5. In order to maximize wealth, the firm will

- A. keep on producing but reduce its output.
- B. produce zero output.
- C. leave its output unchanged.
- D. increase its selling price.

1992/AL/1/25

The imposition of a lump-sum tax on each firm in a price-takers' market will

- A. decrease the number of firms in the market.
- B. increase the output of each firm that remains in business.
- C. increase the market price of the output.
- D. All of the above.

1995/AL/1/10

Under competitive market equilibrium, all firms will have the same

- A. marginal cost of production.
- B. total cost of production.
- C. profit.
- D. level of output

1998/AL/1/29

The demand curve facing a price-taker is perfectly elastic. This implies that

- A. the market price will not change.
- B. the law of demand cannot be applied in the price-takers' industry.
- C. the market price will not decrease even when a seller increases his output.
- D. All of the above.

2001/AL/1/29

Which of the following comes closest to a product sold in a price-takers' market?

- A. jade
- B. gold
- C. diamond.
- D. pearl

2004/AL/1/12

A firm is said to be a price-taker if

- A. it has the same cost curves as other competing firms.
- B. it cannot alone decide on its output level.
- C. it cannot ask a price higher than the market price and expect to survive.
- D. It receives no profit.

2012/DS E/1/09

Refer to the following table showing the production costs of a price-taking firm.

Total Output (units)	Marginal cost (\$)	Average variable cost (\$)	Fixed cost (\$)
2	4	3	1
3	6	4	1
4	8	5	1
5	10	6	1
6	12	7	1

If the product price is \$6,

- A. the firm will produce 5 units of output to maximize its profit.
- B. the maximum profit the firm can make is \$5.
- C. the average variable cost is \$5 when the firm maximizes its profit.
- D. the minimum total cost of the firm is \$13.

2014/DS E/1/06

The following table shows the cost-output relationship of a price taker.

Output (units)	Total cost (\$)
1	20
2	45
3	75
4	110
5	150

Given that the profit maximizing output of the firm is 3 units. If the fixed cost increases by \$5, the price of the good and the output will be _____ and _____ respectively.

- A. \$ 25 2 units
- B. \$ 30 2 units
- C. \$ 30 3 units
- D. \$ 75 3 units

2015/DS E/1/05

The schedule below shows the marginal cost of a firm in a perfectly competitive market.

Output (units)	3	4	5	6	7	8	9
Marginal cost (\$)	5	5.5	6	6.5	7	8	9.5

Suppose the rental of the machine hired, a fixed cost, increased by \$2 while the marginal cost for each unit of the output is reduced by \$0.5. As a result, the profit-maximising output of the firm _____ while the profit of the firm _____.

- A. increases decreases
- B. increases may increase or decrease
- C. decreases decreases
- D. decreases may increase or decrease

2016/DSE/1/12

The following table shows the cost-output relationship of a price-taker.

Output (units)	Average cost (\$)
2	20
3	21
4	22
5	23
6	24
7	25

Suppose the market price is \$25. What are the profit-maximising output and profit respectively?

- A. 4 units and \$0
- B. 4 units and \$12
- C. 7 units and \$0
- D. 7 units and \$12

2017/DSE/1/08

The following table shows the cost-output relationship of a price-taker.

Output (units)	Average cost (\$)
5	10
6	11
7	12
8	13
9	14

The market price is \$20. Suppose the average cost has increased by \$2 for every unit of output. The profit of the firm will

- A. increase by \$16
- B. increase by \$14
- C. decrease by \$16
- D. decrease by \$14

2018/DSE/1/06

The following table shows the cost-output relationship of a profit-maximising firm. The firm has a fixed cost of \$5.

Output (units)	1	2	3	4	5	6
Average cost (\$)	7	6	7	8	9.6	12

Which of the following statements is correct?

- A. The optimal scale of production is 2 units.
- B. There exist diseconomies of scale after the third unit of output is produced.
- C. If the market price is \$8, the output is 4 units.
- D. If the market price is \$9, the profit is \$6.

2019/DSE/1/10

The following table shows the cost-output relationship of a price-taking firm.

Total output (units)	Average cost (\$)
3	10
4	15
5	20
6	25
7	30

If the profit-maximising output is 6 units, the market price will be _____.

- A. \$5
- B. \$25
- C. \$30
- D. \$39

2020/DSE/1/9

Refer to the following table about the cost-output relationship of a profit-maximising firm.

Quantity (units)	1	2	3	4	5
Average cost (\$)	5	6	7	8	9

If the average cost of every unit of output decreases by \$1 and the market price is \$8.

- A. the minimum cost of production is \$12.
- B. the profit maximising output is 3 units.
- C. the maximum profit is \$10.
- D. the marginal cost of every unit of output will remain unchanged.

Short & Structured Questions

SP/DSE/11/9(c)

Assume the market of electronic watches is perfectly competitive.

Suppose there is an improvement in technology that lowers the marginal cost of producing electronic watches. The schedule below shows the marginal costs of a firm which produces electronic watches before and after the technological improvement.

Output (Units)	Marginal cost (\$) <i>before</i> the technological improvement	Marginal cost (\$) <i>after</i> the technological improvement
500	70	60
600	80	70
700	90	80
800	10	90
900	110	10

- (i) Is marginal cost a fixed cost or a variable cost? Explain. (2 marks)
- (ii) Suppose the market price of electronic watches was \$80 before the technological improvement. What is the output of the firm at this market price? (1 mark)
- (iii) Suppose the market price of electronic watches fell to \$70 after the technological improvement. What is the output of the firm at this market price? (1 mark)

If the fixed cost of a price-taking firm decreases by \$200 and the marginal cost of each unit of output increases by \$10, the profit-maximising output will _____ and the profit _____.

- A. increase will decrease
 B. increase may increase or decrease
 C. decrease will increase
 D. decrease may increase or decrease

MARKING SCHEME

1987/AL/T/05 C	1995/AL/T/10 A	2004/AL/T/12 C (86%)	2015/DSE/T/05 B (73%)	2018/DSE/T/06 D (42%)
1987/AL/T/25 A	1998/AL/T/29 C	2012/DSE/T/09 B (39%)	2016/DSE/T/12 B (76%)	2019/DSE/T/04 D
1992/AL/T/25 D	2001/AL/T/29 B	2014/DSE/T/06 C (56%)	2017/DSE/T/08 D (55%)	2019/DSE/T/10 D

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2020/DSE/T/9
B

SP/DSE/11/9(c)

- (i) It is a variable cost because it increases with output. (1)
(1)
- (ii) 600 units (1)
- (iii) 600 units (1)

SECTION 4: OWNERSHIP & EXPANSION OF FIRMS

4.1 PUBLIC ENTREPRISES

Multiple Choice Questions

1991/CE/II/13

Which of the following statements is true about the public utilities in Hong Kong?

- A. All public utilities are government-owned.
- B. The setting up of public utilities requires government franchises.
- C. The government has imposed a maximum limit on profits on all public utilities.
- D. In return for a franchise, a public utility is regulated by the government.

1991/CE/II/14

Which of the following is a possible consequence when government-run car parks become privately run? In these car parks, there will be

- A. greater efficiency in management.
- B. more car theft.
- C. less frequent changes in parking fees.
- D. shorter business hours.

1992/CE/II/19

Which of the following is an advantage of Tate's Cairn Tunnel (大老山隧道) being run by the private sector rather than by the government?

- A. The private firm has more freedom in staff management.
- B. Management by the private firm helps to ease traffic congestion.
- C. The private firm charges users a lower price than the government would charge.
- D. The private firm pays a lower interest rate on its loans than the government would have to pay.

1993/CE/II/12

Which of the following is true about the post office in Hong Kong?

- A. It is a kind of capital.
- B. It is granted a franchise by the government.
- C. It faces no competition in providing its services.
- D. It pays dividends to its employees whenever there is a profit.

1993/CE/II/17

In Hong Kong, a public radio broadcasting company enjoys the following advantage over a private radio broadcasting company:

- A. lower production costs
- B. priority in obtaining world news
- C. a more extensive division of labour
- D. the ability to deal more easily with financial difficulties

Short & Structured Questions

1993/CE/1/3(a)

The Mass Transit Railway Corporation (MTRC) is a public corporation.

- (i) Who owns a public corporation? (2 marks)
- (ii) From the view point of society, give **TWO** advantages a public corporation has over a government department and **ONE** advantage it has over a private firm. Answer the question with reference to the MTRC. (6 marks)

(Note: In year 2000, the MTRC was privatized and has since then become a listed company.)

2017/DSE/II/10(b)

MTR Corporation Limited (stock code: 66) provides railway services in Hong Kong.

Some politicians suggest that the government should buy back the shares of MTR so that the company would become wholly owned by the government. Discuss the suggestion by giving **ONE** argument **FOR** and **ONE** argument **AGAINST** it. (4 marks)

2019/DSE/II/3

Give **ONE** example of public corporation in Hong Kong. With reference to your example, state **TWO** advantages of providing the service by a public corporation instead of a private enterprise. (3 marks)

MARKING SCHEME

1991/CE/II/13 D 1991/CE/II/14 A 1992/CE/II/19 A 1993/CE/II/12 A 1993/CE/II/17 D

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1993/CE/II/3(a)
(i) The government (2)

(ii) Advantages over a government department
- profit motive
- more flexible operation e.g. less red-tape
- higher incentive to lower production cost / efficient use of employees
- better control of employees
- more responsive to consumers' demand
- more innovative e.g. stored valued ticket (2@, max: 4)
[Mark the FIRST TWO points only.]

Advantages over a private firm:
- sound financial structure (financially backed up by the government) / lower interest on loans borrowed (with government as guarantor)
- better overall planning / co-ordination of transportation services
- government may receive dividend from the corporation (2@, max: 2)
[Mark the FIRST point only.]

2017/DSE/II/10(b)
Arguments supporting the suggestion:
- Government will have a better control of the train fare, and it can freely reduce the fare to relieve the burden of the passengers
- If MTR is fully owned and supported by the government, that would make it easier for MTR to get loans to fund its operation or investment. (2@, max: 2)

Arguments opposing the suggestion:
- It may lower the efficiency of MTR's management and reduce its sensitivity to market (price) signals.
- The money involved in the purchase of MTR is substantial. The government may have better alternative uses of the money, such as education and medical services. (2@, max: 2)
[Mark the FIRST point only.]

2019/DSE/II/3

Examples:
- HK Airport Authority
- Hong Kong Export Credit Insurance Corporation
- any other relevant example
[Mark the FIRST point only.]

Advantages:
- easier to get information about the general public from the government for decision-making
- can provide stable service with a lower price
- easier to get loan with the backup of the government
- any other relevant point } @1
[Mark the FIRST TWO points only.] } max: 2

4.2 SOLE PROPRIETORSHIPS & PARTNERSHIPS

1990/CE/II/12
The advantages of sole-proprietorship include

- (1) limited liability
- (2) flexibility in decision making
- (3) a high degree of division of labour
- (4) more personal contact with customers

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1990/CE/II/21
Mr. Chan was one of the owners of a trading firm which recently went bankrupt. The court then took over his personal property. To what kind of business ownership did this trading firm belong?

- A. sole-proprietorship
- B. partnership
- C. private limited company
- D. public limited company

1991/CE/II/15
Which of the following is an advantage of a partnership over a sole proprietorship?

- A. a stronger incentive for efficiency.
- B. more flexibility in making management decisions.
- C. a wider range of abilities and talents in management.
- D. limited liability to all partners.

1993/CE/II/09
Peter and Joan form a general partnership. Which of the following is true?

- A. One of them enjoys limited liability.
- B. Peter and Joan share the profits, if any, equally.
- C. If Peter borrows money in the name of the partnership, Joan is also liable for this debt.
- D. Peter can transfer his ownership in the partnership without Joan's agreement.

1993/CE/II/09
Which of the following is a feature of a general partnership?

- A. Only the sleeping partners enjoy limited liability
- B. The business will be dissolved on the death of any one partner
- C. All partners enjoy an equal share of the firm's profit
- D. The consent of the majority of partners is needed for the transfer of shares

1999/CE/II/17

Mr Lee is medical doctor and manages a clinic. He is responsible for the loss in excess of the capital he has contributed to the firm. The firm is a _____ and Mr Lee is a _____.

- (1) sole proprietorship sole proprietor
- (2) partnership general partner
- (3) (out of syllabus)

- A. (1) only
- B. (2) only
- C. (1) or (2)
- D. (2) or (3)

1999/CE/II/18

John, Andy and Sammi form a general partnership. Which of the following is true?

- A. They share profit equally.
- B. They can transfer their ownership freely without the consent of other partners.
- C. They have to bear unlimited liability
- D. They have to disclose the financial conditions of the partnership.

1999/CE/II/21

Partnership _____ than sole proprietorship.

- A. has more capital
- B. is a less risky type of ownership
- C. enjoys more economies of scale
- D. has less flexibility in decision making

2000/CE/II/20

Mr Wong and Mr Chan have formed a partnership. Which of the following statements is correct?

- A. They enjoy limited liability.
- B. The transfer of ownership does not need the other partner's consent.
- C. Each of them is responsible for the business decisions of the other.
- D. The accounts of the partnership have to be disclosed to the public

2001/CE/II/22

Mr Lee is a private medical doctor. He wants to expand his business. He can raise funds by

- (1) borrowing from banks.
- (2) inviting partners to form a general partnership.
- (3) forming a private limited company and issuing shares.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2005/CE/II/22

Which of the following is an advantage of general partnership over sole proprietorship?

- A. The owners enjoy limited liability.
- B. It has a wider source of capital.
- C. The risk of running the business is lower.
- D. There is no need to disclose its financial accounts to the public.

2009/CE/II/21

Mr. Lee, a sole proprietor, expands his business by forming a general partnership with Mr. Chan. As a result,

- A. their liability to the firm is confined to their investment in the firm.
- B. they have to share profits equally.
- C. each of them has to be responsible for the business decisions of his partner.
- D. they can issue shares to raise capital.

2014/DSE/II/08

Which of the following statements about partnership and sole proprietorship is correct?

- A. Partnership has better continuity than sole proprietorship.
- B. Partnership has less flexibility in decision making than sole proprietorship.
- C. Partnership has more capital than sole proprietorship.
- D. Partnership enjoys more economies of scale than sole proprietorship.

Short & Structured Questions

1995/CE/II/1

李、周、林律師行 Lee, Chau, Lam & Co., Solicitors
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To what type of business ownership does the above firm belong? List **THREE** features of this type of business ownership. (4 marks)

1995/CE/II/11(c)

Many small property agencies in Hong Kong register as sole proprietorships rather than limited companies. Give **THREE** advantages of a sole proprietorship compared to a limited company. (6 marks)

1998/CE/II/9(b)

The restaurant is general partnership. Explain **TWO** advantages of a general partnership over a sole proprietorship. (4 marks)

2018/DSE/II/2(a)

Last year, Peter operated a sole proprietorship. Recently he invited Paul and Mary to form a partnership to expand the business to other markets. Suggest **TWO** reasons why Peter switched his firm's form of business ownership for expansion. (2 marks)

MARKING SCHEME

1990/CE/11/12 C	1993/CE/11/09 C	1999/CE/11/18 C	2001/CE/11/22 A	2014/DSE/1/08 B (74%)
1990/CE/11/21 B	1993/CE/11/09 B	1999/CE/11/21 D	2005/CE/11/22 B (80%)	
1991/CE/11/15 C	1999/CE/11/17 C	2000/CE/11/20 C	2009/CE/11/21 C (32%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1995/CE/11
(General) partnership (1)
- 2 to 20 partners
- unlimited liability / each partner is fully liable for the firm's debts
- death and bankruptcy of a partner will lead to dissolution of the partnership
- act by one partner binds all other partners
- difficult to admit or withdraw partners
- financial statements need not be publicly disclosed (1@, max: 3)
[Mark the **FIRST THREE** features only.]

1995/CE/11/1(c)
- low set up cost
- easy to set up and dissolve, so suitable to business with sudden ups and downs
- lower profits tax rates
- low accounting cost (2@, max: 6)
[Mark the **FIRST THREE** points only.]

1998/CE/11/9(b)
- wider source of capital
- better division of labour among owners (wider scope of specialization)
- risk and cost can be shared among partners (2@, max: 4)
[Mark the **FIRST TWO** points only.]

2018/DSE/11/2(a)
- Peter wants to invite more investors to get new funds for expansion of his business. (1)
- Peter can make use of different expertise from Paul and Mary in the new markets. (1)

4.3 LIMITED COMPANIES

Multiple Choice Questions

1990/CE/11/07
Which characteristic listed below applies to all limited companies?
A. The company can own assets in its name.
B. All shares are quoted on the Stock Exchange.
C. Shareholders are free to sell their shares to anyone they choose.
D. (out of syllabus)

1991/CE/11/16
Which of the following is regarded as an advantage for a private limited company to go public?

- A. Shareholders enjoy limited liability.
- B. There is separation of ownership and management.
- C. There is wider scope for raising capital.
- D. Shares become transferable.

1993/CE/11/10
The Bank of Credit and Commerce Hong Kong Limited (BCC HK) was a private limited company. When it was closed in 1991,

- A. the shareholders could avoid losses by selling their shares on the stock market.
- B. the government took over the bank under the Banking Ordinance.
- C. the depositors had the right to claim their money after the shareholders.
- D. the losses of the shareholders were limited to their investment in the bank.

1993/CE/11/13
One of the advantages of a private limited company 'going public' is:

- A. limited liability
- B. more access to funds
- C. being subject to a lower profits tax rate
- D. being less likely to be taken over by another company

1994/CE/11/24
A limited company is a legal entity. This implies that

- A. the company must obey the law
- B. the company may sue other persons in its own name.
- C. management and ownership of the company are separated
- D. its shares can be quoted on the stock exchange.

1994/CE/11/25
A public limited company differs from a private limited company in that, for example,

- A. there is no legal maximum limit on the number of shareholders.
- B. Its shareholders enjoy limited liability
- C. (out of syllabus)
- D. It is subject to a higher profits tax rate.

1995/CE/II/24

It is possible for a shareholder to sue his company because

- A. a company enjoys limited liability.
- B. a company is a legal entity.
- C. a company is managed by a broad of directors.
- D. of the separation of management and ownership.

1995/CE/II/25

A public limited company has more advantages in raising capital over a private limited company because the former.

- A. is owned by the government but the latter is not.
- B. has more directors.
- C. can issue shares to the general public but the latter can't.
- D. has a larger scale of production.

1996/CE/II/57

Which of the following about the stocks and shares issued by the public limited companies in Hong Kong is INCORRECT?

- A. All of them are traded in the Stock Exchange of Hong Kong.
- B. They facilitate the raising of capital of firms.
- C. They provide opportunities for small investors to invest.
- D. Their prices reflect the earning power of the companies.

1997/CE/II/16

If a listed company is converted into a private limited company,

- A. it can avoid being controlled by the government.
- B. its firm size will be reduced.
- C. it can reduce the risk of being taken over.
- D. it loses the status of legal entity.

1999/CE/II/22

Which of the following is an advantage of a public limited company over a private limited company?

- A. a wider source of capital
- B. larger economies of scale
- C. a better specialization in management
- D. large number of shareholders.

2000/CE/II/21

Which of the following are advantage of turning a private limited company into a listed company in the stock market?

- (1) The company gains the status of a legal entity.
- (2) The company enjoys economies of scale.
- (3) The company enjoys a wider source of capital.
- (4) Ownership of the company can be transferred freely in the market.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

2001/CE/II/18

	Firm A	Firm B
Legal Status	Legal Entity	Legal Entity
Liability	Limited	Limited
Transfer of ownership	Does not need the consent of other owner(s)	Needs the consent of other owner(s)

Refer to the above table. Which of the following is correct?

- A. Firm A has more capital than Firm B.
- B. Firm A has a greater risk of being taken over by another firm than Firm B.
- C. Firm A is listed company but Firm B is not.
- D. Both firms have to disclose their financial statements to the public.

2002/CE/II/21

If a private limited company in Hong Kong is turned into a public limited company,

- A. the company will pay the profits tax at a higher rate.
- B. the company will gain the status of a legal entity.
- C. the company will have a wider source of capital.
- D. the original owners must increase their investments in the company.

2003/CE/II/19

Mr Chan is one of the owners of a firm which is a legal entity. Moreover, the transfer of Mr Chan's ownership in the firm needs the consent of other owners. The firm is a

- A. general partnership.
- B. limited partnership.
- C. private limited company.
- D. public limited company.

2005/CE/II/20

If a listed public limited company is turned into a private limited company in Hong Kong,

- A. the company will be at a lower risk of being taken over.
- B. the company will pay the profits tax at a lower rate.
- C. the company will lose its legal entity.
- D. the shareholders will bear unlimited liability.

2006/CE/II/20

Angel, Bonnie and Catherine jointly own a firm. The firm is a legal entity. Which of the following statements about the firm must be correct?

- A. The firm can issue shares to raise capital.
- B. At least one of the owners has to bear unlimited liability.
- C. The firm will be dissolved on the death of any one owner.
- D. The accounts of the firm have to be disclosed to the public.

2007/CE/II/22

Which of the following about a public limited company is correct?

- A. The company can be a shareholder of a listed company.
- B. The shares issued by the company are traded on a stock exchange.
- C. The maximum number of shareholders is 50.
- D. It earns greater returns than a private limited company.

2008/CE/11/20

In 2006, the Bank of Communications (交通銀行) quoted its shares on the Hong Kong Stock Exchange. A result of this was that

- A. the Bank became a legal entity in Hong Kong.
- B. the Bank can raise capital more easily in Hong Kong.
- C. owners of the Bank enjoy limited liability.
- D. ownership and management of the Bank can be separated.

2009/CE/11/23

After the 2008 stock market crash, some listed companies in Hong Kong proposed privatizing their companies. If a listed company is privatized and turns into a private limited company,

- A. the company is not a legal entity any more.
- B. the firm's size will be reduced.
- C. the company can enjoy a lower profits tax rate.
- D. the risks of being taken over will be reduced.

2010/CE/11/22

Which one of the following statements about a private limited company is correct?

- A. The shares issued by the company are traded on the stock market.
- B. The transfer of ownership needs the consent of other shareholders.
- C. It has to disclose its financial information to the public.
- D. It is subject to a lower profits tax rate than a public limited company.

2012/DSE/1/09

If a partnership is turned into a private limited company,

- (1) the company will become an independent legal entity.
- (2) the company will be at a higher risk of being taken over.
- (3) the company will pay a higher profits tax rate.
- (4) the number of owners will increase.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2015/DSE/1/07

A firm has an independent legal entity but the owners cannot transfer their ownership without the consent of the other owners. When the owners want to expand the firm's business, they can _____.

- (1) use the retained profit of the firm
- (2) issue shares to the public to raise capital
- (3) borrow from friends to raise capital

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1990/CE/11/14

Who will receive the repayment first when a company liquidates?

- A. ordinary shareholders
- B. (out of syllabus)
- C. directors
- D. debenture-holders

1992/CE/11/18

On the liquidation of a public limited company, which of the following parties will get their money back before the others?

- A. the shareholders
- B. the debenture-holders
- C. the government
- D. the employees of the company

1993/CE/11/03

Mr. Chan has purchased some shares in a public limited company. Which of the following statements is correct?

- A. He cannot participate in the management of the firm.
- B. He will automatically receive a dividend from the company every year.
- C. His personal accounts have to be disclosed to the public.
- D. His ownership in the company is freely transferable.

1993/CE/11/07

From the viewpoint of a public limited company, which of the following is an advantage of issuing debentures over issuing shares to raise capital?

- A. The company can raise more capital.
- B. The existing shareholders have a better control of ownership of the company.
- C. The company can pay less to debenture holders than to shareholders when its profit is small.
- D. It is easier to obtain more bank loans if the company issues more debentures rather than more shares.

1993/CE/11/19

What is the economic role of shareholders in a public limited company?

- A. preparing the company's accounts
- B. making production decisions
- C. bearing risk
- D. sharing profits

1996/CE/11/20

When a public limited company liquidates, which of the following will be the last one to have the right to claim repayment from the company?

- A. ordinary shareholders
- B. (out of syllabus)
- C. debenture holders
- D. employees

1996/CE/II/21

The shareholders of a public limited company is different from the debenture holders of the company in that

- A. the return of shareholders is lower.
- B. the return of shareholders is more stable.
- C. shareholders have a prior claim on the income of the company.
- D. shareholders are owners of the company while debenture holders are not.

1997/CE/II/18

Which of the following sources of finance would most probably reduce the controlling power of the existing shareholders of a public limited company?

- A. a new issue of ordinary shares to the public (out of syllabus)
- B. a new issue of debentures to the public
- C. a short term loan borrowed from a bank

1998/CE/II/18

Being a small investor, Peter prefers to be a shareholder of a public limited company rather than of a private limited company. This is because

- A. he can enjoy limited liability.
- B. the transfer of ownership is easier.
- C. shareholders have the right to sue the company
- D. there is no legal maximum limit on the number of shareholders of a public limited company.

2002/CE/II/17

Which of the following statements about limited companies in Hong Kong is correct?

- A. Shareholders and debenture holders have to bear unlimited liability.
- B. Issuing more debentures will increase the risk of being taken over.
- C. Shares and debentures of public limited companies are traded on the stock exchange.
- D. Debenture holders can claim the company's assets prior to shareholders when the company goes bankrupt.

2002/CE/II/18

As a small investor, Calvin prefers to purchase the shares of a listed company rather than those of a private limited company in Hong Kong because

- A. the accounts of a listed company have to be audited by certified accountants.
- B. there is a separation between ownership and management in a listed company.
- C. the shares of a listed company are freely transferable on the stock market.
- D. the liability of the shareholders of a listed company is limited to their investment in the company.

2003/CE/II/22

From the viewpoint of investors, which of the following is an advantage of buying debentures over the purchase of shares?

- A. The return of debentures is higher.
- B. Debentures can be sold on the stock exchange while shares cannot.
- C. The market price of debentures is fixed.
- D. Debenture holders have a prior right to get their money back from the company if it liquidates.

2004/CE/II/23

The debentures issued by a listed company _____ be traded on the securities market. The company has to pay the interest to debenture holders _____ the dividends to shareholders.

- A. can before
- B. can after
- C. cannot before
- D. cannot after

2005/CE/II/21

Which of the following descriptions about the shareholders and bondholders of a company is correct?

- A. Ordinary shareholders have a higher return than the bondholders.
- B. (out of syllabus)
- C. Ordinary shareholders are the creditors of the company.
- D. When the company winds up, the bondholders have a right to get the money back from the company in advance of its shareholders.

2006/CE/II/22

From the viewpoint of the company, which of the following is an advantage of issuing ordinary shares over bonds to raise capital?

- A. The company can raise more capital.
- B. The company has the obligation to redeem the bonds but not the ordinary shares.
- C. The ordinary shares can be freely transferable on the stock market.
- D. The liability of the shareholders is confined to the amount they have invested in the company.

2007/CE/II/21

From the viewpoint of the existing shareholders of a listed company, which of the following is an advantage of issuing bonds over ordinary shares to raise funds for future development?

- A. Their power of control over the company will not be diluted.
- B. The interest paid to the debenture holders is lower than the dividend.
- C. The company need not pay interest to the debenture holders when it incurs a loss.
- D. The debenture holders have no right to sue the company, whereas the shareholders do have the right.

2008/CE/II/21

Which of the following methods of raising capital will dilute the controlling power of existing shareholders in a listed company

- A. borrowing from a deposit-taking company
- B. issuing debentures
- C. (out of syllabus)
- D. issuing ordinary shares

2009/CE/II/20

When a public limited company is liquidated, among the ordinary shareholders, preference shareholders, debenture holders, and employees of the company, _____ the have the first priority to claim back _____.

- A. ordinary shareholders the money they invested in the company
- B. (out of syllabus)
- C. debenture holders the money they loaned to the company
- D. employees their salaries in arrears

2009/CE/1/22

From the viewpoint of investors, which of the following is an advantage of buying ordinary shares over debentures?

- A. The return of ordinary shares is higher than that of debentures.
- B. The market price of ordinary shares may increase while that of debentures is fixed.
- C. Ordinary shareholders invest in the company at a lower risk than debenture holders.
- D. Ordinary shareholders have voting rights in annual general meetings while debenture holders do not.

2010/CE/1/23

Which one of the following statements about the ordinary shareholders of a limited company is correct?

- A. They are the creditors of the company.
- B. They have voting rights in the Board of Directors' meetings.
- C. They receive dividends at a rate that is not fixed.
- D. They receive dividends at a higher rate than the preference shareholders.

2014/DSE/1/07

A public limited company plans to issue new bonds for expansion. For the existing shareholders, which of the following is an advantage of issuing bonds instead of shares?

- A. The accounts of the company need not be disclosed to the public.
- B. They have priority in getting back their capital if the company liquidates.
- C. The interest paid to the bondholders is lower than the dividend paid to the shareholders.
- D. Their power of control over the company will not be diluted.

2017/DSE/1/06

The government launched the Silver Bond for Hong Kong residents aged 65 or above. Bondholders will be paid interest at a rate linked to inflation in Hong Kong, subject to a minimum rate of 2% per year. Bondholders may sell their bonds at original price to the government before maturity.

Which of the following statements about the Silver Bond is/are correct?

- (1) The risk of holding the Silver Bond is lower than that of the shares of a listed company.
 - (2) The return of the Silver Bond would increase during inflation while the return of the shares of a listed company would not.
 - (3) The interest received by Silver Bond holders is higher than the dividend received by the shareholders of a listed company.
- A. (1) only
 - B. (2) only
 - C. (3) only
 - D. (1), (2) and (3)

2019/DSE/1/07

New World China Land Limited (Stock Code: 0917) announced privatisation of the company and cancelled its listing status at the Hong Kong Stock Exchange.

Which of the following are the possible advantages of the above change?

- (1) The company can choose not to disclose its financial accounts to the public.
 - (2) The company can reduce the risk of being taken over.
 - (3) The company can enjoy a lower profits tax rate.
- A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

Some small investors prefer debentures to shares. Which of the following is a possible reason for that?

- A. The return of debentures is generally higher than that of shares.
- B. The price of shares may rise while that of debentures is fixed.
- C. Shareholders need to spend time managing the company but debenture holders do not.
- D. Companies have obligation to redeem debentures but they have no such obligation for shares.

Short & Structured Questions

1992/CE/1/3(c)(ii)
HSBC is a public limited company. Give **THREE** features of this type of business organization as distinct from a private limited company. (6 marks)

1996/CE/1/3(a)
Share prices of Vitasoy International Holdings Limited (維他奶國際集團有限公司) fell because some of its products were found to be contaminated and were destroyed.

Name the type of ownership of this firm. Explain **TWO** advantages of this type of ownership. (5 marks)

2001/CE/1/11(c)
Explain **TWO** advantages of a public limited company over a private limited company. (4 marks)

2002/CE/1/4
What is meant by limited liability? (2 marks)

2004/CE/1/4
State **THREE** features of a public limited company that distinguish it from a private limited company in Hong Kong. (3 marks)

2005/CE/1/3(a)
The following Hong Kong stock market information is extracted from a newspaper on a certain day.

Code	Telecommunication Company	Closing price of shares (\$)
0331	China Resources Peoples	0.290
0315	Smartone	\$ 700
0008	PCCW	4.925

Name the type of ownership of the above telecommunication companies. Give **TWO** advantages and **TWO** disadvantages to the owners of this type of ownership over sole proprietorship. (5 marks)

2009/CE/1/2
In 2007, the HKSAR Government bought a quantity of the shares in the Hong Kong Exchanges and Clearing Limited (HKEX) on the stock exchange. To what type of business ownership does the HKEX belong? List **TWO** features of this type of business ownership. (3 marks)

2012/DSE/II/12(b)
Chinachem Group is one of the property developers in Hong Kong. Unlike other major developers, Chinachem Group does not list its shares on the stock market. State **TWO** advantages and **TWO** disadvantages of being a private limited company instead of a listed company. (4 marks)

2014/DSE/II/10
Goodbaby International (Hong Kong stock code: 1086) is the largest manufacturer and supplier of infants' and children's products in China.

(c) To what type of business ownership does Goodbaby International belong? (1 mark)

(d) Explain the differences between partnership and the type of ownership in (c) in terms of

- (i) transfer of ownership.
- (ii) legal status. (4 marks)

(e) Source 2 below is an extract from a newspaper article.

Addressing the potential threat brought about by the trends of the birth rate and old dependency ratio in China, government officials are considering relaxing the one-child policy in an effort to boost the birth rate.

#The policy restricts urban couples to only one child, while allowing additional children in several cases, including twins, rural couples, ethnic minorities, and couples who are both the only child in their respective families.

WITHOUT using a diagram, explain why the stock price of Goodbaby International increased after the information in Source 2 was published in newspapers. (4 marks)

2015/DSE/II/11(a)
McDonald's is a private limited company in Hong Kong. State **ONE** advantage and **ONE** disadvantage of forming a private limited company over forming a public limited company. (2 marks)

2016/DSE/II/2(a)
Sure-Star Education Group is a tutorial centre for secondary school students. The Group can issue shares and bonds to the general public to raise capital.

Name the type of business ownership of the Group. (1 mark)

2017/DSE/II/10(a)
MTR Corporation Limited (stock code: 66) provides railway services in Hong Kong.

MTR is a listed company. State **TWO** differences between such an ownership and a private limited company. (2 marks)

1994/CE/1/4
Compare the return of an ordinary shareholder of a bank with that of a time deposit holder. (6 marks)

1999/CE/1/4
In order to raise capital for expansion, a limited company is considering whether to issue new shares or debentures. From the viewpoint of the company, give **ONE** advantage and **ONE** disadvantage of issuing shares over debentures. (4 marks)

2001/CE/1/10(c)(ii)
State **TWO** advantages to Bank A of issuing shares over debentures for raising capital. (2 marks)

2012/DSE/II/10(a)(ii)
Mr. Chan considers investing the \$6000 either in shares or bonds issued by a listed company. Explain with **TWO** reasons why bonds could be a better choice than shares for Mr. Chan. (4 marks)

MARKING SCHEME

1990/CE/11/07 A	1999/CE/11/22 A	2010/CE/11/22 B (78%)	1997/CE/11/18 A	2009/CE/11/20 D (29%)
1991/CE/11/16 C	2000/CE/11/21 D	2012/DSE/11/09 B (39%)	1998/CE/11/18 B	2009/CE/11/22 D (61%)
1993/CE/11/10 D	2001/CE/11/18 B	2015/DSE/11/07 B (74%)	2002/CE/11/17 D (59%)	2010/CE/11/23 C (55%)
1993/CE/11/13 B	2002/CE/11/21 C (82%)	1990/CE/11/14 D	2002/CE/11/18 C (76%)	2014/DSE/11/07 D (71%)
1994/CE/11/24 B	2003/CE/11/19 C (60%)	1992/CE/11/18 C	2003/CE/11/22 D (73%)	2017/DSE/11/06 A (84%)
1994/CE/11/25 A	2005/CE/11/20 A (67%)	1993/CE/11/03 D	2004/CE/11/23 A (65%)	2019/DSE/11/07 A
1995/CE/11/24 B	2006/CE/11/20 A (41%)	1995/CE/11/07 B	2005/CE/11/21 D (74%)	2020/DSE/11/04 D
1995/CE/11/25 C	2007/CE/11/22 A (29%)	1993/CE/11/19 C	2006/CE/11/22 B (51%)	
1996/CE/11/57 A	2008/CE/11/20 B (75%)	1996/CE/11/20 A	2007/CE/11/21 A (64%)	
1997/CE/11/16 C	2009/CE/11/23 D (70%)	1996/CE/11/21 D	2008/CE/11/21 D (69%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1992/CE/11/3(c)(ii)
- shares are freely transferable
- no upper limit on the number of shareholders
- financial accounts needed to be disclosed to the public
- can apply for listing in the stock market
- can raise fund from the public by issuing debentures
[Mark the FIRST THREE points only.] (2@, max: 6)

1996/CE/11/3(a)
Public limited company (1)

Advantages:
- limited liability: loss of an owner of the firm is confined to his investment in the firm. / lower risk in investment
- legal entity: the firm can act as a legal person to make contracts, to own properties and be sued. / profit or loss belongs to the firm, not the owners.
- Wider source of capital: can issue shares to the public.
- Easy transfer of shares: an investor can convert his shares into cash with ease.
- Professionals to run the business (separation of ownership and management and economies of scale)
- Lasting continuity: the firm's existence not affected by any investor's death withdrawal, etc.
[Mark the FIRST TWO points only.] (2@, max: 4)

2001/CE/11/1(c)
- wider source of capital because capital can be raised from the public
- shares are freely transferable, approval of the Board of Directors is not required
- wider scope of specialization (2@, max: 4)
[Mark the FIRST TWO points only.]

2002/CE/11/4
The liability of an owner of a firm is confined to the amount of his investment in the firm. (2)

2004/CE/11/4
- no upper limit of the number of shareholders
- free transfer of shares
- wider source of capital / can invite the public to be shareholders
- financial accounts are open to the public
[Remark: Mark the FIRST THREE points only.] (1@, max: 3)

2005/CE/11/3(a)
Public limited company. (1)

Advantages:
- wider source of capital
- limited liability
- legal entity
- shares freely transferable
- continuity of business
[Mark the FIRST TWO points only.] (1@, max: 2)

Disadvantages:
- financial accounts disclosed to the public
- higher profits tax rate
- higher risk of being taken over
- complicated set-up procedure
[Mark the FIRST TWO points only.] (1@, max: 2)

2009/CE/11/2
Public limited company (1)

- independent legal status
- limited liability
- separation of ownership and management
- lasting continuity
- shares are freely transferrable
- issue shares to the public
- no upper limit on the number of shareholders
- required by law to disclose its financial status
[Mark the FIRST TWO points only.] (2@, max: 4)

2012/DSE/11/12(b)
Advantages:
- tighter control of ownership / more difficult to be taken over (1)
- no need to disclose the accounting information to public (1)

Disadvantages:
- cannot issue shares to general public to raise capital (1)
- difficult to transfer its ownership (1)

- 2014/DSE/II/10
(c) Public limited company / listed company. (1)
- (d) (i) In a partnership, any given owner cannot transfer his/her shares of ownership without the consent of other partners while in a public limited company, the shares are freely transferable. (2)
- (ii) A partnership does not have independent legal status while a public limited company has an independent legal status. (2)
- (e) People expected the birth rate to rise, resulting in an expected increase in future demand for the baby products. (1)
So Goodbaby International was expected to earn bigger profits and to distribute more dividends to its shareholders in the future. (2)
The expected increase in future dividends would raise the demand for the company's shares and thus its stock price. (1)

2015/DSE/II/11(a)
Advantage:
- lower risk of being taken over
- no need to disclose accounting information to the public (1@, max: 1)

Disadvantage:
- owners cannot freely transfer their stocks
- the firm cannot raise capital by issuing stocks to the general public (1@, max: 1)
[Mark the FIRST point only.]

2016/DSE/II/2(a)
Public limited company / listed company. (1)

2017/DSE/II/10(a)
- Shares of a listed company are freely transferrable while shares of a private limited company are not.
- A listed company is required to disclose its accounting information to the public while a private limited company is not.
- A listed company can issue shares and bonds to the general public while a private limited company cannot. (1@, max: 2)
[Mark the FIRST TWO points only.]

1994/CE/1/4

	Time deposit holder	Ordinary shareholder	
Name of return:	interest	dividends	(2)
Rate of return:	fixed rate	variable	(2)
Whether the return depends on the bank's business performance:	no	yes	(2)

1999/CE/1/4
Advantage:
- no interest burden / no redemption obligation (2)

Disadvantage:
- easier to be taken over (2)

2001/CE/1/10(c)(ii)
- no interest burden (1)
- no redemption obligation (1)

2012/DSE/II/10(a)(ii)
He can get interest return even if the company does not make any profit that year (2)
Higher priority of getting paid than shareholders if the company is liquidated. (2)

4.4 COMPARING DIFFERENT FORMS OF OWNERSHIP

Multiple Choice Questions

1995/CE/II/23
Fanny and Estella are the only owners of a firm. They must obtain the other's consent before they can transfer their ownership to other people. Besides, their liability to the firm is confined to their individual investment in the firm. Based on this information, the firm is a

- A. (out of syllabus)
B. general partnership.
C. private limited company.
D. public limited company.

1996/CE/II/17
Which of the following are the advantages of turning a sole-proprietorship into a private limited company?

- (1) greater flexibility in decision-making
(2) wider sources of capital
(3) higher incentive to work
(4) limited liability

- A. (1) and (2) only
B. (1) and (3) only
C. (2) and (4) only
D. (3) and (4) only

1997/CE/II/19
Refer to the following information concerning Firm A and Firm B:

	Firm A	Firm B
Number of owners	6	7
Transfer of ownership	need the consent of other owners	need the consent of other owners
Legal status of the firm	legal entity	not a legal entity

The type of ownership of Firm A and Firm B is _____ and _____ respectively.

- A. public limited company private limited company
B. private limited company partnership
C. partnership private limited company
D. public limited company partnership

1997/CE/II/58
Mr. Wai solely owns a restaurant in Tai Po and his wife runs the business for him. As compared to a public limited company, the type of ownership of the restaurant has the following advantages EXCEPT

- A. making prompt decision on management.
B. paying profits tax at a lower tax rate.
C. separation of ownership and management.
D. not having to disclose the financial status to the public.

1998/CE/11/20

Study the following card issued by the ABC Cake Shop.

<p>ABC Cake Shop promises to give the holder of this card on demand ONE DOZEN ASSORTED CAKES</p>

The cake shop claims that it will keep the promise forever.

Now suppose the cake shop liquidates and cannot repay its debts to the cardholders. By law, the cake shop owner(s) need not keep the promise mentioned above if it is a

- A. sole proprietorship.
- B. general partnership.
- C. (out of syllabus)
- D. limited company.

2002/CE/11/19

Amy is an owner of a firm. Her liability to the firm is confined to her investment in the firm and she can transfer her ownership to anyone else without the consent of other owners.

Based on the above information, the firm is a

- A. general partnership.
- B. (out of syllabus)
- C. private limited company.
- D. public limited company.

2005/CE/11/23

Study the following information about firm A and firm B.

	Firm A	Firm B
Number of owners	2	12
Transfer of ownership	freely transferable	needs the consent of other owners
Liability	limited	unlimited

According to the above information, Firm A is a _____ and Firm B is a _____.

- A. public limited company private limited company
- B. private limited company partnership
- C. partnership private limited company
- D. public limited company partnership

2006/CE/11/21

If the owners of a firm have the right to sue their firm but they cannot transfer their ownership freely without the consent of other owners, the firm is a

- A. general partnership.
- B. (out of syllabus)
- C. private limited company.
- D. public limited company.

2007/CE/11/20

Which of the following is a possible reason for turning a partnership into a private limited company?

- A. The owners will make more profit
- B. The owners will enjoy limited liability.
- C. It will ensure the financial privacy of the firm.
- D. Ownership of the firm can be transferred without the consent of other owners.

2008/CE/11/19

	Firm A	Firm B
Number of owners	3	12
Transfer of ownership	Needs the consent of other owners	Needs the consent of other owners
Legal status	Legal entity	Not a legal entity

According to the above information, which of the following descriptions of Firm A and Firm B in Hong Kong is correct?

- A. All owners of Firm A are legally bound by other owners' business decisions while those of Firm B are not.
- B. Firm A has to disclose its financial statement to the public while Firm B need not.
- C. Firm A is subject to a higher profits tax rate than Firm B.
- D. Firm A has a higher risk of being taken over by other firms than Firm B.

2012/DSE/1/08

	Firm A	Firm B
Number of owners	2	10
Transfer of ownership	Needs the consent of other owners	Needs the consent of other owners
Continuity	Continues to exist when one of the owners goes bankrupt	Will be dissolved when one of the owners goes bankrupt

According to the above table, which of the following descriptions of Firm A and Firm B is correct?

- A. Firm A is at a greater risk of being taken over by another firm than Firm B.
- B. Firm A is a legal entity while Firm B is not.
- C. Both firms are subject to the same profits tax rate.
- D. Firm A is required to disclose its financial status to the public while Firm B is not.

2017/DSE/1/05

Alan and his partners turned their partnership into a private limited company. After the change, the firm will

- A. have more capital for development.
- B. have a lower average production cost.
- C. enjoy a lower profits tax rate.
- D. have a separate legal entity.

2018/DSE/1/07

	Firm X	Firm Y
Number of owners	2	10
Transfer of ownership	the consent of other owners required	the consent of other owners NOT required
Disclosure of financial account to public	NOT required	required

According to the above table, which of the following descriptions of Firm X and Firm Y is correct?

- A. Firm Y earns a higher profit than Firm X.
- B. Firm Y raises more capital than Firm X.
- C. Owners of both firms enjoy limited liability.
- D. Firm Y is a legal entity while Firm X may not be.

Short & Structured Questions

1999/CE/1/10(b)

The government encourages people to start their own business. Suggest **TWO** advantages and **TWO** disadvantages to the owners of businesses in running a partnership over a private limited company. (4 marks)

2003/CE/1/3

John is running a firm with Peter. Since Peter has not been running the firm properly, both of them have had to sell their personal property to cover the firm's debts.

To what type of business ownership does the above firm belong? List **TWO** features of this type of business ownership. (3 marks)

2008/CE/1/4

A public limited company has limited liability while a partnership has not.

(a) What is meant by limited liability? (2 marks)

(b) Explain the difference between the above two types of ownership in terms of

- (i) transfer of ownership.
- (ii) source of raising capital.

(4 marks)

2020/DSE/1/5

if a public limited company in Hong Kong gets listed on the stock exchange.

- A. it will face a higher profits tax rate.
- B. it can no longer keep its accounting information confidential.
- C. its shareholders will enjoy higher liquidity of their assets.
- D. it will enjoy economies of scale.

MARKING SCHEME

1995/CE/1/23 C	1997/CE/1/58 C	2005/CE/1/23 D (65%)	2008/CE/1/19 C (57%)	2018/DSE/1/07 D (69%)
1996/CE/1/17 C	1998/CE/1/20 D	2006/CE/1/21 C (58%)	2012/DSE/1/08 B (77%)	2020/DSE/1/5 C
1997/CE/1/19 B	2002/CE/1/19 D (59%)	2007/CE/1/20 B (77%)	2017/DSE/1/05 D (88%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1999/CE/1/10(b)

Advantages:

- lower tax rate (1)
 - easier to set up / close down (1)
 - less legal constraints in business operation, so save cost in this aspect (1)
- [Mark the **FIRST TWO** points only.]

Disadvantages:

- unlimited liability (1)
 - narrower scope of raising capital (1)
 - lack of continuity (1)
- [Mark the **FIRST TWO** points only.]

2003/CE/1/3

General partnership.

- number of partners ranges from 2 to 20 (1)
 - unlimited liability / each partner is fully liable for the firm's debt
 - all partners are bound by other partners' business decisions
 - difficult to admit or withdraw partners
 - easy to set up and dissolve (1/2, max: 2)
- [Mark the **FIRST TWO** points only.]

2008/CE/1/4

(a) The liability of an owner of the firm is confined to the amount of his investment in the firm. (2)

(b)

	Public limited company	Partnership	
(i) Transfer of ownership	Does not need the consent of other shareholders	Need the consent of other partners	(2)
(ii) Source of capital	Can issue shares and debentures	Cannot issue shares and debentures / borrowing from friends, etc	(2)

4.5 EXPANSION OF FIRMS

Multiple Choice Questions

1990/CE/11/18

Which of the following is an example of lateral integration?

- A. a flour mill combines with a bakery
- B. a jeans factory combines with a swimwear factory
- C. a jewelry manufacturer combines with a noodle factory
- D. a furniture factory combines with a lumbering plant

1991/CE/11/21

Cathay Pacific Airways Ltd. took over Hong Kong Dragon Airlines Ltd. (港龍航空公司). This is an example of

- A. horizontal integration
- B. lateral integration
- C. forward vertical integration
- D. backward vertical integration

1993/CE/11/23

A movie-producing firm acquired a number of theatres to present its own films and films produced by other firms. What are the advantages of this type of integration to the firm?

- (1) The firm can enjoy economies of scale.
- (2) The firm can reduce its risks by diversifying its investment.
- (3) It is easier for the firm to obtain contracts with movie stars.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1993/CE/11/23

Which of the following is an example of lateral expansion of a firm?

- A. A telephone company combines with a telegram company.
- B. A restaurant combines with a supermarket.
- C. A hospital sets up a school to train student nurses.
- D. A furniture company combines with another furniture company.

1994/CE/11/27

A travel agent takes over a real estate firm. What kind of integration is this?

- A. conglomerate integration
- B. lateral integration
- C. vertical integration
- D. horizontal integration

1994/CE/11/28

In Hong Kong, when a commercial bank takes over another commercial bank,

- A. it has greater influence on deposit interest rates.
- B. it is able to diversify risk in its business.
- C. its market share is enlarged.
- D. it will suffer from diseconomies of scale.

1995/CE/11/27

A publisher takes over a bookstore. To the publisher, this is a _____ integration.

- A. conglomerate
- B. forward
- C. backward
- D. lateral

1995/CE/11/28

Which of the following is the greatest benefit from conglomerate integration?

- A. diversification of product
- B. economies of scale
- C. ensuring the markets for its output
- D. larger market share

1997/CE/11/20

When a cake shop takes over a coffee shop, which of the following are correct?

- (1) This can provide an outlet for its products.
- (2) The resources can be better utilized.
- (3) The risk of the business is reduced through diversification.
- (4) The profit will increase

- A. (1), (2) and (3) only
- B. (1), (2) and (4) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

1998/CE/11/19

A famous singer expands his show business by producing stationery with his picture on it. This type of expansion is

- A. horizontal.
- B. forward.
- C. backward.
- D. conglomerate.

1998/CE/11/21

When a shampoo manufacturer introduces a new product – shampoo for children, it aims at

- (1) diversifying its market.
- (2) gaining the economies of scale in marketing.
- (3) ensuring a market outlet for its products.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2000/CE/11/24

A mobile phone company joins hands with a commercial bank. A customer of the bank can handle matters concerning his accounts by using the mobile phone produced by the mobile phone company. Which of the following is least likely a motive of the mobile phone company in this joint venture?

- A. To ensure steady supply of raw materials
- B. To benefit from more efficient use of resources.
- C. To benefit from economies of scale.
- D. To promote goodwill.

2001/CE/11/23

A bus company expands its business and starts to provide ferry services to the outlying islands. This enables the bus company to

- A. diversify the risk of its business.
- B. diversify markets for its product.
- C. enjoy a larger market share.
- D. enjoy technical economies of scale.

2002/CE/11/22

Mrs Chan, a large supplier of frozen beef, opens a chain of beef steak houses. To this supplier,

- (1) the expansion is a vertical forward expansion.
- (2) the risk of running a loss for her whole business will be lower.
- (3) this can ensure a steady market outlet for her frozen beef.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Refer to the following report to answer Questions 23 and 24.

Towngas Avenue is the largest customer service centre for Towngas. Towngas Avenue also sells tableware and glassware and operates an in-store cafe.

2003/CE/11/23

The extension of the business of Towngas to Towngas Avenue is an example of

- A. horizontal expansion.
- B. vertical backward expansion.
- C. vertical forward expansion.
- D. conglomerate expansion.

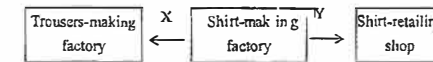
2003/CE/11/24

To Towngas, the extension of the business of Towngas to Towngas Avenue has the advantage of

- A. enjoying technical economies of scale.
- B. ensuring a steady supply of raw materials.
- C. ensuring adequate market outlets.
- D. diversifying production and spreading risk.

2004/CE/11/24

A shirt-making factory has expanded its business as follows:



To the shirt-making factory, the types of expansion shown by X and Y are ____ expansion and ____ expansion respectively.

- A. backward lateral
- B. lateral lateral
- C. backward forward
- D. lateral forward

2005/CE/11/24

Which method of integration can be used by firms to ensure the supply of raw materials?

- A. backward integration
- B. forward integration
- C. conglomerate integration
- D. horizontal integration

2006/CE/11/23

When an international airline company takes over a local airline company, the former has the advantage of

- A. ensuring a steady supply of raw materials.
- B. ensuring a better quality of its service.
- C. enjoying management economies of scale.
- D. avoiding the existence of diseconomies of scale.

The MTR Corporation launched the Octopus Card. It is a smart card system facilitating transactions of small amounts. Answer questions 23 and 24 below:

2007/CE/11/23

To the MTR Corporation, this type of expansion is

- A. horizontal
- B. forward
- C. backward
- D. conglomerate

2007/CE/11/24

Such a type of expansion has the advantage of

- A. technical economies of scale.
- B. increasing the market share of the business.
- C. increasing the profit of the company.
- D. diversifying the risk of business.

A catering company owns many restaurants selling different Chinese foods. Recently, it has opened a new bakery. Which of the following descriptions in questions 22 and 23 concerning the expansion of the catering company are correct?

2008/CE/11/22

The expansion is an example of

- A. borrowing from a deposit-taking company
- B. issuing debentures
- C. issuing preference shares
- D. issuing ordinary shares

2008/CE/11/23

The expansion enables the catering company to

- A. spread the business risk by diversifying the product.
- B. have a greater influence on the market price.
- C. raise the productivity of its workers.
- D. have a more steady supply of raw materials.

2009/CE/11/24

The integration of the MTR Corporation Limited (MTR) and the Kowloon-Canton Railway Corporation (KCR) is an example of _____ with the advantage of _____.

- A. horizontal integration ensuring a steady supply of raw materials for production
- B. vertical integration lowering the production cost
- C. lateral integration economies of scale
- D. conglomerate integration making more efficient use of resources

2010/CE/11/24

When a bakery takes over a flour producing factory, the former has the advantage of

- A. ensuring a market outlet of its products.
- B. enlarging the market share.
- C. ensuring a steady supply of raw materials.
- D. diversifying the market.

2013/DSE/11/08

A firm can ensure a steady supply of raw materials by engaging in _____ while it can increase its market share by engaging in _____.

- A. backward integration ... horizontal integration
- B. backward integration ... lateral integration
- C. forward integration ... horizontal integration
- D. forward integration ... lateral integration

2015/DSE/11/08

759 Store, a local retailer of imported snacks, expands its business to sell cosmetics and skincare products. Which of the following is LEAST likely motive behind the expansion?

- A. To reduce competition
- B. To enjoy economies of scale
- C. To expand its brand name to other products
- D. To spread risk by business diversification

2016/DSE/11/11

Hong Kong Television Network Limited (HKTV) has launched an online shopping platform "HKTV Mall". This expansion

- (1) helps spread business risk.
- (2) ensures a higher profit for the company.
- (3) extends its brand name to other markets.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2017/DSE/11/09

Giordano International Limited is a retailer of casual wear. It has launched the Giordano Ladies, which provides luxury clothes and suits for ladies. It is an example of _____ expansion.

- A. horizontal
- B. vertical
- C. lateral
- D. conglomerate

2018/DSE/11/08

Toridoli Holdings Corporation, a leading company in the restaurant industry in Japan, acquired a Hong Kong noodle chain Tam Chai Yunnan Noodles (譚仔雲南米線). Which of the following is the LEAST likely motive behind the integration?

- A. to secure the supply of factor inputs
- B. to spread risk through product diversification
- C. to enjoy economies of scale
- D. to expand its business to other markets

Short & Structured Questions

1990/CE/11/4(a)(i)

Lei Sun is a garment manufacturing firm wholly owned by Mr Lee. It will be combined with a garment retailing group to form a public limited company. Explain TWO advantages to Lei Sun of combining with a retailing group. (4 marks)

1991/CE/11/5(b)(iv)

If Bank B takes over Bank A, what type of integration is this? Suggest TWO advantages to Bank B of doing this. (7 marks)

1992/CE/11/4(a)

Company A, which owned several factories in Tsuen Wan, was taken over by a local land developer. Company B. Company B decided to redevelop some of the factories into hotels and shopping centres.

- (i) What type of integration is this? (2 marks)
- (ii) Explain TWO advantages of this integration to Company B. (6 marks)

1994/CE/11/9(a)

A truck manufacturer in Japan expands his production to include private cars. Identify this type of expansion and give TWO motives for such an expansion. (5 marks)

2019/DSE/1/09

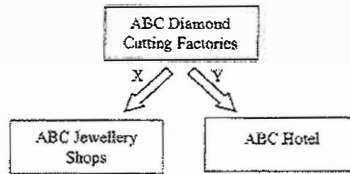
A Hong Kong travel company offers package tours to Japan. It invested in building a hotel, which provides accommodation services to its tour members visiting Japan.

Which of the following is most likely the motive behind the expansion?

- A. to increase the market share
- B. to secure the supply of factor inputs
- C. to ensure a market outlet of its services
- D. to reduce competition

2020/DSE/1/18

ABC Diamond Cutting Factories expand its business as follows:



To ABC Diamond Cutting Factories, the types of expansion shown by X and Y are _____ expansion and _____ expansion respectively.

- A. backward conglomerate
- B. backward lateral
- C. forward conglomerate
- D. forward lateral

Microeconomics by Topic
4. Ownership & Expansion of Firms

1996/CE/1/11(b)

Suppose a newspaper publisher starts to publish a magazine which is to be sold separately.

- (i) What type of expansion is it? Explain your answer. (3 marks)
- (ii) State **TWO** motives for such an expansion. (2 marks)

1998/CE/1/3

A television broadcasting company takes over a film production company. Give **TWO** possible economic motives of the takeover. (4 marks)

1999/CE/1/11(b)

A taxi company merged with a restaurant. Identify the type of integration and explain **TWO** possible motives for this type of integration. (5 marks)

2002/CE/1/11(d)

The tutorial school also publishes textbooks for sale to the public. Give **FOUR** possible motives of such an expansion. (4 marks)

2003/CE/1/9(b)(ii)

Firm A is a local manufacturer in Hong Kong producing goods for export only. Suppose Firm A establishes retail shops to sell its products in Hong Kong. Explain what type of expansion this is and suggest **TWO** possible motives for such a type of expansion. (6 marks)

2006/CE/1/3

When it started, the Walt Disney Company produced cartoon movies only. Later it expanded its business to owning and operating Disneyland theme parks and hotels. Explain what type of expansion this is and state **TWO** possible motives for such a type of expansion. (4 marks)

2010/CE/1/10(b)

Ocean Park Hong Kong is undergoing a major redevelopment plan. In addition, Ocean Park is planning three themed hotels (the Spa Hotel, Ocean Hotel, and Fisherman's Wharf Hotel) in the area for an expected increase in visitors. Name this type of expansion and explain your answer. (2 marks)

2012/DSE/1/3

A telecommunication service provider starts a credit company which offers loans to the public.

- (a) Explain what type of expansion this is. (2 marks)
- (b) List **THREE** possible motives for the above expansion. (3 marks)

2014/DSE/1/4

Tai Fai Lok Group operates a chain restaurant providing Chinese food.

- (a) Tai Fai Lok Group has recently started Fai Lok Institute, which provides professional training for chefs and managers for Chinese restaurants. To what type of expansion does this belong? Explain your answer. (2 marks)
- (b) Explain **TWO** advantages of such an expansion. (4 marks)

2015/DSE/1/9(b)

McDonald's is one of the major fast food chains in Hong Kong. McDonald's has expanded its business by operating McCafé, which sells premium coffee like other coffeehouses such as Starbucks. To which type of expansion does this belong? Explain. (2 marks)

MARKING SCHEME

A beauty queen in Hong Kong, Miss Amy Au, is famous for demonstrating the use of cosmetic products with short videos on social media websites. She also sells Japanese cosmetic products on her website.

- (a) Are the short videos on social media websites public goods or private goods? Explain. (3 marks)
- (b) Apart from Japanese cosmetic products, she starts to sell Korean cosmetic products on her website. To what type of expansion does this belong? Give TWO possible reasons for this type of expansion. (3 marks)

1990/CE/II/18 B	1995/CE/II/27 B	2001/CE/II/23 A	2006/CE/II/23 C (75%)	2010/CE/II/24 C (96%)
1991/CE/II/21 A	1995/CE/II/28 A	2002/CE/II/22 B (33%)	2007/CE/II/23 D (73%)	2013/DSE/II/08 A (82%)
1993/CE/II/23 D	1997/CE/II/20 A	2003/CE/II/23 D (74%)	2007/CE/II/24 D (52%)	2015/DSE/II/08 A (88%)
1993/CE/II/23 A	1998/CE/II/19 D	2003/CE/II/24 D (75%)	2008/CE/II/22 A (72%)	2016/DSE/II/11 B (72%)
1994/CE/II/27 A	1998/CE/II/21 A	2004/CE/II/24 D (77%)	2008/CE/II/23 A (92%)	2017/DSE/II/09 C (57%)
1994/CE/II/28 C	2000/CE/II/24 A	2005/CE/II/24 A (80%)	2009/CE/II/24 C (69%)	2018/DSE/II/08 A (83%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2019/DSE/II/09
B

2020/DSE/II/18
C

1990/CE/II/4(a)(i)

- to secure outlet of product
- easier to obtain information on consumers' preferences
- to enjoy economies of scale
- to build up brand name

[Mark the first 2 points only. Mere listing of points without elaboration - max. 1 mark.]

(2@, max: 4)

1991/CE/II/5(b)(iv)

Horizontal integration

Explanation of two advantages:

- economies of scale
- greater market power
- reduce duplication of facilities

[Mark the FIRST TWO points only.]

(1)

(3@, max: 6)

1992/CE/II/4(a)

(i) Conglomerate integration

- (ii) - more efficient use of the land site
- diversification of production/spread risk
- promotion of goodwill
- economy of scale with reasonable explanation

[More listing of points without elaboration - max. 2 marks. Mark the FIRST TWO points only.]

(3@, max: 6)

2020/DSE/II/2

A chain restaurant providing Chinese cuisine set up a cake shop.

- (a) Explain which type of expansion this was.
- (b) List TWO possible motives for the above expansion.

Microeconomics by Topic
4. Ownership & Expansion of Firms

1994/CE/1/9(a)
Lateral expansion (1)
Motives:
- diversification of product / spread risk
- make use of brand name
- economies of scale (2@, max: 4)
[Mark the FIRST TWO points only.]

1996/CE/1/1(b)
(i) Lateral expansion, because (1)
newspapers and magazines are related products but not necessarily competing with each other. (2)

(ii) - better utilization of resources
- benefits derived from brand name
- diversification of investment / spread risk
- economies of scale (1@, max: 2)
[Mark the FIRST TWO points only.]

1998/CE/1/3
- guarantee stable source of films to be shown on the television
- the television company is able to direct or influence the kind of films to be shot by the film company
- economies of scale illustrated by one appropriate example, e.g. the expertise
- to diversify the television company's risk of investment (2@, max: 4)
[Mark the FIRST TWO points only.]

1999/CE/1/1(b)
Conglomerate integration. (1)
Elaboration of two of the following:
- diversification of products / spread risk
- financial economy of scale
- managerial economy of scale
- marketing economy of scale
- any other relevant point (except technical economy of scale) (2@, max: 4)
[Mark the FIRST TWO points only.]

2002/CE/1/1(d)
- to make use of brand name (1)
- to diversify the business (1)
- to promote its goodwill (1)
- to better utilize its resources / to enjoy economies of scale (1)

2003/CE/1/9(b)(ii)
Vertical forward expansion because (1)
the manufacturer expands to the next stage of production. (1)

- obtaining market information more easily
- ensuring market outlets for its products
- economies of scale, e.g. financial economies of scale
- promote goodwill / make use of brandname (2@, max: 4)
[Mark the FIRST TWO points only.]

Microeconomics by Topic
4. Ownership & Expansion of Firms

2006/CE/1/3
Conglomerate expansion because (1)
movie production and hotel business are two different lines of production. (1)
OR
Lateral expansion because (1)
the products are related but not competitive. (1)

Possible motives of conglomerate expansion or lateral expansion:
- product diversification to spread risk
- making use of brand name to sell another product / promoting goodwill
- more flexible use of resources
- to benefit from economies of scale (1@, max: 2)
[Mark the FIRST TWO points only.]

2010/CE/1/10(b)
Lateral expansion, because (1)
it expands to include a related but not competitive business. (1)
[Remark: No mark will be awarded to this part if the explanation contradicts with the type of expansion.]

2012/DSE/1/3
(a) Conglomerate expansion, because (1)
the firm has expanded into unrelated industries. (1)

(b) Possible motives:
- to have product / income diversification so as to spread risk
- to make use of its brand name of one product in other products
- to use resources more efficiently as the two companies can share some of their resources
- to enjoy economies of scale (e.g. lower average cost of advertising as the total cost can be spread over a larger quantity of output.) (1@, max: 3)
[Mark the FIRST THREE points only.]

2014/DSE/1/4
(a) Vertical backward expansion, because (1)
by starting Fai Lok Institute. Tai Fai Lok Group has expanded its operation to the previous stage of production to control directly the supply of labour inputs (chefs and managers) to its original (food) business. (1)

(b) Advantages
- more steady supply of factor inputs such as chefs and managers
- better use of the brand name
- program can be tailor-made for those graduates from the Institute who are hired to work in the Group's restaurant, so as to shorten their training time. (2@, max: 4)
[Mark the FIRST TWO points only.]

2015/DSE/1/9(b)
Lateral expansion, because (1)
fast food and coffee are related but not directly competitive products. (1)

2019/DSE/1/9
(a) Public good. It is because the videos are non-rivalrous in consumption as people can concurrently watch the video without affecting one another. (3)

(b) Horizontal expansion. (1)

Reasons
- enlarge the market share
- enjoy economies of scale
- make use of the brand name
- any other relevant point
[Mark the FIRST TWO points only.] } @1 max: 2

2 a) Lateral. The integration involve in related industry but not directly competing (2 marks)

b. Economies of scale.

Better use of resources

Diversify of risk

Brand name effect

. any two of the above. (2 marks)

SECTION 5: MARKET STRUCTURE

5.1 PERFECT COMPETITION

Multiple Choice Questions

1994/CE/II/29

Competition in the market will tend to be imperfect when

- (1) customers favour brand names.
 - (2) there are differentiated products.
 - (3) there is free entry into the market.
 - (4) there are numerous sellers.
- A. (1) and (2) only
B. (1) and (3) only
C. (2) and (4) only
D. (3) and (4) only

2000/CE/II/26

Private doctors in Hong Kong charge different price for their medical services. This is because

- A. people do not have sufficient knowledge of their illnesses.
- B. there are many doctors in the market.
- C. the private doctor's service are different.
- D. there are entry barriers to become a doctor.

2002/CE/II/23

Which of the following is a general feature of a perfectly competitive market?

- A. Market information is imperfect.
- B. There is non-price competition.
- C. There is only one price prevailing in the market.
- D. None of the above is a correct answer.

2008/CE/II/24

Which of the following is a feature/are features of a perfectly competitive market?

- A. There is freedom of entry and exit of firms.
- B. The market price of the product is stable.
- C. Sellers use non-price competitions to attract consumers.
- D. All of the above are correct.

Short & Structured Questions

1992/CE/I/1(a)
Suggest **TWO** reasons why the taxi service provided for passengers in Hong Kong is not perfectly competitive. (6 marks)

1995/CE/I/4
Give **TWO** reasons to explain why the laser disc rental shops in Hong Kong are **NOT** operating under perfect competition. (4 marks)

2003/CE/I/4
Give **TWO** characteristics of the market structure under perfect competition. (2 marks)

2004/CE/I/10(d)
Based on the information given in the following advertisements, give **TWO** reasons to explain why the travel agencies industry in Hong Kong is not perfectly competitive. (4 marks)

ABC Travel Ltd. Japan 5-day Deluxe Tour Tokyo (including a ticket for Disneyland) 5 Star Hotels Special Offer : \$5,999	XYZ Travel Ltd. Japan 5-day Leisure Tour Tokyo 4 Star Hotels Special Offer : \$3,999
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2006/CE/I/9(b)
Cosmetics is one of the favourite consumer goods bought by these tourists. There are many retail shops selling cosmetics in Hong Kong. There is keen competition among these shops.

Give **TWO** reasons to explain why the market structure of these retail shops is **NOT** perfect competition. (4 marks)

2007/CE/I/8(c)
Many university students work as part-time private tutors in their spare time. Give **TWO** reasons to explain why the market structure of private tuition in Hong Kong is **NOT** perfect competition. (4 marks)

2013/DSE/II/1
In Hong Kong, there are many travel agencies providing tour groups and booking services for air tickets. Give **TWO** reasons to explain why the market structure of travel agencies in Hong Kong is **NOT** perfect competition. (4 marks)

2018/DSE/II/12(a)
Tourism is one of the 'pillar industries' in Hong Kong.

Source 1: search result from a hotel booking website

Hotel A Tsim Sha Tsui East, Kowloon	☆☆☆☆☆ 30 square metres 2 Twin Beds	Free cancellation	Book now! HK\$2 100 OR RMB¥1 750
Hotel B Tsim Sha Tsui East, Kowloon	☆☆☆☆☆ 32 square metres 2 Twin Beds Free WIFI	Non-refundable	Book now! HK\$2 040 OR RMB¥1 700

With reference to Source 1, give **TWO** reasons to explain why the market structure of Hong Kong's hotel industry is **NOT** perfectly competitive. (4 marks)

1998/CE/I/10(c)
Personal computers of the same type are sold in many shops in Hong Kong at slightly different prices.

(i) Explain with an example why there is such a price difference. (2 marks)

(ii) Identify the market structure of these shops. (1 mark)

2001/CE/I/4
Cans of Coca-Cola are sold at different prices in different shops. Give **TWO** reasons why there is such a price difference. (4 marks)

2009/CE/I/11(c)(ii)
Identical bottles of red wine are sold in different shops at different prices. Give **TWO** reasons to explain why there is such a price difference. (4 marks)

2015/DSE/II/9(c)
The price of a cup of Espresso in McCafé is lower than that in Starbucks. Suggest **TWO** possible reasons to explain why there is such a price difference. (4 marks)

MARKING SCHEME

1994/CE/II/29 A	2000/CE/II/26 C	2002/CE/II/23 C	2008/CE/II/24 A (52%)
<i>Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.</i>			
1992/CE/II/1(a) - heterogeneous service, e.g. 4-seaters and 5-seaters - entry is not free, no. of licences is regulated by the government - drivers and customers may not have perfect knowledge of the market, e.g. while some customers are waiting for taxis, some taxi drivers are looking for customers somewhere else [More listing of points without elaboration – max. 2 marks. Mark the FIRST TWO points only.]			(3@, max: 6)
1995/CE/II/4 - different services or heterogeneous product, e.g. different discs in different shops - imperfect information, e.g. customers may not know well the service of other shops - existence of non-price competition, e.g. free gifts [Mark the FIRST TWO points only.]			(2@, max: 4)
2003/CE/II/4 - many sellers - all firms are price-takers - homogeneous product - perfect information - free entry and exit [Mark the FIRST TWO points only.]			(1@, max: 2)
2004/CE/II/10(d) - differentiated products: different services for the 5-day package - under competition there are different prices (fees) [Remark: Mark the FIRST TWO reasons only.]			(2) (2)
2006/CE/II/9(b) - differentiated products, e.g. different service provided by different shops, ... - different prices / price searching, e.g. different discounts to different customers, ... - imperfect information, e.g. customers do not know the prices of different shops, ... - non-price competition, e.g., gifts given by some shops to their customers, ... [Mark the FIRST TWO points only.]			(2@, max: 4)
2007/CE/II/8(c) - different prices, e.g. not the same tuition fee - heterogeneous products, e.g. different quality of teaching - non-price competition, e.g. advertising in supermarkets - imperfect information, e.g. one may not know who can teach well [Mark the FIRST TWO points only.]			(2@, max: 4)

2013/DSE/II/1 - sellers provide heterogeneous services, e.g. different tour groups. - market information is imperfect, e.g. information about routes and services. - sellers engage in both price and non-price competition, e.g. advertisements. [Mark the FIRST TWO points only.]			(2@, max: 4)
2018/DSE/II/12(a) - sellers provide heterogeneous services, e.g., rooms with different size / features. - market information is imperfect, e.g., information about the quality of services. - price searcher / under competition there are different prices, e.g., different hotels charge different room rates for similar rooms. [Mark the FIRST TWO points only.]			(2@, max: 4)
1998/CE/II/10(c) (i) An appropriate example to illustrate differentiated products or services / imperfect information / different costs of production e.g. different after-sale maintenance services (ii) Monopolistic competition			(2) (1)
2001/CE/II/4 - different products: different services, e.g. some shops sell cans of Coca-Cola 24 hours a day - imperfect information: e.g. about the prices of the product sold in other shops; about the availability of other nearby shops selling the product, etc. - different costs: different rents paid by different shops; discounted cost due to bulk purchase at the wholesale level, etc. [Mark the FIRST TWO points only.]			(2@, max: 4)
2009/CE/II/11(c)(ii) - different services, e.g., only some shops provide the delivery service - imperfect information, e.g., customers do not know which shops sell at a lower price - different production cost, e.g., different rental payments [Mark the FIRST TWO points only.]			(2@, max: 4)
2015/DSE/II/9(c) - lower-quality coffee - lower production cost - less pleasant environment - less attractive brand name [Mark the FIRST TWO points only.]			(2@, max: 4)

4.8 IMPERFECT COMPETITION

Multiple Choice Questions

1990/CE/11/16

China Light and Power Co. Ltd. is a _____ under _____.

- A. public enterprise monopoly
- B. public company monopoly
- C. public corporation oligopoly
- D. public utility oligopoly

1991/CE/11/27

The reasons for classifying the video-renting industry in Hong Kong as monopolistic competition are:

- (1) The entry and exit of firms are restricted.
- (2) The firms engage in non-price competition.
- (3) The services of the firms are not homogenous.
- (4) The firms charge the same price.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1992/CE/11/29

The market structure of gasoline supply in Hong Kong is best classified as

- A. perfect competition
- B. monopolistic competition
- C. oligopoly
- D. monopoly

1993/CE/11/30

In economics, which of the following statements about 'market' is correct?

- A. All buyers and sellers must meet at a physical location for transactions to take place.
- B. Under monopolistic competition, the entry of firms is restricted.
- C. Firms in an oligopolistic market compete in price only.
- D. A perfectly competitive firm cannot influence the market price by itself.

1995/CE/11/29

Which of the following is a general feature of oligopoly?

- A. There is perfect information.
- B. There is price competition only.
- C. There is free entry.
- D. There are only a few sellers who can dominate the market.

1996/CE/11/25

Newspapers in Hong Kong competed among themselves by cutting prices in 1995. This implies that

- A. the total revenue of a newspaper will increase if its demand is inelastic.
- B. the profit of a newspaper will increase if its demand is elastic.
- C. total revenue in the magazine industry will increase because newspaper and magazines are in competitive demand.
- D. the market structure of newspapers is not perfect competition.

1997/CE/11/59

With a number of new firms entering the market of mobile phone services, which of the following would LEAST likely occur?

- A. The price of mobile phone services would decrease
- B. The market share occupied by existing firms would decrease
- C. Firms would engage more in non-price competition
- D. The market would become a perfectly competitive one

1998/CE/11/22

The market structure of the newspaper publishers in Hong Kong is

- A. perfect competition because a particular newspaper is sold at the same price at different places.
- B. monopolistic competition because there are many newspaper stalls.
- C. oligopoly because only a few newspapers have leading market shares.
- D. monopoly because there is no close substitute when the consumer has formed the habit of reading a particular newspaper.

1999/CE/11/23

Before 1999, the international direct dialing service (IDD) in Hong Kong was solely provided by Hong Kong Telecom. Now several other companies also provide this service. As a result, the market structure for IDD has changed from _____ to _____.

- A. monopoly perfect competition
- B. monopoly oligopoly
- C. oligopoly monopolistic competition
- D. monopolistic competition perfect competition

2003/CE/11/49

In Hong Kong, free television broadcasting is provided by Television Broadcasts Limited (TVB) and Asia Television Limited (ATV). Which of the following is NOT correct?

These two companies

- A. are oligopolists.
- B. operate under franchise.
- C. broadcast television programmes which are economic goods.
- D. engage in non-price competition only.

2004/CE/11/25

The market structure of petroleum companies (e.g. Esso, Caltex) in Hong Kong could be regarded as oligopolistic because

- A. in making decisions these companies have to consider the reactions of other dominant companies in the industry.
- B. the total sales revenue of the market is equally shared by these companies.
- C. these companies are selling homogeneous products.
- D. the information about their products can be obtained at zero cost.

2006/CE/11/24

A market can be regarded as an oligopoly when

- A. information in the market is not perfect.
- B. a few sellers have a significantly larger market share than the others.
- C. the products sold in the market are daily necessities.
- D. the government controls the entry of sellers into the market.

2009/CE/11/25

The market structure of pay TV services (such as New TV and Cable TV) in Hong Kong is classified as

- A. monopoly.
- B. oligopoly.
- C. monopolistic competition.
- D. perfect competition.

2010/CE/11/25

The market structure of Internet service providers (e. g. PCCW and i-Cable) could be regarded as _____ and one feature of this market structure is that _____.

- A. monopolistic competition there is imperfect information about their services
- B. monopolistic competition they engage in both price and non-price competition
- C. oligopoly their services are homogeneous
- D. oligopoly they will consider the response of other providers when making decisions

2014/DSE/1/17

The table below shows the distribution of market share of supermarkets in Hong Kong in 2012.

Name	Market share (%)
Wellcome	39.8
Parkshop	33.1
Vanguard	7.8
Others	19.3
Total	100

From the above table, we can conclude that the market of supermarkets in Hong Kong is an example of _____ because _____.

- A. oligopoly sellers are interdependent in their marketing strategies
- B. oligopoly a few major sellers are in control of the total sales of the market
- C. monopolistic competition sellers can affect the market price as their products are heterogeneous from the consumers' viewpoint
- D. monopolistic competition there are many sellers adopting non-price competition in the market

2015/DSE/1/20

Which of the following statements about the theme park industry in Hong Kong is correct?

- A. Hong Kong Disneyland is a monopolist because its average cost of production drops when there are more tourists.
- B. Hong Kong Disneyland guarantees a profit because it is protected by the government.
- C. Hong Kong Disneyland and Ocean Park Hong Kong have no competition with each other as tourists may go to both theme parks.
- D. Hong Kong Disneyland and Ocean Park Hong Kong are interdependent in their marketing strategies.

2017/DSE/1/19

Which of the following statements about monopolistic competition are correct?

- (1) There can be a few or many buyers and sellers in the market.
- (2) The sellers are price searchers.
- (3) The goods and services provided by the sellers are homogeneous.
- (4) There are free entry and exit in the market.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2018/DSE/1/21

Sony's PS4 was responsible for \$17.8 billion of sales value, or 51% share of the global console hardware market, compared with Microsoft's Xbox One at \$9.1 billion of sales value or a 26% market share. Nintendo's 3DS platform (and its variants, such as the 2DS) was a distant third on the list with \$2.6 billion of sales value or 8% share of the market.

The market structure of the above global console hardware market is oligopoly. This statement is

- A. correct because the companies sell heterogeneous goods in the market.
- B. correct because there are a few dominating companies in the market.
- C. incorrect because the PS4 was only responsible for 51% of the market.
- D. incorrect because there are a lot of sellers in the global market.

1992/CE/11/56

Which of the following is NOT a reason why there is only one firm supplying coal gas in Hong Kong?

- A. The firm is granted a franchise by the Hong Kong government.
- B. The firm enjoys economies of scale in production.
- C. It is costly for a new firm to construct a new underground pipeline network..
- D. It is difficult for a new firm to capture a sufficient share of the market.

1993/CE/11/22

Which of the following statements about a monopolist is true?

- A. It has a high set-up cost.
- B. It sells only one type of product.
- C. It is regulated by the government.
- D. There are no close substitutes of its product.

1994/CE/11/30

Which of the following statements about China Light and Power Company Limited is correct?

- A. It is an oligopoly because there are two competing electricity companies in Hong Kong.
- B. It is an oligopoly because there will be a new nuclear power station in Daya Bay.
- C. It is a natural monopoly because it enjoys economies of scale.
- D. It is a franchised monopoly because the government grants an exclusive right for its running.

1996/CE/11/58

Which of the following is NOT a difference between monopoly and perfect competition?

- A. Advertisements are found in monopoly but not in perfect competition.
- B. Firms are free to enter a perfectly competitive market but not a monopoly.
- C. A monopolist can influence the market price while a competitive firm cannot.
- D. Monopolists make greater profits than perfectly competitive firms.

2000/CE/11/25

Which of the following about a monopoly is correct?

- A. Its product has no substitutes as it is the only seller of the product of the kind.
- B. A monopolist still faces non-price competition.
- C. A monopolist can increase the price without losing any customers.
- D. Any business granted a franchise by the government is a monopoly.

2001/CE/11/24

Many people say that the MTR Corporation Limited is a monopolist. Which of the following about the company is correct?

- A. The demand for its product is perfectly inelastic.
- B. It still has to face competition.
- C. It does not need to advertise its product.
- D. It is sure to make profits as it is the only supplier.

2005/CE/11/25

Which of the following descriptions about monopoly is correct?

- A. A monopolist must possess a franchise to run the business.
- B. A monopolist faces no competition.
- C. A monopolist may incur losses.
- D. A monopolist sells only one product.

2007/CE/11/25

The Airport Express is the only railway service carrying passengers to the airport in Hong Kong. Which of the following statements about the Airport Express is correct?

- A. It would surely make a profit since it is the sole supplier of airport railway services.
- B. It does not need to promote its business through advertising.
- C. It can increase its price without losing any customers.
- D. It has to face competition in the market from other transport services to the airport.

2008/CE/11/25

The market structure of the electricity supply on Hong Kong Island is regarded as a/an

- A. monopoly because the government controls the entry of suppliers in the market.
- B. oligopoly because there are two electricity companies in Hong Kong.
- C. monopoly because there is only one supplier.
- D. oligopoly because the supplier is a price searcher.

2012/DSE/1/18

If a firm is a monopolist in a market,

- A. its monopoly power may come from the government.
- B. its return will be positive.
- C. it faces no competition.
- D. it bears no risk.

2013/DSE/1/17

The market structure of the electric power industry in Hong Kong is

- A. an oligopoly because there are two dominating companies in the market.
- B. an oligopoly because the pricing strategies of the companies are interdependent.
- C. a monopoly because the companies can increase the price without losing customers.
- D. a monopoly because there is only one electric company providing electricity in any district.

2016/DSE/1/20

Which of the following statements about monopoly are correct?

- (1) A monopolist sets the market price.
- (2) A natural monopoly arises when no firms are permitted to enter the market.
- (3) There are substitutes for the products provided by a monopolist.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1990/CE/1/2(c)

The banking industry of Hong Kong can be classified as oligopolistic. Give TWO characteristics of the industry which match this classification. (6 marks)

1991/CE/1/2(c)

The Hong Kong Oxygen and Acetylene Co. Ltd. (香港氧氣有限公司) is the only firm in Hong Kong supplying gases for medical uses.

(i) To which type of market structure does this firm belong? (1 mark)

(ii) Give TWO reasons to explain why the market structure of oxygen supply has not changed over the years. (6 marks)

1993/CE/1/3(b)

Give TWO economic reasons to explain why it is not desirable to have more than one firm supplying the underground railway service in Hong Kong. (6 marks)

1996/CE/1/5

What is the market structure of shops selling sports shoes in Hong Kong? List THREE ways of competition among firms under this market structure. (4 marks)

Which of the following statements about a perfectly competitive market are correct?

- (1) Firms cannot survive if they ask a price higher than the market price.
 (2) There is no entry barrier to the market.
 (3) The profit-maximising condition of the firms is that price equals marginal cost.

- A. (1) and (2) only
 B. (1) and (3) only
 C. (2) and (3) only
 D. (1), (2) and (3)

1997/CE/1/5

Andy wishes to apply for a home mortgage loan from a bank and has collected the following information from a number of banks:

Name of Bank	Lending interest rate (% p.a.)	Maximum repayment period
A	10.00	15 years
B	9.50	15 years
C	9.25	20 years
D	8.50	25 years
E	9.00	25 years

- (a) What is the market structure of home mortgage loans? (1 mark)
 (b) State **TWO** characteristics of this type of market structure which are illustrated in the above table. (2 marks)
 (c) State **TWO** other characteristics of this type of market structure. (2 marks)

1999/CE/1/9(d)

Give **TWO** features of the market structure of supermarkets in Hong Kong. (2 marks)

2000/CE/1/9(c)

What is the market structure of petroleum companies (e.g. Shell, Mobil) in Hong Kong? Explain your answer. (3 marks)

2002/CE/1/5

State **THREE** features of the market structure of stores selling computer hardware in the Golden Computer Centre (高登電腦中心). (3 marks)

2005/CE/1/3(b)

The following Hong Kong stock market information is extracted from a newspaper on a certain day.

Code	Telecommunication Company	Closing price of shares (\$)
0331	China Resources Peoples	0.290
0315	Smartone	8.700
0008	PCCW	4.925

To what type of market structure does the telecommunication industry of Hong Kong belong? State **THREE** features of this type of market structure. (4 marks)

2008/CE/1/3

Nokia, Samsung and Motorola all manufacture mobile phones. What is the market structure of mobile phone manufacturers? State **THREE** features of this type of market structure. (4 marks)

2010/CE/1/4

What is the market structure of mobile phone retailing shops in Hong Kong? State **THREE** features of this type of market structure. (4 marks)

2012/DSE/11/12(a)

Most private housing is constructed by several major property developers in Hong Kong. State the market structure of the private housing market and list **TWO** features of such kind of market structure. (3 marks)

2014/DSE/II/2(c)

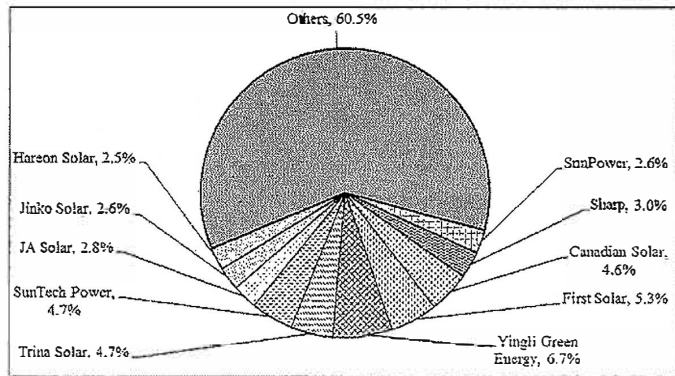
Ah Wing runs a store selling mobile phone accessories in Mong Kok.

Identify the market structure of mobile phone accessories retailers in Hong Kong. Give **TWO** reasons to support your answer. (3 marks)

2016/DSE/II/10(a)

Solar energy becomes an increasingly important energy source in the sunny western provinces, like Gansu and Xinjiang, in China.

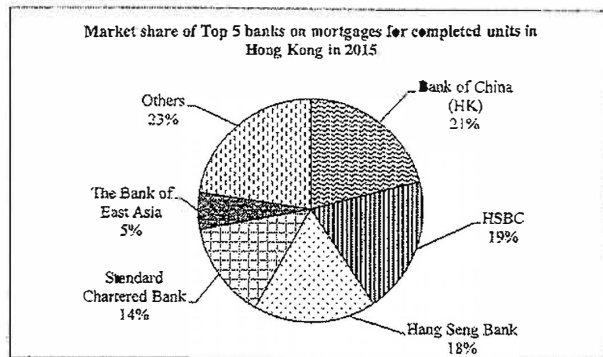
The diagram below shows the market shares of Top 10 solar photovoltaic (PV) module manufacturers in 2012.



What was the market structure of the above solar PV module market? List **TWO** features of this market structure. (3 marks)

2017/DSE/II/3

Refer to the following chart.



What was the market structure of the above market in 2015? List **TWO** features of this market structure. (3 marks)

MARKING SCHEME

1990/CE/II/16 B	1997/CE/II/59 D	2009/CE/II/25 B (81%)	1992/CE/II/56 A	2005/CE/II/25 C (39%)
1991/CE/II/27 C	1998/CE/II/22 C	2010/CE/II/25 D (65%)	1993/CE/II/22 D	2007/CE/II/25 D (83%)
1992/CE/II/29 C	1999/CE/II/23 B	2014/DSE/II/17 B (80%)	1994/CE/II/30 C	2008/CE/II/25 C (55%)
1993/CE/II/30 D	2003/CE/II/49 D (39%)	2015/DSE/II/20 D (88%)	1996/CE/II/58 D	2012/DSE/II/18 A (75%)
1995/CE/II/29 D	2004/CE/II/25 A (58%)	2017/DSE/II/19 D (70%)	2000/CE/II/25 B	2013/DSE/II/17 D (40%)
1996/CE/II/25 D	2006/CE/II/24 B (71%)	2018/DSE/II/21 B (86%)	2001/CE/II/24 B	2016/DSE/II/20 B (26%)

2019/DSE/II/18
D

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/II/2(c)

- a few dominating banks in the market
 - high degree of interdependence
 - restricted entry
 - differentiated services
 - non-price competition e.g. advertising
- [Mark the first 2 points only. Mere mention of points without elaboration on Hong Kong's situation – max. 2 marks.]

(3@, max: 6)

1991/CE/II/2(c)

(i) Monopoly

(1)

(ii) Explanation of two sources of monopoly power:

- natural monopoly (i.e. high set-up cost and economies of scale)
- potential entrants find it difficult to capture a large market share
- limited market size

[Mark the FIRST TWO points only.]

(3@, max: 6)

1993/CE/II/3(b)

- natural monopoly, e.g. economies of scale
- insufficient demand to support more than one MTR
- duplication of tunnels etc. means wastage

[Mere listing of points without elaboration – max: 2 marks. Mark the FIRST TWO points only.]

(3@, max: 6)

1996/CE/II/5

Monopolistic competition

Any three kinds of price or non-price competition:

- price competition (i.e. discounts)
- gifts given by some shops to their customers
- advertising and branding
- differentiated service (e.g. accepting different membership cards)

[Mark the FIRST THREE points only.]

(1@, max: 3)

1997/CE/1/5	
(a) Oligopoly / Monopolistic competition	(1)
(b) - price competition	(1)
- differentiated products	(1)
(c) <u>Monopolistic competition:</u>	
- many sellers	
- other forms of non-price competition	
- free entry	
- imperfect information	(1@, max: 2)
<u>OR</u>	
<u>Oligopoly:</u>	
- a few dominating firms	
- interdependency among competing firms or rivalry	
- other forms of non-price competition	
- imperfect information	
- entry barriers	
[Mark the FIRST TWO points only.]	
[Either monopolistic competition or oligopoly which must match with (a)]	
1998/CE/1/10(c)(ii)	
Monopolistic competition	(1)
1999/CE/1/9(d)	
- a number of sellers / a few dominating firms	
- interdependency	
- free entry and exit	
- differentiated products	
- imperfect information	
- non-price competition	(1@, max: 2)
[Mark the FIRST TWO points only.]	
2000/CE/1/9(c)	
Oligopoly.	(1)
- a few dominating firms	
- interdependence	
- non-price competition	
- price leadership	(1@, max: 2)
2002/CE/1/5	
- many sellers	
- differentiated products	
- easy entry / exit	
- imperfect information	
- price competition	
- non-price competition	(1@, max: 3)
[Mark the FIRST THREE points only.]	

2005/CE/1/3(b)	
Oligopoly	(1)
- a few dominating sellers	
- interdependency	
- non-price competition	
- heterogeneous product	
- entry barriers	
- imperfect information	
- price competition	(1@, max: 3)
[Mark the FIRST THREE features only.]	
2008/CE/1/3	
Oligopoly	(1)
- a few dominating firms	
- price searcher	
- interdependence of policies	
- product can be heterogeneous	
- non-price competition	
- not easy to enter the industry	
- imperfect information	(1@, max: 3)*
[Mark the FIRST THREE points only.]	
[*Remark: Do not mark this part of the answer if the candidate gave a wrong answer such as monopolistic competition to the first part of the answer]	
2010/CE/1/4	
Monopolistic competition	(1)
- many sellers	
- free / easy entry (and exit)	
- heterogeneous / differentiated products	
- imperfect market information	
- non-price competition	
- price searcher	(1@, max: 3)*
[Mark the FIRST THREE features only.]	
[*Remark: No mark will be awarded to this part if the type of market structure is wrongly identified]	
2012/DSE/11/12(a)	
Oligopoly	(1)
- a few dominating firms	
- price searcher	
- interdependence of pricing policies	
- product can be heterogeneous	
- non-price competition	
- not easy to enter the industry	
- imperfect information	(1@, max: 3)
[Mark the FIRST TWO points only.]	
2014/DSE/11/2(c)	
Monopolistic competition	(1)
Reasons:	
- many sellers / no dominant sellers	
- sellers selling heterogeneous products	
- free entry into the market	(1@, max: 2)
[Mark the FIRST TWO points only.]	

2016/DSE/11/10(a)
Monopolistic competition

Features:

- many sellers
- price searchers
- (slightly) differentiated products
- non-price competition
- imperfect market information

[Mark the **FIRST TWO** points only.]

(1)

(1@, max: 2)

2017/DSE/11/3

Oligopoly

Features:

- several dominant firms
- entry barrier
- interdependent pricing strategies
- imperfect market information

[Mark the **FIRST TWO** features only.]

(1)

(1@, max: 2)

SECTION 6: DEMAND AND SUPPLY (I)

6.1 THE LAW OF DEMAND

Multiple Choice Questions

1995/CE/11/06

Lane Crawford
50% discount on all items!

This method of sales promotion can be explained by

- A. the law of supply.
- B. economies of scale.
- C. the law of demand.
- D. the principle of comparative advantage.

1997/CE/11/07

Support the government raised the water charge in January 1997. What would be the result?

- A. a decrease in the demand for water
- B. a decrease in average household water consumption
- C. a decrease in the government revenue from the water charge
- D. a decrease in the cost of production of restaurants because they would use less water

2004/CE/11/08

Suppose an airline reduces the price of its air tickets. As a result,

- A. the demand for its air tickets will increase.
- B. the number of its passengers will increase.
- C. the supply of its aircraft service will increase.
- D. its sales revenue will increase.

2006/CE/11/49

In order to reduce the amount of household garbage disposed of, the government is planning to impose a household garbage disposal charge according to the amount of garbage disposed by each household.

Which of the following concepts can be used to explain the above policy?

- A. law of demand
- B. principle of comparative advantage
- C. diseconomies of scale
- D. law of diminishing marginal returns

2008/CE/11/06

Recently the stock market in Shanghai has become overheated. Compared with last year, the selling price of a financial magazine has increased from RMB¥5 to RMB¥8 while its sales volume has increased by 10%.

In the above case,

- A. the law of demand is violated.
- B. the demand curve of the magazine can still be downward sloping.
- C. the demand for the magazine is inelastic.
- D. the supply of the magazine is elastic.

2019/DSE/1/12

The table below shows the quantities of high-quality and average-quality Japanese fruits sold in Japan and Hong Kong. Assume the consumers' preferences on Japanese fruits are similar in both economies.

	Quantity of high-quality Japanese fruits sold (units)	Quantity of average-quality Japanese fruits sold (units)
Japan	50	200
Hong Kong	Q_1	Q_2

Suppose the cost of transporting both types of fruits from Japan to Hong Kong are the same. Which of the following figures is/are consistent with the law of demand?

- (1) $Q_1 = 30$; $Q_2 = 140$
 (2) $Q_1 = 40$; $Q_2 = 150$
 (3) $Q_1 = 45$; $Q_2 = 180$

- A. (1) only
 B. (2) only
 C. (3) only
 D. (1) and (3) only

2020/DSE/1/12

When the market supply curve of a good is derived, which of the following is/are assumed to be constant?

- (1) the market price of the good
 (2) the prices of factors of production of the good
 (3) the expected future price of the good

- A. (1) only
 B. (2) only
 C. (3) only
 D. (2) and (3) only

2020/DSE/1/17

A non-profit organisation supports the increase in cigarette tax. The organisation reveals that every 10% increase in cigarette prices reduces the total cigarette quantity transacted by 4%. Which of the following statements about cigarette tax is INCORRECT?

- A. Law of demand is illustrated in the above case.
 B. The total expenditure on cigarette will increase after the increase of the cigarette tax.
 C. The increase in cigarette tax may lead to a greater income inequality.
 D. The cigarette tax could help reduce the problem of under-production of cigarette.

Microeconomics by Topic

6. Demand & Supply (I)

2000/AL/1/08

Which of the following statements may be consistent with a downward sloping demand curve?

- A. Price and quantity transacted are observed to increase together.
 B. Price rises and quantity transacted falls.
 C. A student is not willing to give up anything for an additional distinction in one other subject.
 D. All of the above.

Short & Structured Questions

1995/CE/1/3

(a) State the law of demand.

(2 marks)

(b) Point out the difference between 'quantity demanded' and 'quantity bought'.

(2 marks)

1996/AL/1/7(a)

In Hong Kong, the number of supermarket outlets has grown from less than 50 in 1973 to 560 in 1993, and the range of products carried by a single large outlet reaches 8 000 items. This development contrasts sharply with the earlier period (say in the 1950's), when small grocery stores each carrying and specializing a few dozen items had been the popular practice.

How would you explain the growth of supermarkets as a result of a change in the wage rate of domestic servants? (3 marks)

1996/AL/1/8(a)

In Hong Kong, the number of children an average woman expects to bear in a lifetime has fallen from 4.5 in 1965 to around 1.3 in 1995.

A child may be regarded as a consumption good, for which a cost or a price must be paid. Considering a child as a consumption good, how would you explain the sharp fall in fertility rate? (5 marks)

2000/AL/1/6

Currently households pay rates (差餉) to cover the disposal charge for their garbage (rubbish) and the rates depend on the value of their flats. Will there be any change in the amount of garbage disposed of by each household if the disposal charge is calculated according to

(a) the number of people per household instead?

(b) the number of standard garbage bags used by each household instead?

(8 marks)

2001/AL/1/3

If the market price of a haircut charged by barber shops rises during holidays because customers have more free time to get their hair cut, does this mean that to customers haircuts are really more expensive during holidays because of an increase in market demand? (7 marks)

MARKING SCHEME

1995/CE/1/06 C	2004/CE/1/08 B (55%)	2008/CE/1/06 B (24%)	2019/DSE/1/12 B	2020/DSE/1/17 D
1997/CE/1/07 B	2006/CE/1/49 A (70%)	2000/AL/1/08 D	2020/DSE/1/12 D	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

- 1995/CE/1/3
(a) If the price of a good rises, its quantity demanded will decrease, (and vice versa,) ceteris paribus (2)
- (b) 'Quantity demanded' refers to consumers' plan, and does not imply what can be actually bought (in what quantity and at what price) in the market. (2)

1996/AL/1/7(a)
The time cost of shopping is reduced by the supermarket. With sharply rising wages of domestic servants, this reduction of shopping time worth more.

1996/AL/1/8(a)
The cost of raising children has risen significantly in Hong Kong because of the rising costs of domestic servants, the rising employment opportunity, for women, a general increase in the cost of time, and a sharp rise in housing rent. Hence the quantity of children demanded falls.

- 2000/AL/1/6
(a) No. For a given household size, the new charge will be a lump-sum fee, which will not vary with the amount of garbage disposed of. In other words, the marginal cost of disposing garbage remains unchanged.
- (b) No, if all the garbage is filled into one big bag before and after the change.

However, if more than one bag are originally used, the number of garbage bags will drop, with each bag squeezed more tightly. Because there are limits as to how tight the bag can be squeezed, the amount of garbage will also drop.

2001/AL/1/3
The cost of time falls for customers taking haircuts during holidays. The price of a haircut is the price charged by a barber plus the time cost, so during holidays the full price of a haircut falls.

(Therefore, according to the law of demand, the number of customers going to barber shops during holidays is larger.)

6.2 RELATIVE PRICE AND THE LAW OF DEMAND

Multiple Choice Questions

1985/AL/1/06
In grocery stores, wine of types A and B are priced at \$60 and \$90 respectively. The same wines sell for \$90 and \$120 in restaurants. If grocery stores sell equal quantities of each, then restaurants will

- A. also sell equal quantities of each.
- B. sell more of type A than type B.
- C. sell more of type B than type A.
- D. sell only one type of wine.

1985/AL/1/29
Suppose the airport tax per passenger leaving Hong Kong is increased from \$100 to \$250. Which of the following is FALSE?

- A. The average length of airplane journeys tends to rise.
- B. The number of travellers will fall.
- C. The ticket prices of shorter flights will fall.
- D. The ticket prices of longer flights will rise.

1986/AL/1/26
'Dynasty' is a wine produced jointly by the French and the Chinese in China. As the finest table wine produced in China, it is served only in the finest restaurants in China. This is because

- A. only foreigners like French wine and they visit primarily the finer restaurants in China.
- B. the Chinese government prohibits the selling of this wine in poorer restaurants.
- C. the Chinese want to earn foreign currencies, and therefore the wine is sold only to foreigners, who visit primarily the finer restaurants.
- D. with more costly settings and services in the finer restaurants, good wine becomes relatively cheaper.

1989/AL/1/14
Sunkist oranges are regarded as the finest quality oranges produced in California. However, it is observed that a relatively small quantity of Sunkist oranges is sold in Los Angeles, but they are plentiful in Hong Kong. This phenomenon is explained by

- A. the fact that Hong Kong and Californian consumers have different preferences for oranges.
- B. the hypothesis that the demand curve for oranges is negatively sloped.
- C. the super-abundance of oranges in California.
- D. the fact that Sunkist oranges are advertised in Hong Kong.

1992/AL/1/08
According to the law of demand, if taxi drivers impose a \$5 additional charge per trip regardless of distance,

- A. the number of short distance trips will have a larger percentage fall than long distance trips.
- B. the number of short distance trips will have a smaller percentage fall than long distance trips.
- C. the number of short and long distance trips will both fall by the same percentage.
- D. the ratio of short to long distance trips will not change.

1994/AL/1/07

Country A imports two brands of garments, X and Y, from Country B. Brand X is of better quality and is higher priced. Now, a tariff rate of 10% is imposed on both X and Y. If there is no other source of supply of garments, we predict that

- A. the proportion of X in the total garments imported decreases.
- B. the proportion of X in the total garments imported increases.
- C. the proportion of X in the total garments imported remains unchanged.
- D. the total amount of garments imported remains unchanged.

1996/AL/1/12

Suppose the present airport tax is changed. Instead of a lump sum tax, an ad valorem tax on the airline ticket price is imposed. Which of the following must result from the change?

- A. an increase in the percentage of first class passengers
- B. a longer journey on average
- C. lower ticket prices (excluding tax) with poorer quality of service.
- D. None of the above is correct.

1997/AL/1/08

A per unit tax imposed on cigarettes will tend to generate which of the following effects?

- A. The quality of cigarettes will improve.
- B. The length of cigarettes will increase.
- C. Cigarettes will be sold by piece, not by package.
- D. Both A and B.

1997/AL/1/11

Which of the following is NOT implied by the law of demand?

- A. Relatively more high quality vegetables are sold in urban markets than in rural markets which are closer to the farms.
- B. An ad valorem tax on whisky leads to a greater drop in the sale of lower-priced whisky.
- C. People tend to eat more in buffet dinners than in ordinary dinners.
- D. The number of car accidents rises when the law requires the drivers to wear seat belts.

2000/AL/1/22

If a uniform per-unit tax on wine is removed, then

- A. the price of high-quality wine will decrease.
- B. the price of low-quality wine will decrease.
- C. the relative price of high-quality wine will increase.
- D. All of the above.

2001/AL/1/08

If the government changes the same lump-sum sale tax to each and every customer going to eat in restaurants,

- A. the price of food in restaurants will be reduced.
- B. a customer will eat less each time he goes to a restaurant and he will go less often.
- C. a customer will go to restaurants less often, but he will go to the higher-class restaurants.
- D. None of the above.

2001/AL/1/20

A unit sales tax imposed on cigarettes implies that

- A. the cigarettes produced will be longer.
- B. more smokers will buy cigarettes by the carton (條裝).
- C. the quantity of tobacco consumed will not be affected.
- D. the age distribution of smokers will not be affected.

2002/AL/1/15

The law of demand would be rejected if

- A. a larger quantity of cheap model motorbikes were sold near the place of manufacture than in a far away market.
- B. the ratio of the number of first class passengers to that of economy class passengers rose after the removal of the airport departure tax.
- C. the ratio of high-quality red wine sold to low-quality red wine sold remained unchanged after the imposition of an ad valorem tax.
- D. more mobilephones were sold during a promotion period when discounts were offered to customers.

2004/AL/1/21

There are two types of cars: luxury cars and ordinary cars. If a uniform lump-sum tax is imposed on the purchase of a new car,

- A. the proportion of luxury cars will increase.
- B. the proportion of ordinary cars will increase.
- C. the number of luxury cars will increase.
- D. the number of ordinary cars will increase.

2006/AL/1/08

Which of the following pairs of incidents is INCONSISTENT with the law of demand?

- A. Terrorist attacks in a country and a fall in the number of visitors to that country
- B. Heavier penalties for speeding and a reduced number of casualties in car accidents
- C. An imposition of quotas on garment exports and a fall in the quality of garments exported
- D. An invention of a new software program which tracks the illegal downloading of movies and an increase in the sales revenue of movie companies

2007/AL/1/08

Which of the following pairs of observations is inconsistent with the law of demand?

- A. an increase in unemployment benefits and an increase in the number of unemployed people.
- B. a sharp rise in the prices of dinners during Christmas Eve and a decrease in the number of people eating at home.
- C. an increase in the rental of parking spaces and a decrease in the average quality of vehicles.
- D. None of the above

2008/AL/1/09

Which of the following statements is INCONSISTENT with the law of demand?

- A. A restaurant charges one dollar for one cooked chicken.
- B. A publisher sells some books well below the original cost of production.
- C. A hotel charges lower room rates for travel agents.
- D. Foreign tourists tend to stay in cheaper hotels than local tourists.

2008/AL/1/16

Consider a unit tax as against an ad valorem tax imposed on cigarettes. Which of the following is correct?

- A. The unit tax tends to increase the length of the cigarettes produced.
- B. For the same amount of tax collected, the ad valorem tax tends to encourage more smuggling of cigarettes.
- C. The price elasticity of demand is easier to estimate with the ad valorem tax than the unit tax.
- D. The price elasticity of demand is easier to estimate with the unit tax than the ad valorem tax.

2009/AL/1/11

The law of demand predicts that

- A. if the demand for a good is inelastic, its quantity demanded will change by a smaller amount with a change in price.
- B. the birth rate increases when the income tax exemption for children increases.
- C. people tend to choose lower quality wine after the abolition of the ad valorem alcohol duty.
- D. the number of short distance trips will fall while the number of long distance trips will rise after a \$1 additional charge mile is imposed on taxi rides.

2010/AL/1/09

Which of the following statements is NOT implied by the law of demand?

- A. A relaxation of a garment quota leads to a decline in garment quality.
- B. A law which prohibits the advertising of products leads to improvements in product quality.
- C. An increase in the penalty on drunk driving leads to a reduction in the number of car accidents.
- D. A natural disaster in Taiwan leads to a fall in the number of tourists visiting Taiwan.

2011/AL/1/09

Which of the following is NOT implied by the law of demand?

- A. Customers tend to buy more items when there is a long waiting line at the cashier in a supermarket.
- B. Consumers tend to buy less lower-quality red wine after the abolition of the unit tax on red wine.
- C. Developers tend to build higher-quality housing units on a piece of land with a good view.
- D. Companies tend to spend more on entertaining clients when entertainment expenses are tax deductible.

2012/AL/1/08

A lump-sum airport tax has been replaced by an *ad valorem* (percentage) tax on air tickets. Which of the following will be a result of such a change?

- A. The total number of passengers may be unaffected.
- B. Travellers will have a longer journey on average.
- C. The airlines are indifferent as long as the tax payments under the two schemes are the same.
- D. The percentage of first-class passengers will rise.

2012/AL/1/09

Which of the following statements is INCOSISTENT with the law of demand?

- A. A unit tax on cigarettes tends to increase the length of the cigarettes produced.
- B. A regulation requiring compulsory use of seat belts tends to decrease the number of traffic accidents.
- C. Luxury cars are relatively more abundant in Hong Kong than in Europe.
- D. An increase in the unemployment benefit increases the unemployment rate.

2013/DSE/1/16

Which of the following is INCONSISTENT with the law of demand?

- A. When a higher per-unit import tariff is imposed, the quality of garment imports worsens.
- B. When a government reduces the unemployment benefit, the number of unemployed people drops.
- C. When political unrest in a country causes riots in its major cities, the number of tourists visiting the country drops.
- D. When people expect the price of the shares of a listed company to rise, the price of those shares rises.

2015/DSE/1/18

Which of the following is INCONSISTENT with the law of demand?

- A. More high-quality Japanese grapes are imported to Hong Kong during Mid-Autumn Festival.
- B. An increase of the per unit tax on beer results in a fall in the quantity of small-bottle beer sold in the market.
- C. After the introduction of the airport departure tax which is a fixed amount for any traveller, the average length of airplane journeys decreases.
- D. The birth rate increases when the income tax allowance for children increases.

2016/DSE/1/18

Which of the following is INCONSISTENT with the law of demand?

- A. When the government imposes an ad valorem tax (i.e. the tax is a certain percent of the price) on red wine, the ratio of high-quality red wine sold to low-quality red wine sold remains unchanged.
- B. A larger quantity of expensive fruits is sold in a faraway market than a market near the farm.
- C. Price of residential flat and quantity transacted are positively related during an economic boom.
- D. An increase in the monthly rental of parking spaces will lead to a decrease in the average quality of vehicles that use the parking spaces.

2017/DSE/1/13

Which of the following is INCONSISTENT with the law of demand?

- A. The abolishment of per unit import tariff on garment results in a rise in the quality of imported garments.
- B. Live fishes sold in a market near the fish farm have a higher price than frozen fishes sold in a faraway market.
- C. The ratio of high-quality white wine sold to total white wine sold remains unchanged when the government imposes an ad valorem tax on white wine.
- D. Developers tend to build higher-quality housing units on a piece of land with a good view.

2018/DSE/1/19

Which of the following statements is correct after the adjustment of taxi fare shown below?

Existing taxi fare	
First 2 kilometres:	\$20
Every subsequent 200 metres:	\$1.5

Adjusted taxi fare	
First 2 kilometres:	\$25
Every subsequent 200 metres:	\$1.5

- A. Passengers will take more long-distance taxi trips.
- B. The ratio of short-distance taxi trips taken to long-distance taxi trips taken will decrease.
- C. The total revenue received by taxi drivers will increase.
- D. The fixed cost of operating taxi service will increase.

Starting from the academic year 2017-18, the Hong Kong Government provides a subsidy of \$30000 annually for students pursuing full-time, self-financed undergraduate programmes (自資學士學位課程) offered by local private educational institutions.

Which of the following are the possible effects of this subsidy scheme?

- (1) The unemployment rate will drop as labour force will increase.
- (2) The scheme helps equalise opportunities because students from low-income households will have a better chance to receive higher education.
- (3) The full employment output level will increase in the future because the average productivity increases after people receiving better education and training.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1993/AL/1/9

Consider a country which seeks to impose a significant tax on the import of automobiles. This country may (a) impose a uniform unit tax for each and every automobile imported, or (b) impose an ad valorem tax as a percentage of the market value of the automobile.

Suppose with either (a) or (b) the government would receive the same total tax revenue. Which of the two schemes would have a higher average quality of the automobiles imported? Explain. (10 marks)

1995/AL/1/6(c)

Suppose the Hong Kong government decides to limit the number of private cars to its present level. This is done by issuing to each existing vehicle a quota permit without which a vehicle will not be allowed to operate on the road. This quota permit is freely transferable (saleable) in the market. In order to drive a new car on the road, therefore, it is necessary to obtain a quota permit in the market.

Assuming the demand for private cars is rising, what will the effects of the quota system be upon the average quality of vehicles operating on the roads? Explain. (5 marks)

1998/AL/1/6

Beginning in the early 70's, countries in Asia have all been enforced to meet quota requirements when they export garments to the United States. This export quota is imposed on a unit basis, that is, the garments exported are counted by unit, not by their quality or market value.

For many years after the introduction of this system, the quotas held by Hong Kong garment manufacturers were freely transferable (saleable) at uncontrolled market prices; indeed, for many years Hong Kong was the only place in Asia which allowed a free market for quota transactions.

Use the law of demand to explain (a) why there had been a significant improvement in the quality of HongKong garments exported to the United States under the quota system; and (b) why this improvement in garment quality was far more significant in Hong Kong than in other Asian countries. (10 marks)

2010/AL/1/8(b)

The United States has imposed punitive tariffs on the importation of automobile tyres manufactured in China. The tariff rates are very high and are designed to be imposed in three successive years: 35 percent in the first year, 30 percent in the second year, and 25 percent in the third year.

If, instead of imposing the above import tariffs, the US government imposes a unit import tax on automobile tyres manufactured in China, would you expect the quality of the tyres exported from China to the US to improve, worsen or stay the same? Explain. (5 marks)

2014/DSE/11/9(c)

Many countries have considered imposing 'soft drink tax' for health reasons. Suppose a country decides to impose a per unit tax on the sellers for every bottle of soft drink sold in the market.

'As the amount of tax imposed on each bottle is the same irrespective of the bottle size, the proportion of larger-bottle soft drinks sold in the market will increase.' Explain this argument using the law of demand. (5 marks)

2016/DSE/11/13(b)(iii)

The airport corporation plans to build an additional runway. There are two proposals to finance the runway.

Proposal B: the airport corporation charges a lump-sum fee on every departing traveler

Discuss the effects of the two proposals on the average flight distance for departing travellers of Country H. (4 marks)

MARKING SCHEME

1985/AL/06 C	1996/AL/12 D (deleted)	2002/AL/15 B	2009/AL/11 B (54%)	2015/DSE/18 C (53%)
1985/AL/29 C	1997/AL/08 D	2004/AL/21 A (78%)	2010/AL/09 B (64%)	2016/DSE/18 D (44%)
1986/AL/26 D	1997/AL/11 B	2006/AL/08 C (74%)	2011/AL/09 B (62%)	2017/DSE/13 A (46%)
1989/AL/14 B	2000/AL/22 D	2007/AL/08 C (43%)	2012/AL/08 A (55%)	2018/DSE/19 B (69%)
1992/AL/08 A	2001/AL/08 C	2008/AL/09 D (70%)	2012/AL/09 B (50%)	2019/DSE/20 C
1994/AL/07 C	2001/AL/20 A	2008/AL/16 A (80%)	2013/DSE/16 A (46%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1993/AL/9

The uniform unit tax will lead to the import of higher quality automobiles because the price of a higher quality automobile will fall relative to the price of a lower quality automobile. (With the ad valorem tax, however, the relative prices of high vs. low quality automobiles will remain the same.)

By the law of demand, the quantity of higher quality automobiles rises relative to that of lower quality automobiles.

1995/AL/6(c)

The average quality of vehicles operating on the roads will rise.

This is because with a positive price of quota, the prices of higher quality vehicles imported will fall relative to lower quality vehicles.

By the law of demand, the quantity of higher quality vehicles rises relative to that of lower quality vehicles.

1998/AL/6

(a) Because one unit of quota must be used for one unit of garment regardless of garment quality, and because the quota has a positive value, the price of higher quality garment fell relative to lower quality garments under the quota system. Hence according to the law of demand the quantity of higher quality garments demanded by the United States rose relative to that of lower quality garments.

(b) Because Hong Kong had long been the only place in Asia to allow a free market for quota transactions, the value of the quota was higher and therefore the relative price of higher quality garments fell further. (This explains why Hong Kong became the leading exporter of higher quality garments and why the quota system, designed to protect the garment industry in the U.S., ended up hurting that industry far more than without the quota system → Hong Kong garments before the quota were generally of such low qualities that they competed with those produced in Mexico or the Philippines, but hardly competed with those produced in the U.S.)

2010/AL/8(b)

Exactly the same as shipping the good apples out with transportation cost added, because the unit import tax added will reduce the price of higher quality tyres relative to lower quality tyres.

2014/DSE/19(c)

Law of demand: when the price of a good increases, the quantity demanded of the good decreases, vice versa, ceteris paribus.

Here the unit of measurement to which the tax applies is 'bottle', rather than volume (e.g., in litres), of soft drinks. When the same amount of tax is added to each unit (bottle), then — per volume of liquid contained — larger-bottle soft drinks would become cheaper than the small-bottle ones.

The relative price of larger-bottle soft drinks (in terms of small-bottle ones) thus drops. The law of demand then implies that people would buy more larger-bottle soft drinks relative to small-bottle ones, so the proportion of larger-bottle soft drinks sold in the market would increase. (5)

2016/DSE/11/13(b)(iii)

A lump-sum fee charged on both long-distance and short distance travellers will result in a drop of the price of long-distance flight relative to short-distance flight. A higher proportion of travellers will thus take long-distance flights, increasing the average flight distance. (4)

6.3 DETERMINATION OF MARKET PRICE

Multiple Choice Questions

1995/CE/II/08

If the market price of a good is equal to its equilibrium price,

- (1) the sellers can sell all the quantity that they are willing to supply at that price.
- (2) there is no pressure for the price to change.
- (3) the sales revenue is maximized
- (4) consumers' want of the good is fully satisfied

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

2001/CE/II/04

'A rise in the price of a good will cause a decrease in demand for it and an increase in its supply.'
The above statement is

- A. correct because a change in price will change both demand and supply.
- B. incorrect because a rise in price will only increase the supply.
- C. incorrect because a rise in price will only decrease the demand.
- D. incorrect because both demand and supply will not change as a result of change in price.

2013/DSE/II/10

Which of the following is assumed to be constant when the market demand curve of a good is derived?

- (1) the income of the consumers
- (2) the price of the good
- (3) prices of related goods
- (4) preference of the consumers

- A. (1) and (3) only
- B. (2) and (3) only
- C. (1), (2) and (4) only
- D. (1), (3) and (4) only

1992/CE/II/21

The increase in demand for container transportation will lead to an increase in demand for container truck drivers. This is an example of

- A. competitive demand.
- B. joint demand.
- C. derived demand.
- D. excess demand.

1999/CE/II/05

In which of the following pairs does the demand for the first good create a derived demand for the second?

- A. Digital versatile disc (DVD) and laser disc (LD) player
- B. Wood and mutton
- C. Hardback book and printing paper
- D. Electricity and light bulb

2000/CE/II/09

Which of the following is an example of joint demand?

- A. The courier service (送遞文件服務) of a local firm and the postal service of the government.
- B. The Airport Express train service and the Tung Cheung Line train service
- C. Magazines and printing paper
- D. Floppy diskettes and floppy diskette drives

2009/CE/II/05

The demand for _____ can be regarded as a derived demand of _____.

- A. beef leather
- B. printing paper magazines
- C. pop songs MP3 players
- D. high definition digital receivers (高解電視機頂盒) TV sets

2014/DSE/II/12

In which of the following pairs does the demand for the first good create a derived demand for the second one?

- A. Aviation service and pilots
- B. West Rail Line train service and Light Rail train service
- C. Blu-ray discs and Blu-ray disc players
- D. Hong Kong Disneyland and Ocean Park Hong Kong

2016/DSE/II/14

The demand for _____ can be regarded as a derived demand for _____.

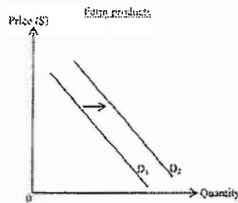
- A. coffee beans coffee
- B. selfie sticks (自拍杆) digital cameras
- C. chicken wings chicken legs
- D. newspapers printing paper

2016/DSE/II/17

The demand for construction workers in Hong Kong will increase if

- A. the legal procedures for urban re-development are simplified.
- B. wage rates of construction workers decrease.
- C. the government provides more allowances for training programmes for the construction industry.
- D. there are fewer job opportunities in the construction industry in Macau.

2018/DSE/1/13

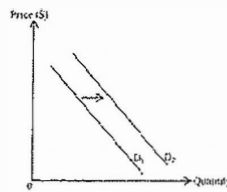


Refer to the above diagram. The price of farming tools will

- A. rise because farm products and farming tools are in joint demand.
- B. fall because farm products and farming tools are in joint demand.
- C. rise because demand for farm products creates a derived demand for farming tools.
- D. fall because demand for farm products creates a derived demand for farming tools.

1990/CE/II/17

Which of the following will cause the demand curve of ice cream to shift from D_1 to D_2 ?



- A. The cost of production of ice cream decreases.
- B. More and more children enjoy drinking soft drinks.
- C. The price of ice cream decreases.
- D. Children are given more pocket money.

1991/CE/II/24

Which of the following may cause the market demand for housing in Hong Kong to increase?

- A. There is an influx of immigrants.
- B. The interest rate has increased.
- C. More housing estates are built by the government.
- D. The selling price of flats has decreased.

1992/CE/II/22

Which of the following factors will cause a decrease in the demand for imported private cars?

- (1) The Organization of Petroleum Exporting Countries (OPEC) restricts the production of oil.
- (2) An extension of the Mass Transit Railway to Kennedy Town is built.
- (3) The price of imported private cars increases.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3) only

1992/CE/II/42

The Housing Authority has offered to sell rental flats in public housing to the present tenants. However, not many tenants have expressed a desire to buy the flats they are living in. Which of the following would make the tenants more willing to buy the flats?

- A. increasing the supply of flats in the private sector
- B. increasing the rents of public housing units
- C. increasing the interest rates on home mortgage loans
- D. increasing the quantity of Home Ownership Scheme flats allocated to tenants

1993/CE/II/18

In 1992, the lending ceiling (最高貸款額) on home mortgages in Hong Kong was reduced from 90% to 70% of the value of the property. This resulted in _____ residential property.

- A. a decrease in the demand for
- B. a decrease in the quantity demanded of
- C. an increase in the supply of
- D. an increase in the quantity supplied of

1994/CE/II/07

If the price of movie tickets increases and the rental of laser discs falls, then the equilibrium price of laser disc players

- A. will remain unchanged.
- B. will increase.
- C. will decrease.
- D. may increase or decrease.

1994/CE/II/58

Which of the following situations will NOT lead to an increase in demand for private cars?

- A. The price of private cars decreases sharply.
- B. More people live in the remote areas in the New Territories.
- C. The fares for public transport increase.
- D. The government abolishes the gasoline tax.

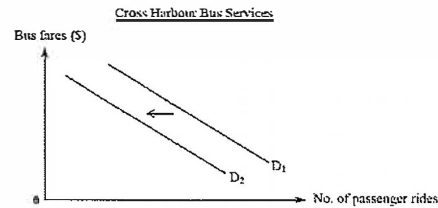
1996/CE/II/06

Suppose the price of compact discs decreases. The price of compact disc players will _____ and the demand for cassette tapes will _____.

- A. rise increase
- B. rise decrease
- C. fall increase
- D. fall decrease

2002/CE/II/07

Refer to the following diagram:



Which of the following would lead to the above change in demand from D_1 to D_2 ?

- A. an increase in the toll fee for taxis using the cross harbour tunnels
- B. an increase in the frequency of cross harbour bus services
- C. a fall in the wage rate of bus drivers
- D. a fall in the ticket price for Mass Transit Railway services

2003/CE/II/08

According to research evidence, one of the substances in beer has proved to be good for the healthy development of bones. This will lead to an increase in

- (1) the supply of beer.
- (2) the quantity transacted of beer.
- (3) the demand for beer.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2004/CE/II/05

Suppose a bill is passed that punishes the buyers of pirate compact discs (CDs). The price of pirate CDs would _____ and the quantity transacted would _____.

- A. increase increase
- B. increase decrease
- C. decrease increase
- D. decrease decrease

2005/CE/II/04

Suppose consumers of traditional eye-glasses gradually change to using contact lenses. As a result, the equilibrium price of traditional eye-glasses will _____ and the sales revenue of traditional eye-glass sellers will _____.

- A. rise increase
- B. rise decrease
- C. fall increase
- D. fall decrease

2006/CE/II/07

Nowadays, more schools in Hong Kong have implemented reading programs to develop students' reading habits. This would lead to an increase in

- A. both the demand for and the supply of books.
- B. both the demand for and the quantity supplied of books.
- C. both the supply and the quantity demanded of books.
- D. both the supply and the quantity supplied of books.

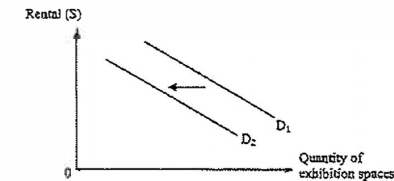
2007/CE/II/10

A possible cause of an increase in both the world market price and the quantity transacted of gasoline could be

- A. a warmer than usual weather during winter around the world.
- B. a rapid industrial development of newly developing countries.
- C. oil production cuts by the Organization of Petroleum Exporting Countries (OPEC).
- D. a decrease in the price of crude oil which is used to produce gasoline.

2008/CE/II/04

The following diagram shows the market of exhibition spaces in Hong Kong.



An increase in the _____ would lead to a shift of the demand curve from D_1 to D_2 in the diagram.

- A. rental of exhibition spaces in Hong Kong
- B. rental of exhibition spaces in Macau
- C. number of trade fairs held in Hong Kong
- D. exhibition spaces in Macau

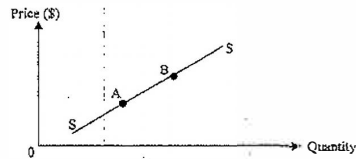
2010/CE/II/06

Suppose both the price and quantity transacted of imported rice decrease. This is likely to be caused by

- A. an increase in the transportation cost resulting from a higher fuel price.
- B. a change in taste from consuming rice to consuming noodles.
- C. a bad harvest of rice.
- D. an increase in the income of households given that rice is a normal good.

2015/DSE/11/15

SS is the supply curve for smartphones. Which of the following reasons can best explain the change of the equilibrium position in the smartphone market from A to B?



- A. The retailers offer more free gifts for buying smartphones.
- B. The size of a tablet computer with a phone function is reduced.
- C. There are more smartphone producers in the market.
- D. The major network service providers increase the service charge at the same price.

2016/DSE/11/13

Which of the following situations would lead to an increase in the demand for private housing?

- A. The price of private housing decreases.
- B. The supply of public housing increases.
- C. People expect the interest rate for mortgage loans to increase later.
- D. People expect the price of private housing to increase later.

2017/DSE/11/14

Which of the following situations would most likely lead to an increase in the demand for iPhone produced by Apple Inc.?

- A. A technological breakthrough in the battery industry reduces its production cost.
- B. People expect the next model of iPhone will have more innovative features.
- C. A model of Samsung smartphone is banned by many airlines.
- D. Apple Inc. reduces the selling price of iPhone.

1990/CE/11/17

Which of the following will cause a fall in the equilibrium price of petroleum in a country?

- A. The country imposes a quota on the imported oil.
- B. The cost of exploration for oil increases substantially.
- C. The country undergoes rapid industrialization.
- D. A cheap substitute for oil has been discovered.

1993/CE/11/57

The price of textbooks in Hong Kong has greatly increased in recent years. Which of the following is NOT a possible reason for this?

- A. more frequent revisions of textbooks
- B. more publishers publishing textbooks
- C. increasing wages and rents
- D. the photocopying of textbooks becoming more costly

1996/CE/11/04

The supply of secondary school teachers will increase if

- A. the government provides a subsidy for schools to employ more language teachers.
- B. the government increases the salary of teachers.
- C. the number of children eligible for secondary education increases
- D. the number of job vacancies in the business field decreases

1996/CE/11/56

An increase in the supply of leather which is used in the production of shoes will have the following effects EXCEPT

- A. an increase in the demand for shoes.
- B. an increase in the supply of shoes.
- C. an increase in the quantity demanded of leather.
- D. an increase in the quantity demanded of shoes.

1998/CE/11/09

Suppose the price of oranges increases and the quantity of oranges transacted decreases in H.K., this is likely caused by

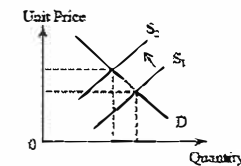
- (1) a rise in transportation cost.
- (2) a fall in the price of apples.
- (3) the fact that oranges have proved useful in reducing the chance of catching a cold.
- (4) a serious bad harvest of oranges in the U.S.A.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

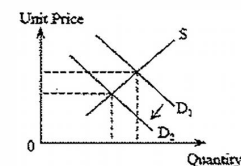
2000/CE/11/12

Which of the following diagrams shows the result of an improvement in the technology used in producing digital versatile disc (DVD) players?

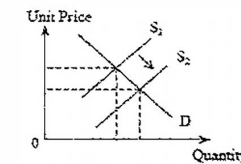
A. DVD Players



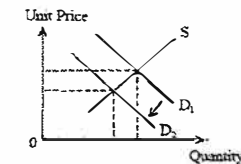
B. DVDs



C. Cinema Tickets



D. Video Compact Discs (VCDs)



2001/CE/II/03

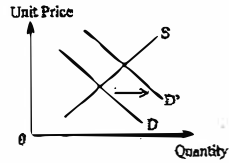
'Compared to last year, more watermelons were sold this summer and the price was lower.' This is because there was a (an) _____ in the _____ watermelons.

- A. increase demand for
- B. decrease demand for
- C. increase supply of
- D. decrease supply of

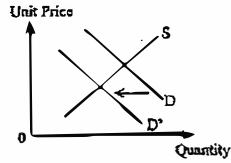
2001/CE/II/05

Which of the following diagrams shows the result of a significant increase in the annual licence fee for private cars?

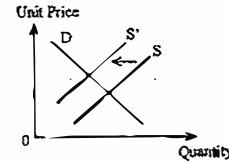
A. Public Transport Services



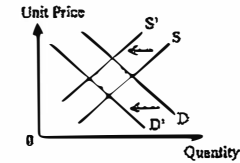
B. Public Transport Services



C. Private Cars



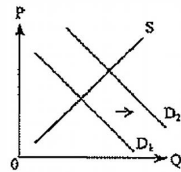
D. Private Cars



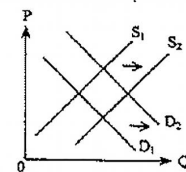
2003/CE/II/14

Which of the following diagrams shows the result of a significant reduction in the cost of storing and transporting chilled chicken from the mainland of China to Hong Kong?

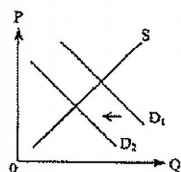
A. Chilled chicken



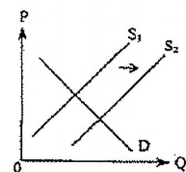
B. Chilled chicken



C. Fresh chicken

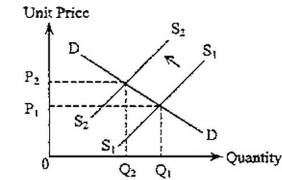


D. Fresh chicken



2004/CE/II/06

Suppose the Hong Kong government imposes a toll on highway users.



The above graph shows the effect of the above toll on the market of

- A. Mass Transit Railway (MTR) services.
- B. private motor cars.
- C. gasoline.
- D. school bus services.

2006/CE/II/06

An increase in the price of petroleum will lead to a decrease in

- A. the demand for petroleum.
- B. the demand for mini-bus services.
- C. the supply of mini-bus services.
- D. the supply of mini-bus drivers.

2006/CE/II/08

Which of the following would lead to a fall in price and an increase in quantity sold of imported Japanese television sets in Hong Kong?

- A. The transportation cost of goods from Japan to Hong Kong increases.
- B. An increasing number of lower-priced similar models of television sets are imported from Korea.
- C. The Japanese technology in producing television sets improves.
- D. The salaries tax rate in Hong Kong decreases.

2007/CE/II/05

Suppose the technology required to produce LCD TV sets (液晶電視機) advances. The price of LCD TV sets will _____ and the price of traditional CRT TV sets (傳統顯像管電視機) will _____.

- A. rise rise
- B. rise fall
- C. fall rise
- D. fall fall

2009/CE/II/06

An increase in the price of flour will lead to a decrease in

- A. the demand for flour.
- B. the supply of flour.
- C. the demand for bread.
- D. the supply of bread.

2013/DSE/1/12

A drop in the price for good X will lead to a drop in the price of good Y if

- (1) good X and good Y are substitutes
 - (2) good X and good Y are complements
 - (3) good X and good Y are in competitive supply.
 - (4) good X and good Y are in joint supply
- A. (1) and (3) only
B. (1) and (4) only
C. (2) and (3) only
D. (2) and (4) only

2015/DSE/1/14

Holding other factors constant, a rise in the price of Good X will lead to a fall in the total revenue of Good Y if

- A. Good X and Good Y are complements.
- B. Good X and Good Y are substitutes.
- C. Good X and Good Y are in joint supply.
- D. Good X and Good Y are in competitive supply.

2017/DSE/1/17

Suppose Good Y is an inferior good. When people's income rises and the production cost of Good Y increases, the equilibrium price of Good Y _____

- A. will increase
- B. will decrease
- C. will remain unchanged
- D. may increase or decrease

2018/DSE/1/20

The following table shows the number of new Tesla electric vehicle registered in Hong Kong.

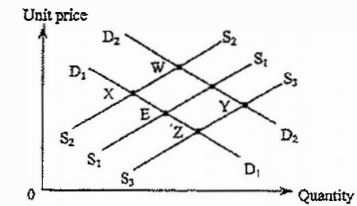
Month	Number of new Tesla electric vehicle registered in Hong Kong
December 2016	168
January 2017	168
February 2017	590
March 2017	2939

The Government announced in mid-February 2017 that the full exemption from first registration tax on electric vehicles would end on March 31, 2017.

Which of the following best explains the above data?

- A. The supply of electric vehicles increased because new technology reduced the production cost of battery used in electric vehicles.
- B. The supply of electric vehicles increased because of the exemption of first registration tax by the Government.
- C. The demand for electric vehicles increased because the Government built more charging stations in the city.
- D. The demand for electric vehicles increased because the buyers expected the cost of buying electric vehicles to go up in the future.

1991/CE/11/12

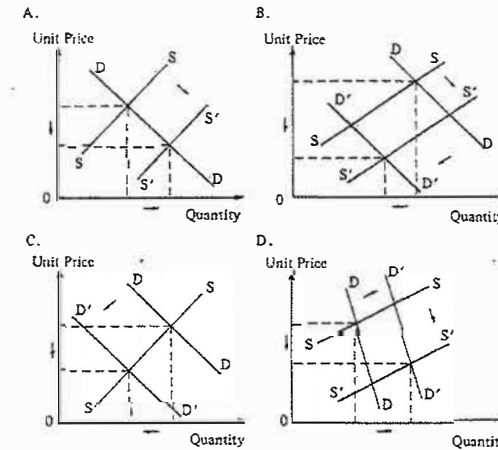


The above diagram shows the market for apples. E is the original equilibrium point. If there is an increase in the population and a good harvest of apples, the new equilibrium point will be

- A. X
- B. W
- C. Y
- D. Z

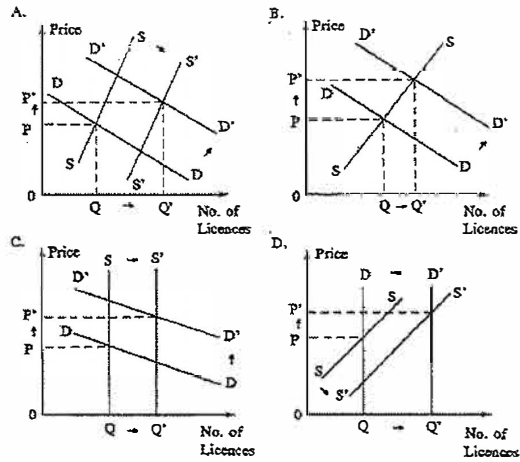
1993/CE/11/26

Technological breakthrough has reduced the production cost of calculators. At the same time, there have been less students sitting for the CE examinations and requiring for the use of calculators. Suppose these two factors have caused the price of calculators to fall. Which of the following graphs helps to illustrate the above situation?



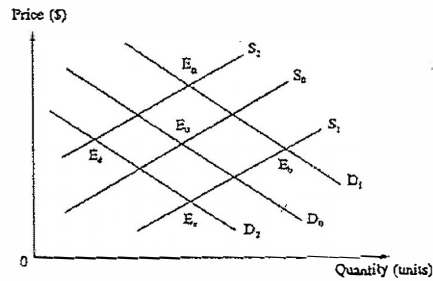
1994/CE/II/06

In Hong Kong, the number of taxi licence is controlled by the government. In a certain year, it was found that the price of taxi licences increased after the government issued more taxi licences. Which of the following diagrams illustrates the above situation?



1995/CE/II/13

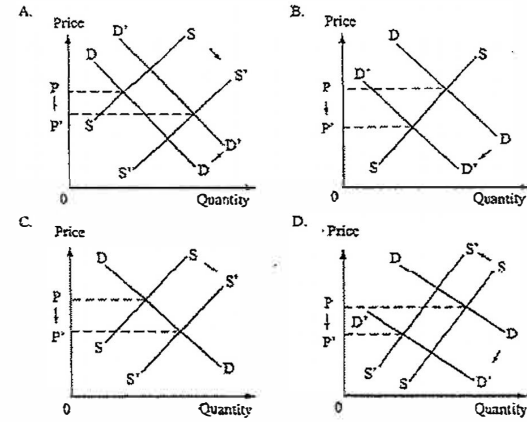
Refer to the diagram below. E_0 is the initial equilibrium point of the toy market in the US. After a sharp increase in the price of raw materials and a boom in the US economy, the new equilibrium point will be



- A. E_0 .
- B. E_1 .
- C. E_2 .
- D. E_3 .

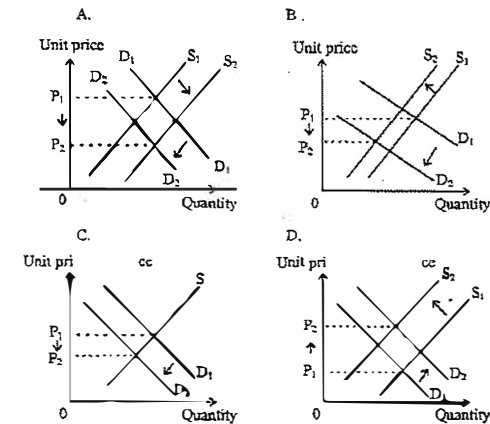
1996/CE/II/05

Suppose there is a technological breakthrough in the production of mobile phones and the charge per minute of using a mobile phone decreases. As a result, the price of mobile phones falls. Which of the following best illustrates the situation of the market for mobile phones?



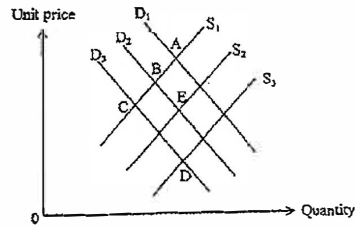
1997/CE/II/05

When the mad cow disease broke out in 1996, many cows were destroyed. Which of the following diagrams best describes the effects in the beef market?



1998/CE/11/08

The diagram below shows the supply and demand curves of tobacco. The original equilibrium point is at E.



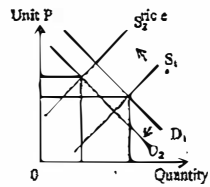
Suppose the government increase the income tax of households and the excise duty on tobacco, the equilibrium point will be

- A. Point A.
- B. Point B.
- C. Point C.
- D. Point D.

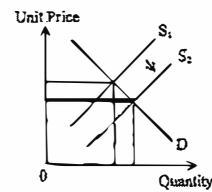
1998/CE/11/10

Suppose the rice production in Thailand suffers a serious fall in output and hence less rice is exported to Hong Kong. Which of the following is a result of this event?

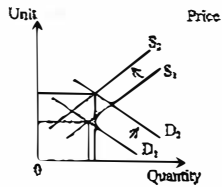
A. THAI rice in Hong Kong :



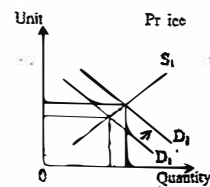
B. THAI rice in Hong Kong :



C. CHINESE rice in Hong Kong :

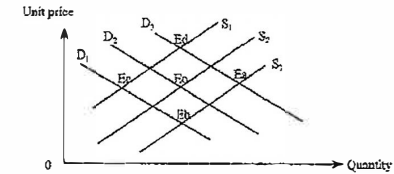


D. CHINESE rice in Hong Kong :



1999/CE/11/12

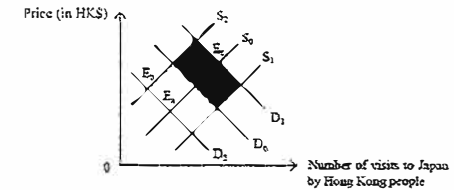
In the following diagram, E_0 is the initial equilibrium point of the market for Hong Kong's garment products in the U.S. Suppose there is an increase in import duties in the U.S. and many U.S. retailers order from other Asian countries instead of Hong Kong, the new equilibrium point in the diagram would be



- A. E_a .
- B. E_b .
- C. E_c .
- D. E_d .

2000/CE/11/07

The diagram below shows the market of tours of Hong Kong people to Japan. The initial equilibrium is at E_0 . Because of economic recession, fewer Hong Kong people spend their holiday in Japan. Moreover, the Japanese Yen appreciates against the Hong Kong dollar.

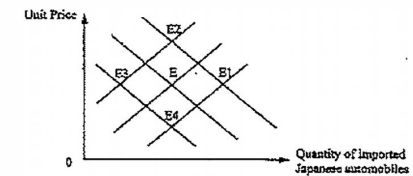


The new equilibrium point in the market will be at

- A. E_a .
- B. E_b .
- C. E_c .
- D. E_d .

2001/CE/11/10

The diagram shows the supply and demand curves of imported Japanese automobiles in Hong Kong. The original equilibrium point is at E.

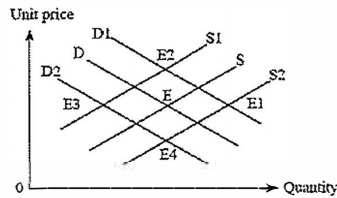


If there is an increase in the transportation cost from Japan to Hong Kong and more similar models of Korean automobiles with cheaper price are imported, the new equilibrium point will be at

- A. E_1
- B. E_2
- C. E_3
- D. E_4

2002/CE/11/09

The diagram below shows the supply and demand schedules of the market for airline tickets in Hong Kong. The original equilibrium point is at E.



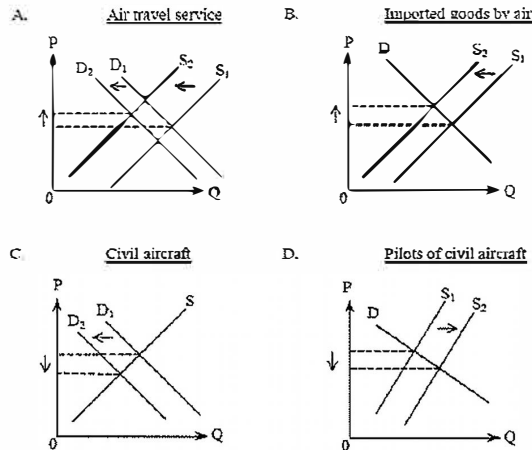
If, as a result of a terrorist attack, fewer people travel overseas and the insurance premium of airlines rises to a high level, the new equilibrium point will be at

- A. E₁
- B. E₂
- C. E₃
- D. E₄

2002/CE/11/50

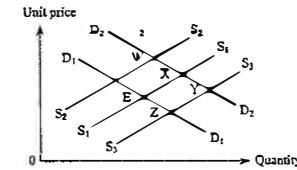
At the outbreak of war in the Middle East, civil aircraft which used to fly through the nearby air space had to fly longer routes in order to stay away from the war areas. Moreover, the risk of travelling by civil aircraft was also higher.

Which of the following diagrams about the effects of these changes is **INCORRECT**?



2004/CE/11/07

The following diagram shows the market supply and demand curves of face masks in Hong Kong. The original equilibrium point is E.

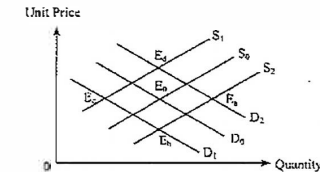


Suppose more people decide to wear face masks to prevent the spread of respiratory diseases and there is an increase in the number of face mask producers. As a result, the new equilibrium point would be

- A. W
- B. X
- C. Y
- D. Z

2005/CE/11/05

In the following graph, E₀ was the original equilibrium point of the seafood market in Hong Kong.

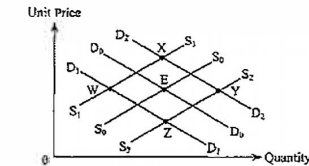


Last year a number of people were poisoned by seafood. At the same time, fishermen's harvest decreased. As a result, what would be the new equilibrium point in the graph?

- A. E₁
- B. E₂
- C. E₃
- D. E₄

2006/CE/11/05

The following diagram shows the private housing market. Point E is the original equilibrium point.

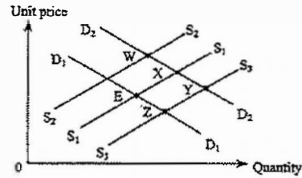


Suppose there is an increase in both the home mortgage loan interest rate and the labour cost of private house construction. The new equilibrium point in the diagram would be

- A. W
- B. X
- C. Y
- D. Z

2007/CE/II/04

The diagram below shows the supply and demand curves of hotel accommodation in Macao. The original equilibrium point is at E.

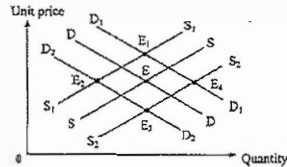


More and more hotels start operating in Macao and it is becoming more popular to visit the place. The new equilibrium point will be at _____.

- A. W
- B. X
- C. Y
- D. Z

2008/CE/II/05

The diagram below shows the supply and demand curves of residential property in Hong Kong. The original equilibrium point is at E.

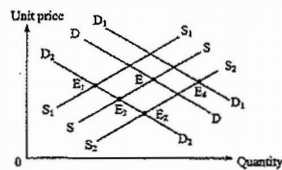


If the population of Hong Kong increases and the wage rate of local construction workers rises, the new equilibrium point will be at _____.

- A. E₁
- B. E₂
- C. E₃
- D. E₄

2009/CE/II/07

The diagram below shows the supply and demand curves of mainland China's milk powder products in Hong Kong. The original equilibrium point is at E.

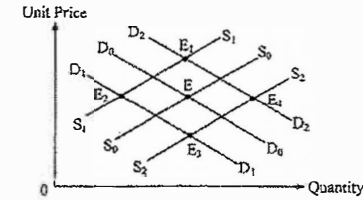


Some of these milk powder products were found to contain the harmful substance, melamine (三聚氰胺) and some mainland milk powder producers left the industry. One possible new equilibrium point of the above diagram is at _____.

- A. E₁
- B. E₂
- C. E₃
- D. E₄

2010/CE/II/08

The diagram below shows the supply and demand curves of swine flu vaccine in Hong Kong. The original equilibrium point is at E.

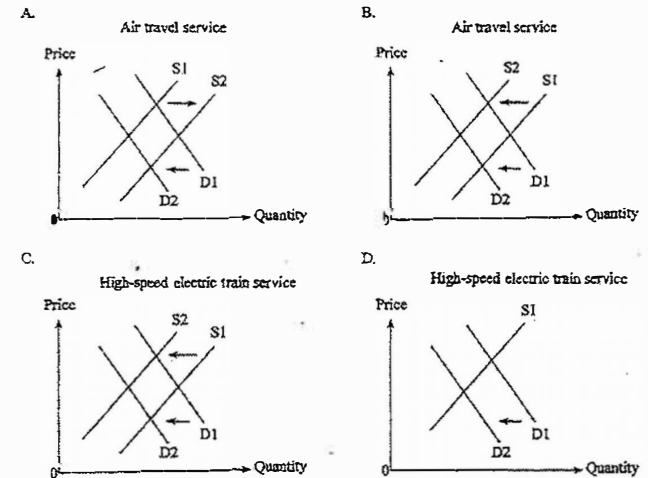


If the number of the swine flu vaccine manufacturers increases and the risk of being infected by swine flu increases, one possible new equilibrium point of the above diagram is at _____.

- A. E₁
- B. E₂
- C. E₃
- D. E₄

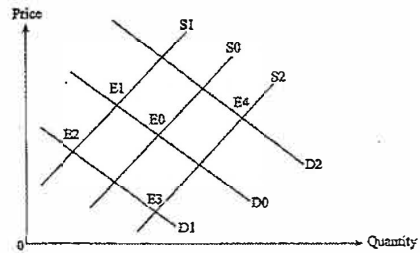
2012/DSE/II/13

A train accident seriously affects the confidence of travellers using a high-speed electric train service. At the same time, the airlines are facing the problem of rising fuel prices. Which of the following diagrams could represent a result of the above events?



2012/DSE/1/15

The following is the demand-supply diagram of a property market. E0 is the original equilibrium point.

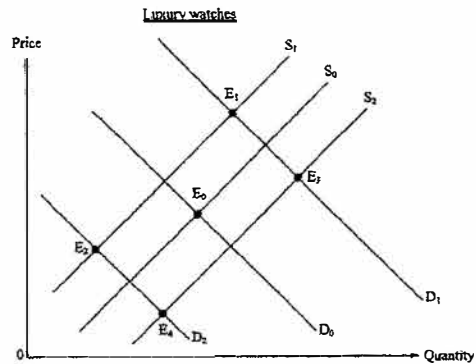


If the government increases the stamp duties levied on property buyers and tightens the controls on dumping of construction waste, the new equilibrium point in the property market will be _____.

- A. E₁
- B. E₂
- C. E₃
- D. E₄

2013/DSE/1/11

Refer to the following demand-supply diagram showing the market of luxury watches in Hong Kong. The initial equilibrium point is E₀.

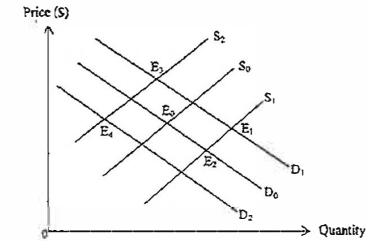


Suppose the rental of shopping premises in Hong Kong rises sharply and the economy in the mainland experiences a recession. The new equilibrium point will be _____.

- A. E₁
- B. E₂
- C. E₃
- D. E₄

2014/DSE/1/14

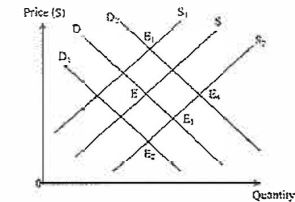
Suppose the equilibrium point of the cosmetic surgery market in Hong Kong is originally at E₀. If people become open-minded to cosmetic surgery while more regulations are imposed on the cosmetic surgery industry, the new equilibrium point will be at _____.



- A. E₁
- B. E₂
- C. E₃
- D. E₄

2016/DSE/1/16

The diagram below shows the supply and demand curves of taxi services in Hong Kong. The original equilibrium is at E.

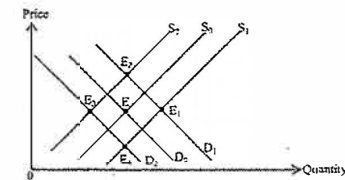


New apps for smartphone such as "Uber" have been developed that enable some private car owners to provide the general public with personalised point-to-point transport service. At the same time, the fuel price has decreased significantly. The new equilibrium point will be at _____.

- A. E₁
- B. E₂
- C. E₃
- D. E₄

2018/DSE/1/16

The diagram below shows the supply and demand curves of air-purifiers. The original equilibrium point is E.

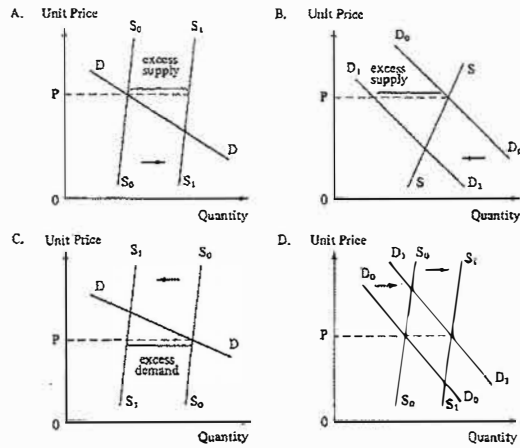


Suppose there is a technological advance in producing air-purifiers. At the same time, the average air pollution index has been increasing over the last decade. The new equilibrium point will be at _____.

- A. E₁
- B. E₂
- C. E₃
- D. E₄

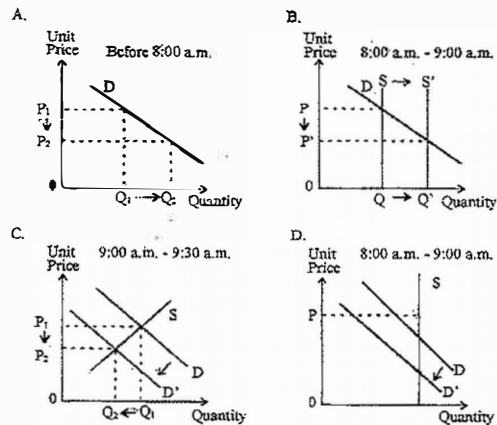
1992/CE/11/23

A large stock of corn is piling up because of a good harvest. Which of the following diagrams can explain this phenomenon?



1997/CE/11/06

The Mass Transit Railway Corporation (MTRC) encourages the adoption of a flexi-time office-hours scheme (彈性上班時間) to reduce the overcrowding of passengers during the rush hours. Hence, passengers using the Nathan Road Route before 8:00 a.m. and between 9:00 a.m. and 9:30 a.m. will have a discount on their MTR fares. Which of the following diagrams could be a result of such a measure of the MTRC?



2005/CE/11/06

It was reported that in late 2004, there were millions of unemployed people in the countryside of the Chinese mainland. On the other hand, the firms in the Pearl River delta faced a labour shortage problem.

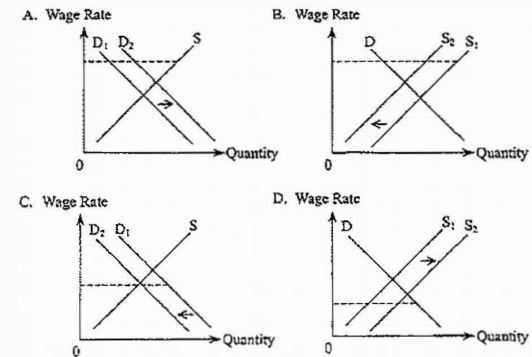
Which of the following would reduce unemployment in the countryside?

- (1) The social welfare benefit of workers in the Pearl River delta improves.
- (2) Labour wages in the Pearl River delta fall.
- (3) Firms in the Pearl River delta move to the countryside.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2005/CE/11/07

While many construction workers are unemployed in Hong Kong, there is a shortage of construction workers in Macau. Suppose a law is passed in Macau which allows the importation of construction workers from Hong Kong to Macau. Which of the following diagrams would best describe the effects of such a law on the labour market of construction workers in Macau?

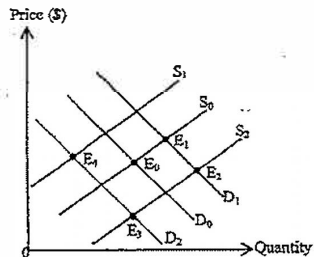


2018/DSE/1/15

The average waiting time for public housing is 4.7 years according to the data from the Housing Authority. Which of the following would lead to an increase in the waiting time for public housing in the long term?

- A. a financial aid offered to low-income families renting private residential flats
- B. a rise in the income limit of applying for public housing
- C. a relaxation of rules regulating the change of land use
- D. a provision of shared-housing units by a billionaire for the applicants of Comprehensive Social Security Assistance Scheme

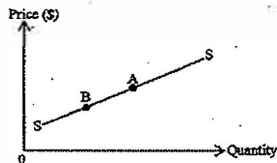
The following is the supply-demand diagram of e-sports equipment. The initial equilibrium point is E_0 .



Suppose the government promotes e-sports by subsidising e-sports equipment manufacturers as well as the e-sports training programmes. The new equilibrium point will be _____.

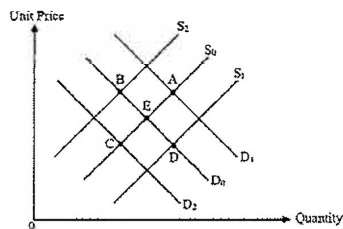
- A. E_1
- B. E_2
- C. E_3
- D. E_4

SS is the supply curve of electric vehicles. Which of the following reasons can best explain the change of the equilibrium position in the electric vehicle market from A to B?



- A. All electric vehicle dealers provided a longer warranty period.
- B. The government removed the subsidies on buying electric vehicles.
- C. The gasoline suppliers greatly raised the price of gasoline.
- D. The cost of building charging stations drastically decreased.

Refer to the following supply-demand diagram for Good Y.



Suppose Good Y is an inferior good and the initial market equilibrium point is E. If there is a fall in the average income level of consumers, the new market equilibrium point will be _____.

- A. A
- B. B
- C. C
- D. D

Short & Structured Questions

1991/CE/1/2(b)(i)

Suppose in Hong Kong the public medical service is perfectly inelastic in supply.

At present the public medical fee is set below the equilibrium level. Suppose the government raises the fee to the equilibrium level. With the aid of a diagram, explain what would happen to the following:

- (i) the quantity of the public medical service demanded by the patients
- (ii) the total revenue from the provision of the public medical service

(8 marks)

1993/CE/1/3(c)

During the rush hours, the number of passengers is greater than the maximum capacity of the MTR service. After a peak congestion fare (繁忙時間附加費) was added to the normal fare, there was less overcrowding of passengers during those hours. Explain this situation with the aid of a diagram.

(8 marks)

1995/CE/1/9(a)

The World Cup of 1994 was held in the USA. People from all over the world went to the US to watch the matches.

The final match was held in Los Angeles. The rental accommodation (出租住宿單位) in that city was fixed in supply. Due to the high demand, many disappointed football fans could not rent an accommodation unit because the rental price was not high enough.

- (i) Draw a well-labelled supply-demand diagram to show the above situation. (2 marks)
- (ii) If the rental price had been raised to a level where the demand had met the fixed supply, how would the rental income of the accommodation owners be different from that in (a)(i)? Explain with the aid of a diagram. (5 marks)

1999/CE/1/11(a)

Some people believe that the number of taxis on roads can never satisfy the demand and that a rise in taxi fares would increase the sales revenue of the taxi service.

Explain this viewpoint with the aid of a supply-demand diagram.

(8 marks)

1990/CE/1/4(b)

Suppose there is a fall in local people's desire for consumption and unsold stocks are piling up in the garment industry. Illustrate this situation with the aid of a diagram.

(6 marks)

2004/CE/1/10(a)

In 2003, SARS (severe acute respiratory syndrome) seriously affected Hong Kong's economy.

At the outbreak of SARS, airlines did not reduce air fares or the number of flights. As a result, there were a lot of empty seats on planes flying to Hong Kong. With the aid of a diagram, explain the above economic phenomenon, and explain how the total revenue of these airlines was affected.

(8 marks)

1990/CE/1/5(c)(ii)

The government has announced a \$127 billion project for building a new airport at Chek Lap Kok and improving the harbour facilities.

Explain the effects on

- (I) the demand for
- (II) the supply of

residential flats in and around Kowloon City after the removal of the airport to the new site. (6 marks)

1991/CE/1/4(c)

Many construction companies in Hong Kong say that they are facing the problem of 'labour shortage'.

(i) What is meant by 'shortage' in economics? Illustrate with a diagram. (5 marks)

(ii) Suppose the wage rate of construction workers remains unchanged. With the aid of separate diagrams, explain how

(I) a recession (5 marks)

(II) the importation of construction workers (5 marks)

would lessen the 'labour shortage' problem of the construction companies.

1992/CE/1/4(d)

Owing to the construction of the new airport, more companies have decided to redevelop their factories in Tsuen Wan into hotels and shopping centres.

(i) Explain the effect on **BOTH** the demand for and supply of hotels and shopping centres in Tsuen Wan in the coming few years. (6 marks)

(ii) With the aid of a supply and demand diagram, explain why the prices of the properties in (d) (i) might still increase. (6 marks)

1993/CE/1/4(b)(ii)

Suppose a large number of Japanese TV sets are smuggled from Hong Kong to China and sold for HK\$40 million. With the aid of a diagram, explain how the equilibrium price of the TV sets in China will be affected. (4 marks)

1995/CE/1/11(a)

After the completion of a new highway, the travelling time between Tin Shui Wai and Central will be much shortened. In addition, more land in Tin Shui Wai will be provided for building private housing.

Mr. Ip thinks that the prices of private housing in Tin Shui Wai will increase due to the combined effects of the above government policies. With the aid of a supply-demand diagram, explain the circumstance under which Mr. Ip would be right. (7 marks)

1996/CE/1/12(a)

The manufacturing workers in Hong Kong are facing the problem of a rising unemployment rate. Assume that manufacturing workers are not willing to accept lower wage rates. With the aid of separate diagrams, explain how **EACH** of the following would lead to rising unemployment in the manufacturing sector.

(i) declining secondary production because of a structural change in the economy. (5 marks)

(ii) importation of manufacturing workers. (5 marks)

1997/CE/1/2

Workers in the manufacturing sector in Hong Kong have an unemployment problem. With the aid of a supply-demand diagram, explain **ONE** situation under which the number of unemployed manufacturing workers may decrease. (6 marks)

1997/CE/1/9(b)

Suppose the government builds a railway in northwest New Territories.

With the aid of a diagram, explain the effect of this new railway on the total revenue of mini-buses operation on the same route. (6 marks)

1998/CE/1/9(c)

Mr. Wong employs some imported workers in the restaurant.

(i) With the aid of a diagram, explain the effect of importation of workers on the equilibrium wage rate of restaurant workers in Hong Kong. (4 marks)

(ii) Use the same diagram to illustrate the effect of importation of workers on the employment level of *local restaurant workers*. (3 marks)

1998/CE/1/10(b)

Suppose the government punishes both the sellers and buyers of illegal computer software. With the aid of separate diagrams, explain how this would affect the market price of

(i) illegal computer software. (6 marks)

(ii) legal computer software. (4 marks)

1999/CE/1/2

Study the following news report:

Last year people were afraid of eating poisonous seafood. Though the import volume of seafood decreased, its selling price remained the same.

Explain the phenomenon mentioned in the news report with the aid of a supply-demand diagram. (6 marks)

1999/CE/1/10(a)

There is a serious unemployment problem in Hong Kong.

(i) Given a fixed wage rate, explain why a decrease in the profits tax rate may reduce unemployment. (3 marks)

(ii) Draw a supply-demand diagram for the labour market in (a)(i). Explain, step by step, how the diagram is drawn. (6 marks)

2000/CE/1/2

David: 'When the price of chocolates increases, people will buy fewer chocolates.'

Amy: 'No, I don't think so. The price of chocolates has increased, but the quantity of chocolates bought has also increased.'

Explain, with the aid of separate diagrams, why both of them can be correct (7 marks)

2000/CE/1/9(b)(i)

Some petroleum companies complained that their business was affected because some drivers bought gasoline from smugglers who evaded import duties.

With the aid of a diagram, explain how the smuggling of gasoline would affect the sales revenue of petroleum companies. (7 marks)

2001/CE/1/10(c)(i)

Bank A raises capital by issuing shares to the public. The quantity and subscription price (認購價格) of these shares are fixed and not all people who apply for these shares are successful in their application.

Explain the economic phenomenon described above with the aid of a diagram. Also indicate in the diagram the amount of capital raised. (7 marks)

2001/CE/1/11(d)

There is an excess supply of private housing at the price set by private housing developers. The government declares that the supply of housing under the Home Ownership Scheme will be reduced.

Suppose the price of private housing remains unchanged. With the aid of a diagram, explain how this new government housing policy would affect the sales revenue of private housing developers. (7 marks)

2002/CE/1/2

Suppose the Organization of Petroleum Exporting Countries cuts its oil production. At the same time, the demand for automobiles decreases.

With the aid of a diagram, explain under what condition the price of gasoline would increase. (7 marks)

2002/CE/1/10(b)

Suppose the banks decrease their interest rates on home mortgage loans. With the aid of a diagram, explain how this would affect the total expenditure on the purchase of private housing. (6 marks)

2002/CE/1/11(b)

There are student places not yet filled in Miss Wong's tutorial school. The school decides to launch an advertising campaign to recruit more students and to keep the tuition fee unchanged.

With the aid of a diagram, explain how a successful advertising campaign would fill all the places and increase the total revenue of the school. (7 marks)

2003/CE/1/1

A reporter wrote: '...The government has not allowed families with an income of more than \$21 000 a month to buy a living unit under the Home Ownership Scheme (HOS). Nevertheless, there are not enough living units under this scheme available for applicants.'

(a) Use your knowledge of demand and supply to describe the HOS living units market. Illustrate your answer with the aid of a diagram.

(b) If the income restriction on the applicants is lowered to \$18 000, explain the effect on the HOS living units market by using the diagram in (a). (7 marks)

2003/CE/1/10(b)

Suppose the price of paper falls drastically and the number of school children increases.

(i) Explain why the supply of and the demand for textbooks would be affected by these changes.
(ii) With the aid of a diagram, explain under what condition the price of textbooks would decrease. (8 marks)

2003/CE/1/11(d)

With the aid of a diagram, explain how the closing down of IT companies would affect the wage rate and employment level of the professionals in the IT industry. (6 marks)

2004/CE/1/3

Recently, digital cameras have become popular for taking photographs. With the aid of a diagram, explain how this would affect consumers' total expenditure on rolls of film. (6 marks)

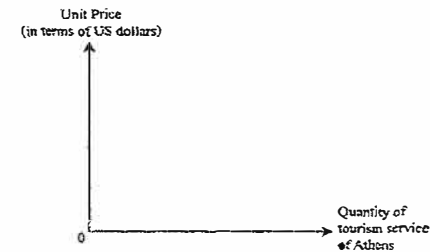
2005/CE/1/1

During the period of the 2004 Olympic Games, the tourism business of the host city Athens was not as good as expected. The causes were generally believed to be an appreciation of the euro and also that tourists were afraid of a terrorist attack.

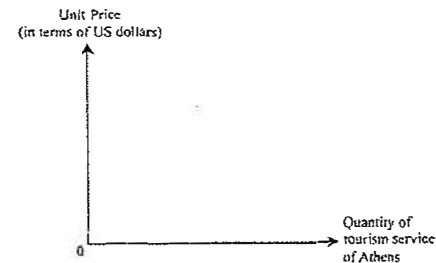
One of the above two causes would lead to a change in demand for, while the other would lead to a change in the quantity demanded of, the tourism service of Athens.

With the aid of the following two diagrams, explain separately the effect of each of the above two causes. (5 marks)

(i) The effect of an appreciation of the euro:



(ii) The effect of a fear of a terrorist attack:



2006/CE/1/9(a)

Each year, during the tourism peak season of the National Day golden week in October, a large number of tourists from Mainland China visit Hong Kong.

Many of these tourists stay at local 3-star hotels. Assume that the room charges of these hotel are the same at the same points in time.

- (i) Every September these hotels have vacant rooms. Draw a supply-demand diagram in Figure 2 for this situation. Explain your answer. (3 marks)
- (ii) As compared to September, these hotels have fewer vacant rooms during the National Day golden week in October even though they raise their room charges during this week.

Indicate the above changes in the supply-demand situation of these hotel rooms in Figure 2. Explain your answer. (6 marks)

Figure 2

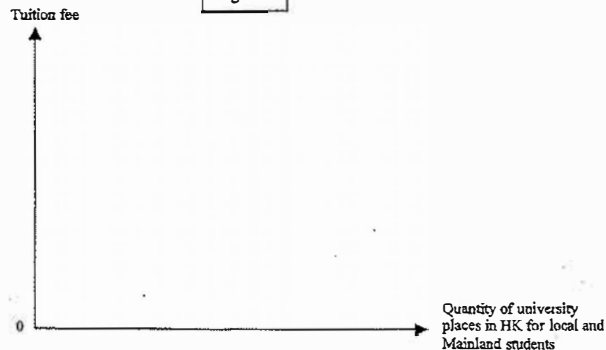


2007/CE/1/8(a)

The universities in Hong Kong do not only admit local students. Since last year, these universities have begun to admit a large number of top-quality Mainland students. Suppose all students pay the same tuition fees.

Because of competition from these Mainland students, the problem of shortage of university places in Hong Kong has worsened. Draw a supply-demand diagram in Figure 1 to illustrate the above change in the shortage. Explain your answer. (6 marks)

Figure 1



2008/CE/1/1

Rice is a staple food in Hong Kong. Refer to the following table.

Year	Total consumption of rice (ton) in Hong Kong
1980	353 310
1990	351 182
2000	322 223

During this period of time, the size of population of Hong Kong has increased. Explain TWO demand-side factors that would lead to the above change in rice consumption. (4 marks)

2010/CE/1/1

One month after the first phase implementation of an environmental levy on plastic shopping bags, an increase in the quantity sold of non-woven reusable bags (不織布袋), which are not subject to the levy, was reported.

Based on the above information, explain the change in the total revenue of non-woven reusable bags with the aid of a supply-demand diagram. (5 marks)

2010/CE/1/1(a)

The 2008 financial tsunami had a huge impact on Economy A.

Given a fixed wage rate, explain with the aid of a supply-demand diagram why a decline in the business of the financial sector due to the financial tsunami would increase unemployment in this sector. Also indicate in the diagram the loss in total wage earnings of the employees in this sector. (9 marks)

2012/DSE/II/12(c)

The local property market is considered to be overheated. The government has decided to re-introduce the Home Ownership Scheme in which eligible citizens can purchase a living unit under the scheme at a great discount.

- (i) With the aid of a demand-supply diagram, explain how the re-introduction of the Home Ownership Scheme would cool down the private housing market. (5 marks)
- (ii) **WITHOUT** the aid of a diagram, explain how the mortgage interest rate could be adjusted to cool down the private housing market. (3 marks)

2015/DSE/II/4(b)

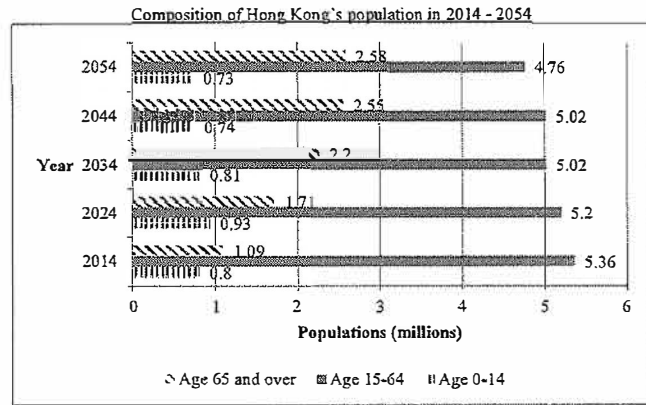
Read the following news extract.

The strong preference for small flats has pushed the prices of the flats under 400 square feet to a new high in the past few months. It is expected that more and more small flats will be available for sale in the coming future.

Explain how the supply of large flats would be affected by the strong preference for small flats. (2 marks)

2018/DSE/11/13(c)

The source below shows Hong Kong's population projection.



Susan is a local S6 graduate and is considering enrolling a programme in either primary education or nursing in Hong Kong. If future income is her major concern, which programme would you recommend to her? Explain your choice with reference to the above source. (4 marks)

MARKING SCHEME

1995/CE/11/08 A	1994/CE/11/07 B	1996/CE/11/04 D	1991/CE/11/12 C	2007/CE/11/04 C (79%)
2001/CE/11/04 D	1994/CE/11/58 A	1996/CE/11/56 A	1993/CE/11/26 B	2008/CE/11/05 A (56%)
2015/DSE/11/10 D (60%)	1996/CE/11/06 B	1998/CE/11/09 B	1994/CE/11/06 C	2009/CE/11/07 A (83%)
1992/CE/11/21 C	2002/CE/11/07 D (82%)	2000/CE/11/12 D	1995/CE/11/13 A	2010/CE/11/08 D (78%)
1999/CE/11/05 C	2003/CE/11/08 C (58%)	2001/CE/11/03 C	1996/CE/11/05 A	2012/DSE/11/13 D (78%)
2000/CE/11/09 C	2004/CE/11/05 D (60%)	2001/CE/11/05 A	1997/CE/11/05 B	2012/DSE/11/15 B (80%)
2009/CE/11/05 B (47%)	2005/CE/11/04 D (89%)	2003/CE/11/14 C (43%)	1998/CE/11/08 C	2013/DSE/11/1 B (87%)
2014/DSE/11/12 A (53%)	2006/CE/11/07 B (45%)	2004/CE/11/06 D (31%)	1998/CE/11/10 D	2014/DSE/11/14 C (84%)
2016/DSE/11/14 A (55%)	2007/CE/11/10 B (54%)	2006/CE/11/06 C (55%)	1999/CE/11/12 C	2016/DSE/11/16 B (71%)
2016/DSE/11/17 A (67%)	2008/CE/11/04 D (63%)	2006/CE/11/08 C (65%)	2000/CE/11/07 B	2018/DSE/11/16 A (82%)
2018/DSE/11/13 C (74%)	2010/CE/11/06 B (78%)	2007/CE/11/05 D (59%)	2001/CE/11/10 C	1992/CE/11/23 A
1990/CE/11/17 D	2015/DSE/11/15 A (58%)	2009/CE/11/06 D (60%)	2002/CE/11/09 C (72%)	1997/CE/11/06 A
1991/CE/11/24 A	2016/DSE/11/13 D (64%)	2013/DSE/11/12 A (25%)	2002/CE/11/50 D (51%)	2005/CE/11/06 B (77%)
1992/CE/11/22 A	2017/DSE/11/14 C (59%)	2015/DSE/11/14 A (69%)	2004/CE/11/07 C (79%)	2005/CE/11/07 D (70%)
1992/CE/11/42 B	1990/CE/11/17 D	2017/DSE/11/17 D (62%)	2005/CE/11/05 C (84%)	2018/DSE/11/15 B (47%)
1993/CE/11/18 A	1993/CE/11/57 B	2018/DSE/11/20 D (82%)	2006/CE/11/05 A (61%)	2019/DSE/11/13 B
2019/DSE/11/17 B				
2020/DSE/11/14 A				

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/1/2(b)(i)

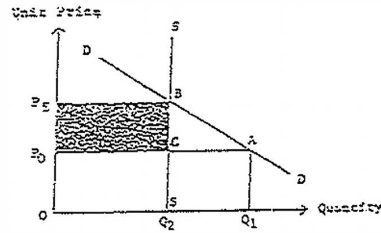
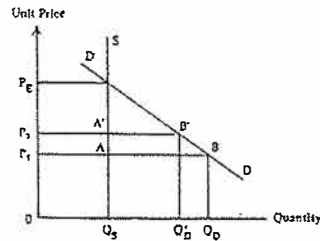


Diagram:

- $P_0 \uparrow$ to P_1 (equilibrium price)
- $Q_1 \downarrow$ to Q_2
- shaded area = additional revenue

- (i) According to the law of demand, the quantity demanded decrease. (1)
- (ii) The total revenue increase (from area $0Q_2CP_0$ to area $0Q_2BPE$) because the fee is raised while the quantity remains unchanged. (3)

1993/CE/1/3(c)



- P_E : equilibrium price
- P_1 : original price
- P_2 : new price

Correct graph:

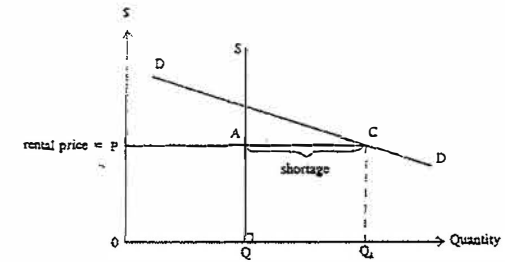
- Vertical supply curve
- AB = excess demand at P_1
- $A'B'$ = excess demand at P_2

Correct verbal explanation:

- The supply of MTR service is perfectly inelastic (at maximum capacity). (1)
- The initial fare (P_1) is set below the equilibrium level, so there is an excess demand. (2)
- The higher fare (P_2) is still below the equilibrium level, but the excess demand will become smaller. (2)

1995/CE/1/9(a)

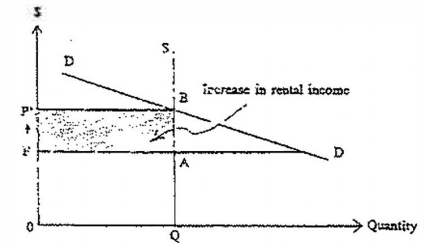
(i)



Candidates should indicate on the graph:

- a vertical supply curve
- the rental price P was below the equilibrium price / shortage of AC

(ii)



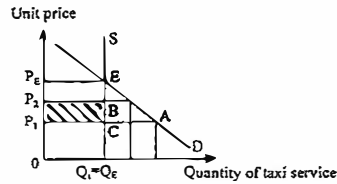
Candidates should indicate on the graph:

- Correct indication of the rental income increase on the graph (i.e. area ABP_1P_2).

Verbal elaboration:

- The price increases to the equilibrium price.
- There is no change in the quantity transacted.
- The rental income increases.

1999/CE/11(a)



Graph showing:

- $P_1 < P_E$ (1)
- $P_1 < P_2 < P_E$ (1)
- no change in Q_1 (1)
- total revenue increases from $P_1 \times Q_1$ to $P_2 \times Q_1$ / additional revenue is $P_1 P_2 BC$ (1)

Verbal explanation:

- At P_1 , there is an excess demand for taxi service. (1)
- After a rise in taxi fares from P_1 to P_2 (still below equilibrium price), there is still an excess demand. (1)
- The quantity transacted remains unchanged. (1)
- The total revenue increases from $P_1 \times Q_1$ to $P_2 \times Q_1$. (1)

1990/CE/4(b)

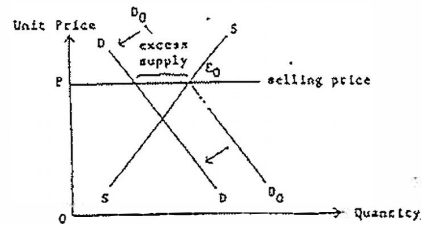


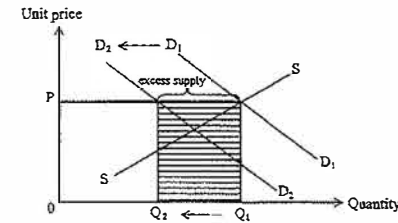
Diagram:

- demand curve shifts to the left (1)
- P unchanged (1)
- excess supply (1)

Elaboration:

- The demand decreases (because of the fall in desire for consumption). (1)
- There will be an excess supply at the original selling price P. (2)

2004/CE/110(a)



Indicate in the diagram:

- demand curve shifted to the left (1)
- P remained constant (1)
- Q decreased from Q_1 to Q_2 (1)
- excess supply (1)
- TR (= $P \times Q$) decreased from PQ_1 to PQ_2 / loss in revenue (1)

[Remark. The above analysis starts from an equilibrium position. One can also start from a situation with excess supply or excess demand where similar analysis still applies.]

Verbal explanation:

- (Due to the outbreak of SARS,) there is a decrease in demand for airlines services. (1)
- The quantity transacted decreased at the constant price (1)
- Therefore, total revenue decreased. (1)

1990/CE/5(c)(ii)

- (I) The demand would probably increase, because the quality of living in Kowloon City will be improved (nuisances disturbances and danger caused by the old airport do not exist). (3)

OR

- The demand would probably decrease, because new airport spreads the population to Lantau and Western part of Kowloon and the N.T., the convenience of Kowloon City decreases. (3)

- (II) The supply would probably increase, because removal of height limit / reconstruction of buildings / increase in supply of land released from the old airport (3)

1991/CE/14(c)

(i)

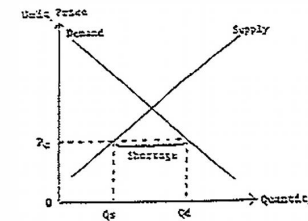


Diagram:

- P (lower than equilibrium) (1)
- shortage (1)

A shortage or excess demand arises when the price is below the equilibrium level. (1)

At such a price, the quantity demanded is larger than the quantity supplied and the difference between Q_d and Q_s , i.e., (2)

$Q_d - Q_s$, is a shortage.

(ii) (1)

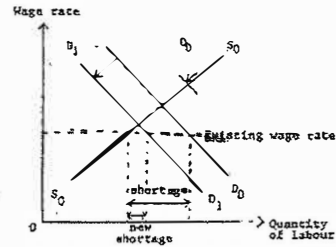


Diagram:

- demand curve shifts to the left
- P unchanged
- smaller shortage

The (derived) demand for labour will fall if there is a recession.
The excess demand will become smaller.

(1)
(1)
(1)

(11)

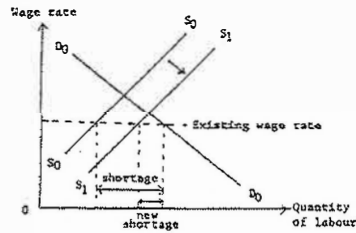


Diagram:

- supply curve shifts to the right
- P unchanged
- smaller shortage

The supply of labour will increase if foreign workers are imported.
The excess demand will become smaller.

(1)
(1)
(1)

1992/CE/P4(d)

(i) The demand increases, because

(Construction of the new airport will bring forth the following.)
more business and investment in Tsuen Wan \Rightarrow demand for shopping centres \uparrow

OR

more confidence in the future of Hong Kong \Rightarrow people expect the value of these properties \uparrow

(1)

(2)

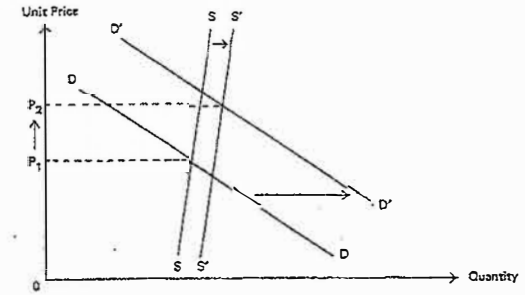
The supply increase, because

more and more factories there will be redeveloped into hotels and shopping centers

(1)

(2)

(ii)



Indicate in the diagram:

- supply curve shifts to the right
- demand curve shifts to the right
- larger shift of the demand curve and a rise in price

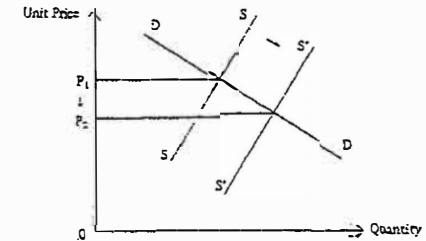
(1)
(1)
(2)

Verbal elaboration:

The increase in demand is larger than the increase in supply.

(2)

1993/CE/P4(b)(ii)



Indicate in the diagram:

- supply curve shifts to the right
- P \downarrow

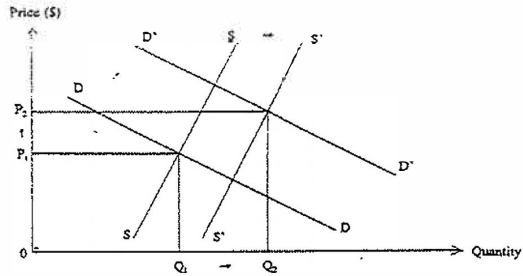
(1)
(1)

Verbal elaboration:

As the supply of TV sets in China increases (because of the smuggling),
the price will decrease.

(1)
(1)

1995/CE/11(a)



Candidates should show on the graph:

- demand curve shifts to the right
- supply curve shifts to the right
- a greater shift of the demand curve

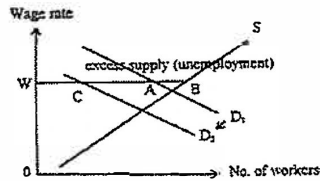
Verbal elaboration:

The demand increases (because of easy traffic).
The supply increases (because more land is available).
The increase in demand is larger than the increase in supply.

- (1)
- (1)
- (1)
- (1)
- (1)
- (2)

1996/CE/12(a)

(i)



Indicate in the diagram:

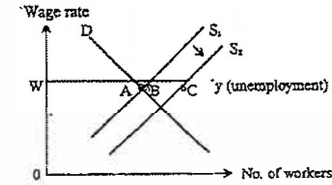
- at W (higher than equilibrium), excess supply = AB
- demand curve shifts to the left
- new excess supply = BC

Elaboration:

The (derived) demand for manufacturing workers decreases.
At the going wage rate, there will be a greater excess supply.

- (1)
- (1)
- (1)
- (1)
- (1)
- (1)

(ii)



Indicate in the diagram:

- at W (higher than equilibrium), excess supply = AB
- demand curve shifts to the left
- new excess supply = AC

- (1)
- (1)
- (1)

Elaboration:

The supply of manufacturing workers increases.
At the going wage rate, there will be a greater excess supply.

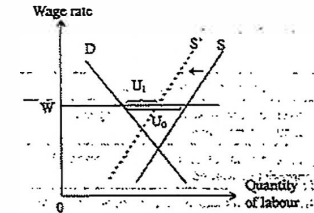
- (1)
- (1)

1997/CE/12

Initial unemployment problem exists when the wage rate is higher than the equilibrium wage rate.

(1)

Answer 1



Indicate in the diagram:

- wage rate $W >$ equilibrium wage rate
- supply curve shifts to the left
- unemployment drops from U_0 to U_1

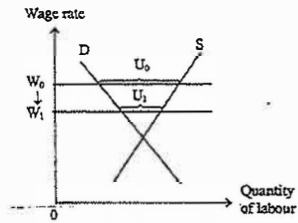
- (1)
- (1)
- (1)

Elaboration:

If some workers have to leave the industry and find jobs in other industries,
the supply of labour will decrease (and reduce unemployment).

- (1)
- (1)

Answer 2



Indicate in the diagram:

- wage rate $W_0 >$ equilibrium wage rate
- W_0 falls to W_1
- unemployment drops from U_0 to U_1

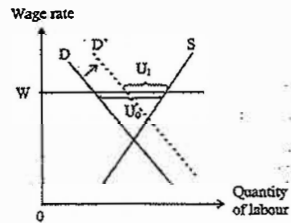
(1)
(1)
(1)

Elaboration:

Workers of the industry have to accept lower wage rates.
The excess supply of labour (i.e. quantity supplied in excess of quantity demanded) will fall.

(1)
(1)

Answer 3



Indicate in the diagram:

- wage rate $W >$ equilibrium wage rate
- demand curve shifts to the right
- unemployment drops from U_0 to U_1

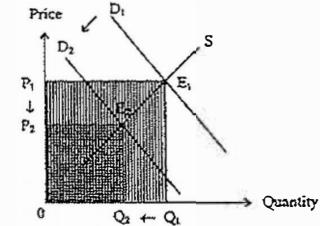
(1)
(1)
(1)

Elaboration:

If there is more business, or labour productivity of the industry increases, the derived demand for labour will increase (, and reduce unemployment).

(1)
(1)

1997/CE/1/9(b)



Candidates should show on the graph:

- demand curve shifts to the left
- $P \downarrow$ & $Q \downarrow$
- loss in total revenue = area $E_1Q_1Q_2E_2P_2P_1$

(1)
(1)
(1)

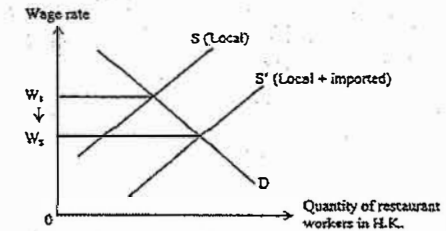
Verbal explanation:

The demand for minibus service will decrease, because
- the new railway service is a substitute of minibus service.
Total revenue will decrease (from P_1Q_1 to P_2Q_2).

(1)
(1)
(1)

1998/CE/1/9(c)

(i)



Candidates should show on the graph:

- supply curve shifts to the right
- $W \downarrow$

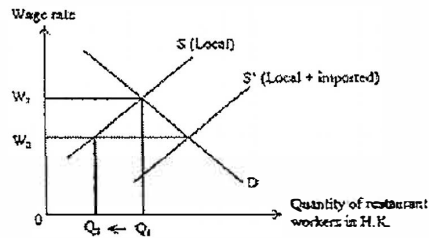
(1)
(1)

Verbal explanation:

There is an increase in the supply of restaurant workers.
The equilibrium wage rate will fall.

(1)
(1)

(ii)



Verbal explanation:

Q_1 is the original employment level of local restaurant workers.

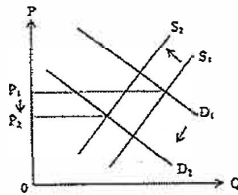
Q_2 is the new employment level of local restaurant workers.

The employment level decreases. (or diagram showing $Q_1 \Rightarrow Q_2$)

- (1)
- (1)
- (1)

1998/CE/1/10(b)

(i)



Candidates should show on the graph:

- demand curve shifts to the left
- supply curve shifts to the left

- (1)
- (1)

Verbal explanation:

The demand for illegal computer software decreases.

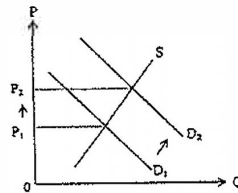
The supply decreases.

The market price is uncertain.

depending on the extent of decrease in both demand and supply.

- (1)
- (1)
- (1)
- (1)

(ii)



Candidates should show on the graph:

- demand curve shifts to the right
- $P \uparrow$

- (1)
- (1)

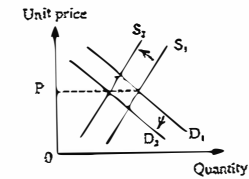
Verbal explanation:

The demand for legal computer software increases (because it is a substitute of illegal software).

As a result, the market price increases.

- (1)
- (1)

1999/CE/1/2



Graph showing:

- demand curve shifts to the left
- supply curve shifts to the left
- P (determined by D_2 and S_2) remains unchanged

- (1)
- (1)
- (1)

Verbal explanation:

There is a fall in demand (because people were afraid of eating poisonous seafood).

There is also a fall in supply (because the import volume of seafood decreased).

As the fall in demand was equal to the fall in supply, the price remained the same.

- (1)
- (1)
- (1)

1999/CE/1/10(a)

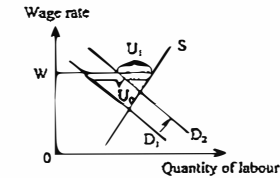
(i) Firms' profits after tax will rise,

leading to a higher incentive to invest (or an increase in investment).

The (derived) demand for labour is likely to increase.

- (1)
- (1)
- (1)

(ii)



Graph showing:

- demand curve shifts to the right
- a fixed wage rate
- a larger excess supply (from U_0 to U_1)

- (1)
- (1)
- (1)

Verbal explanation:

Unemployment exists when the fixed wage rate is higher than the equilibrium wage rate.

As the derived demand for labour increases,

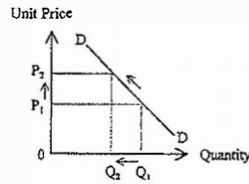
(given the unchanged wage rate,) excess supply or unemployment decreases.

- (1)
- (1)
- (1)

2000/CE/1/2

David refers to the law of demand / a movement along a downward sloping demand curve.

(1)



Indicate in the graph:

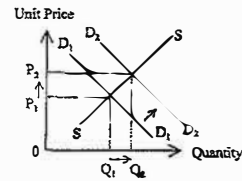
- a downward sloping demand curve
- a rise in price and a corresponding decrease in the quantity demanded

(1)

(1)

Amy refers to (a change in the equilibrium position due to) an increase in demand / a shift of the demand curve.

(1)



Indicate in the graph:

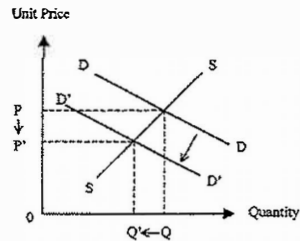
- rightward shift of demand curve
- an increase in equilibrium price
- an increase in equilibrium quantity

(1)

(1)

(1)

2000/CE/1/9(b)(i)



Indicate in the graph:

- demand curve shifts to the left
- $PQ \downarrow$ to $P'Q'$

(1)

(1)

Verbal explanation:

The demand for legal petroleum decreases, because a substitute is available.

(1)

(1)

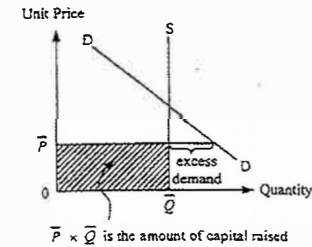
Both the price and the quantity transacted will fall.

(1)

The total revenue will decrease.

(1)

2001/CE/1/10(c)(i)



Indicate in the graph:

- a vertical supply curve
- the price is set below the equilibrium price
- excess demand
- amount of capital raised

(1)

(1)

(1)

(2)

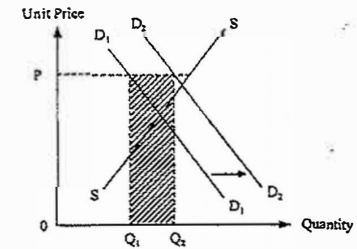
Verbal explanation:

The selling price is fixed at a level below the equilibrium price, at which the quantity demanded is larger than the quantity supplied / there is an excess demand.

(1)

(1)

2001/CE/1/11(d)



Indicate in the graph:

- fixed price P is set above the equilibrium price
- demand curve shifts to the right
- Shaded area = increase in sales revenue

(1)

(1)

(1)

Verbal explanation:

The demand for private housing will increase, because public housing is a substitute.

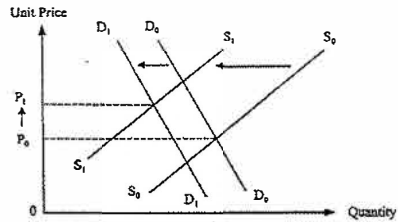
(1)

(1)

(Given constant P,) the quantity transacted will increase, and the total revenue will increase.

(2)

2002/CE/1/2



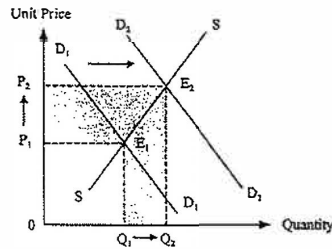
Indicate in the graph:

- supply curve shifts to the left (1)
- demand curve shifts to the left (1)
- correct indication of the increase in equilibrium price with the leftward shift of the supply curve > the leftward shift of the demand curve (1)

Verbal explanation:

There is a decrease in the supply of gasoline (because gasoline is an oil product). (1)
 There is a decrease in the demand for gasoline, because (1)
 gasoline and automobiles are complementary goods. (1)
 The change in supply is greater than the change in demand. (1)

2002/CE/1/10(b)



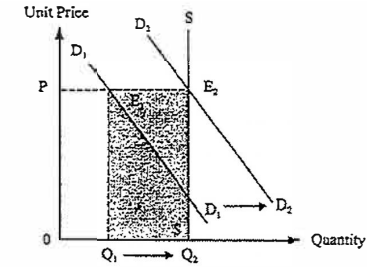
Indicate in the graph:

- demand curve shifts to the right (1)
- price ↑ and quantity transacted ↑ (1)
- change in total expenditure = $P_2Q_2 - P_1Q_1$ (1)

Verbal explanation:

The demand increases (because the cost of borrowing is lowered). (1)
 Both the price and the quantity transacted increase. (1)
 Total expenditure increases. (1)

2002/CE/1/11(b)



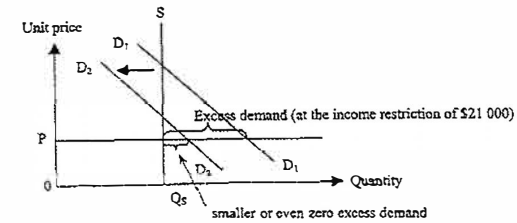
Indicate in the graph:

- tuition fee level $P >$ equilibrium price (1)
- rightward shift of the demand curve (1)
- D_1 shifts to D_2 or the right of D_1 (1)
- increase in total revenue = area $E_1E_2Q_2Q_1$ (1)

Verbal explanation:

The demand increases (because more students are attracted by the advertisement). (1)
 The quantity transacted increases. (1)
 The excess supply decreases from Q_1Q_2 to zero (i.e. disappeared). (1)

2003/CE/1/1



(a) Indicate in the diagram:

- a constant price (P) below the equilibrium price (1)
- excess demand at the income restriction of \$21 000 (demand is D_1) (1)

Verbal explanation:

The fixed price is below the equilibrium price. (1)
 There is an excess demand at the beginning (1)

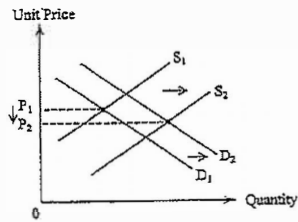
(b) Indicate in the diagram:

- demand curve shifts to the left (1)
- resulting in a smaller excess demand or even no more excess demand (1)

Verbal explanation:

The demand falls due to further income restriction. (1)
 (The excess demand will be smaller or even eliminated). (1)

2003/CE/1/10(b)



(i) The supply increases, because the cost of production (i.e. input price) increases. The demand increases, because there is a larger number of buyers

(1)
(1)
(1)
(1)

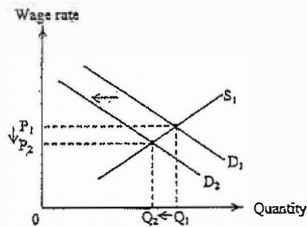
(ii) Indicate in the diagram:
- supply curve shifts to the right
- demand curve shifts to the right
- larger shift of the supply curve and a fall in price

(1)
(1)
(1)

Verbal elaboration:
The increase in supply is larger than the increase in demand.

(1)

2003/CE/1/11(d)



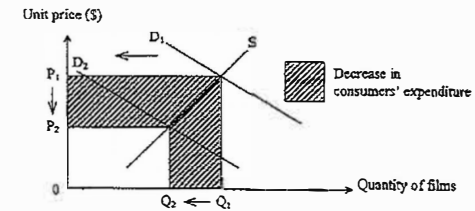
Indicate in the diagram:
- demand curve shifts to the left
- P ↓
- Q ↓

(1)
(1)
(1)

Verbal elaboration:
The (derived) demand for labour decreases. The wage rate decreases, and employment decreases

(1)
(1)
(1)

2004/CE/1/3



Indicate in the diagram:
- D₁ shifts to D₂
- P ↓ & Q ↓
- Total expenditure ↓

(1)
(1)
(1)

Verbal elaboration:
The demand for films decreases, because

(1)

traditional cameras and films are complements.

OR

The demand for traditional cameras decreases, because digital cameras are substitutes of traditional cameras.

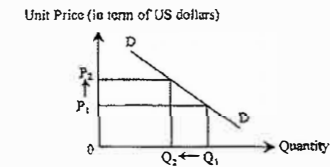
(1)

Consumers' total expenditure on films decreases

(1)

2005/CE/1/1

(i)



Indicate on the diagram:
- P ↑
- Q ↓

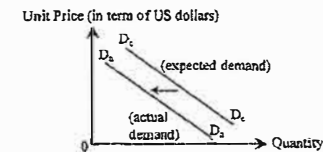
(1)
(1)

Verbal elaboration:

[A rise in exchange rate of the euro dollar would lead to a rise in price (in terms of US dollars) of the tourism service.] the quantity demanded of the tourism service would decrease.

(1)

(ii)



Indicate on the diagram:
- leftward shift of the demand curve

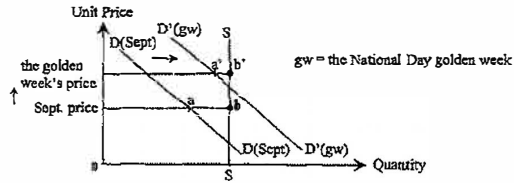
(1)

Verbal elaboration:

[If tourists were afraid that they might be attacked by the terrorists.] their demand for the tourism service would decrease.

(1)

2006/CE/1/9(a)



(i) Diagram:

- Sept. price > equilibrium price
- ab = excess supply in Sept.

(1)
(1)

Verbal Elaboration:

- initial excess supply in Sept.

(1)

(ii) Diagram:

- demand curve shifts to the right to position D'D' in the golden week.
- price raised to a new level (there is an excess supply at the new price)
- excess supply in the golden week = a'b'
- a'b' < ab

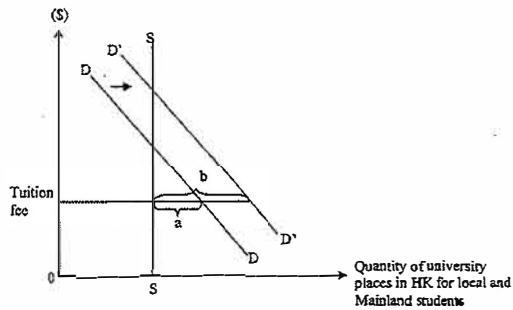
(1)
(1)
(1)
(1)

Verbal Elaboration:

- There is an increase in demand (because of the increasing number of tourists).
- The excess supply becomes smaller in the golden week.

(1)
(1)

2007/CE/1/8



Indicate in the diagram:

- tuition fee is below the equilibrium price
- a is the original excess demand
- rightward shift of the demand curve
- b is the new excess demand

(1)
(1)
(1)
(1)

Verbal elaboration:

- There is an increase in demand (because of the increasing number of mainland students).
- The tuition fee is below the equilibrium level / remains unchanged.
- (resulting in a larger excess demand.)

(1)
(1)

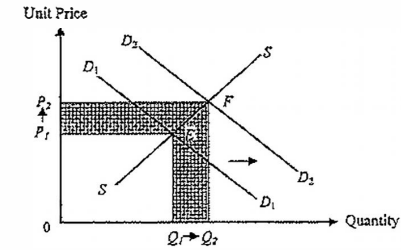
2008/CE/1/1

- number of substitutes: more substitutes are available
 - price of substitutes: a fall in the price of substitutes
 - income of consumers: an increase in income and rice is an inferior good
 - taste of consumers: a change in taste against eating rice
- [Mark the FIRST TWO points only.]

(2@. max: 4)

2010/CE/1/1

Non-woven Reusable Bags



Indicate in the diagram:

- demand curve shifts to the right
- area OP₂FQ₂ > area OP₁EQ₁

(1)
(1)

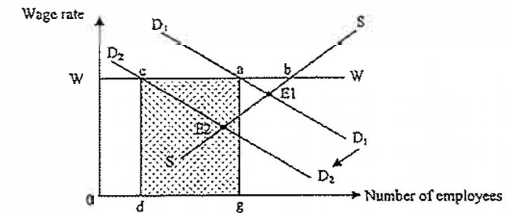
Verbal elaboration:

- The demand for non-woven reusable bags increases, because
- they are substitutes of plastic shopping bags
- Therefore, the total revenue increases.

(1)
(1)
(1)

2010/CE/1/11(a)

Financial Sector's Labour Market



Indicate in the diagram:

- wage rate W above the initial equilibrium wage rate at E₁
- initial excess supply ab
- D₁ shifts to D₂
- cb = the new excess supply
- area cdga = total wage loss

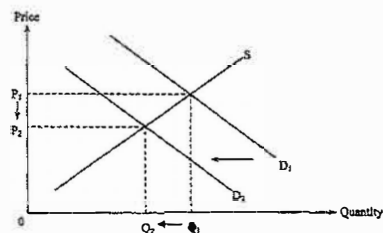
(1)
(1)
(1)
(1)
(1)

Verbal elaboration:

- Initially, the wage rate is higher than the initial equilibrium wage rate.
- There is an excess supply of labour / the quantity supplied is greater than the quantity demanded (by ab).
- The demand for labour falls.
- The new excess supply is cb (which is larger than the initial excess supply ab).

(1)
(1)
(1)
(1)

2012/DSE/11/12(c)
(i)



Indicate in the diagram:

- D shifts to the left
- P ↓

(1)
(1)

Verbal Elaboration:

It would result in a drop in demand for private housing, because public housing (living units under HOS) and private housing are substitutes. The price of private housing drops.

(1)
(1)
(1)

- (ii) A rise in the mortgage interest rate could cool down the property market, because some people fail (or are unwilling) to borrow at a higher interest rate. Therefore, the demand for private housing drops.

(1)
(1)
(1)

2015/DSE/11/14(b)

The supply of large flats would drop, because small flats and large flats are in competitive supply.

(1)
(1)

2018/DSE/11/13(c)

Nursing, because

the demand for medical service would rise as a result of the aging population, and the demand for nurse is the derived demand for medical service.

The expected future income of a nurse should thus be higher (than that of someone working in primary education).

(1)
(1)
(1)
(1)

SECTION 7: DEMAND AND SUPPLY (II)

7.1 ELASTICITIES OF DEMAND & SUPPLY

Multiple Choice Questions

1990/CE/11/05

Suppose there is a good harvest of apples this year. Under which of the following conditions will apple growers earn more income?

- A. They sell more apples.
- B. The demand for apples is elastic.
- C. The supply of apples is inelastic.
- D. The government fixes a minimum price on apples.

1990/CE/11/26

After the launching of an advertising campaign, both the price and the quantity sold of a product increase. Which of the following statements can explain this?

- A. The demand for the product is inelastic.
- B. The supply of the product is elastic.
- C. The demand for the product increases.
- D. The supply of the product decreases.

1991/CE/11/19

Price	Quantity Demanded (units)	Total Revenue
\$2	10	\$20
\$4	6	\$24
\$6	4	\$24
\$8	3	\$24
\$10	1	\$10

The elasticity of demand is unitary over the price range from

- A. \$2 to \$6
- B. \$2 to \$8
- C. \$4 to \$8
- D. \$4 to \$10

1991/CE/11/23

When demand increase, which of the following would cause a greater rise in price?

- A. There is a large unsold stock of the good.
- B. It is easy to enter the industry.
- C. The factors of production have a low mobility.
- D. There is excess capacity in production.

1991/CE/II/57

Which of the following would NOT lead to an increase in the total revenue from the sale of a product?

- A. an increase in its demand
- B. an increase in its selling price
- C. a decrease in its demand
- D. a decrease in its selling price

1992/CE/II/28

Suppose the demand for wheat is elastic. Which of the following will decrease if there is a poor harvest of wheat?

- (1) the price of wheat
- (2) the total expenditure on wheat
- (3) the demand for wheat
- (4) the quantity of wheat transacted

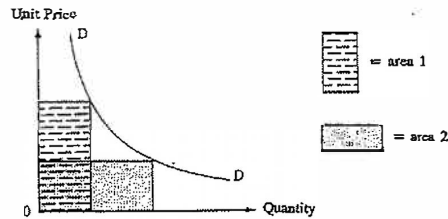
- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

1993/CE/II/20

From 1990 to 1991, even though the price of private flats increased rapidly more flats were sold than in the previous year. Which of the following reasons can explain this?

- A. The demand for private flats did not obey the law of demand.
- B. The demand for private flats was inelastic.
- C. There was an increase in the supply of public housing.
- D. There was a change in the demand for private flats.

1993/CE/II/25



If the demand is unitarily elastic along the above curve DD, then area 1 _____ area 2.

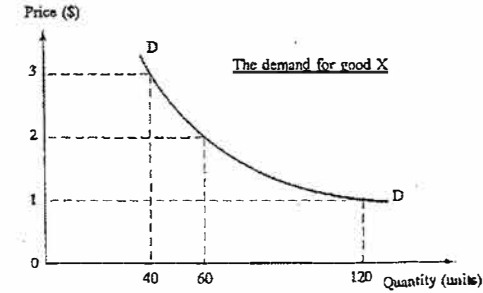
- A. is equal to
- B. is greater than
- C. is smaller than
- D. may be greater or smaller than

1993/CE/II/28

In a period of rainy weather, the price of umbrellas increased by 10% while the quantity transacted increased by 15%. What is the price elasticity of demand/supply of umbrellas in the above situation?

- A. The demand is elastic
- B. The demand is inelastic
- C. The supply is elastic
- D. The supply is inelastic

1995/CE/II/07



The demand for good X is

- A. elastic.
- B. unitary elastic.
- C. perfectly elastic.
- D. inelastic.

1996/CE/II/10

Research shows that changes in bus fares will not affect the number of passengers who travel before 9 a.m. but will affect the number of passengers who travel after 9 a.m. which changes by a greater percentage than the percentage change in bus fares. In order to obtain the largest revenue, the bus company should

- A. increase the fare before and after 9 a.m.
- B. not change the fares before 9 a.m. but reduce the fares after 9 a.m.
- C. increase the fares before 9 a.m. but reduce the fares after 9 a.m.
- D. not change the fares before 9 a.m. but increase the fares after 9 a.m.

1997/CE/II/08

If there is a poor harvest of rice in Thailand, the total expenditure on Thai rice in Hong Kong

- A. would increase because of a price rise.
- B. would decrease because of the availability of substitutes.
- C. would be more or less the same because of the availability of substitutes.
- D. may increase or decrease, depending on the price elasticity of demand of Thai rice.

1997/CE/II/09

The price elasticity of demand for the Hung Hom Cross-Harbour Tunnel service would decrease if

- A. the tunnel fee is raised from \$10 to \$30.
- B. the Western Harbour Crossing is open.
- C. the Eastern Harbour Crossing is closed for maintenance work.
- D. a new hydrofoil service is provided between Tsuen Wan and Wan Chai.

1997/CE/II/10

Support the MTR fares on short-distance journeys (X) and cross-harbour journeys (Y) are raised by 6.9% and 13.6% respectively. If the quantity demanded for X and Y falls by 8% and 3.5% respectively, which of the following is correct?

- A. Both the demand for X and Y are elastic.
- B. Both the demand for X and Y are inelastic.
- C. The demand for X is less elastic than the demand for Y.
- D. The demand for X is more elastic than the demand for Y.

1998/CE/II/06

Suppose the unit price of good X increases from \$2 to \$2.8 and its quantity demanded changes by 20%. Which of the following statements is correct?

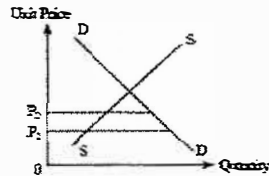
- A. The increase in price leads to more than proportionate decrease in the quantity demanded of good X.
- B. The increase in price leads to an increase in the total revenue of good X.
- C. The elasticity of demand for good X is 0.4.
- D. The change in the quantity demanded is less than the change in the price of good X.

1998/CE/II/07

When the supply of a commodity increases, its price may rise if

- A. The demand for it is perfectly inelastic.
- B. The demand for it is perfectly elastic.
- C. The price of its complement decreases.
- D. The price of its substitute decreases.

2000/CE/II/03



In the above diagram, when the price P_1 increases to P_2 ,

- A. the excess demand will disappear.
- B. the quantity transacted will decrease.
- C. the total revenue will necessarily increase.
- D. the total revenue will increase only if the demand is inelastic.

2000/CE/II/05

It became more difficult to find a metered car parking space by the roadside after the fee for a parking space was reduced from \$4 to \$2 for every 15 minutes. It was also reported that the fee in a car park remained at \$15 per hour.

Which of the following about the effect on metered car parking by the roadside is correct?

- A. It can be explained by the law of demand.
- B. It is an increase in demand.
- C. The equilibrium quantity decreases.
- D. The demand is elastic.

2000/CE/II/10

The demand elasticity of good X is 1.2. After a decrease in supply, the equilibrium quantity drops by 30%. The equilibrium price would _____ by _____.

- A. increase 25%
- B. decrease 25%
- C. increase 36%
- D. decrease 36%

2002/CE/II/08

After a good harvest, the price of choi-sum has changed by 50% and the quantity transacted has changed by 40%. Which of the following statements is/are correct?

- (1) The quantity demanded of choi-sum has increased.
- (2) The demand for choi-sum has increased.
- (3) The total revenue from selling choi-sum has increased.

- A. (1) only
- B. (1) and (2) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2002/CE/II/10

Suppose there is a technological advance in the production of a normal good. In which of the following situations may the market price of the good remain unchanged?

- A. The income of consumers decreases.
- B. The government raises the unit sales tax on the good.
- C. The demand for the good is perfectly inelastic.
- D. The supply of the good is perfectly inelastic.

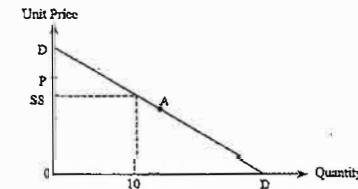
2003/CE/II/05

Which of the following would increase the elasticity of demand of the transport service of the Mass Transit Railway (MTR)?

- A. the cutting of bus lines running routes similar to those of the MTR
- B. a decrease in MTR passenger fares
- C. the opening of new lines of the Kowloon-Canton Railway running routes similar to those of the MTR
- D. a decrease in the operating costs of the MTR

2003/CE/II/07

Refer to the following straight line demand curve DD.



Point A is the mid-point of the demand curve DD. If the unit price increases from \$8 to P, the total revenue

- A. will be greater than \$80.
- B. will be equal to \$80.
- C. will be smaller than \$80.
- D. may be greater or smaller than \$80.

2003/CE/II/09

The government has imposed a fee for using the emergency services provided by public hospitals. As a result, patients' total expenditure on private medical services

- A. will decrease.
- B. will increase.
- C. will remain unchanged.
- D. may increase or decrease.

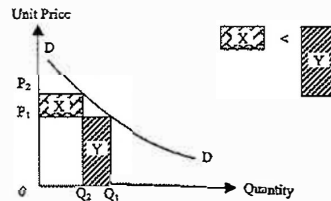
2003/CE/II/13

A market researcher reports to the manager of a company, "Even if we cut prices to boost sales, the sales revenue will remain unchanged because of the elasticity of demand of our product."

According to the market researcher, their product's elasticity of demand is

- A. perfectly inelastic.
- B. inelastic.
- C. elastic.
- D. unitarily elastic.

2004/CE/II/09



In the above diagram, DD is a demand curve. In the price range P_1 to P_2 , the elasticity of demand

- A. is less than 1.
- B. is equal to 1.
- C. is greater than 1.
- D. may be less than or greater than 1, depending on the exact values of P_1 , P_2 , Q_1 and Q_2 .

2005/CE/II/12

The table below shows the relationship between the price of Good X and its total sales revenue.

Price (\$)	1	2	3
Total sales revenue (\$)	100	200	300

Within the above price range, the elasticity of demand of Good X is

- A. equal to zero.
- B. greater than zero and smaller than one.
- C. equal to one.
- D. greater than one.

2006/CE/II/09

Fearing an outbreak of bird flu, people tend to consume less live poultry but more canned food. As a result, the price of the canned food of a particular brand changed by 50% and its quantity transacted rose from 1 000 cans to 1 350 cans per month. We can conclude that within the above price range this canned food had

- A. an elastic demand.
- B. an inelastic demand.
- C. an elastic supply.
- D. an inelastic supply.

2007/CE/II/09

The table below shows the relationship between the price of Good X and its sales revenue.

Price (\$)	10	20	30
Sales revenue (\$)	1 000	1 500	2 000

Within the above pricerange, the elasticity of demand for Good X is

- A. equal to zero.
- B. greater than zero and smaller than one.
- C. equal to one.
- D. greater than one.

2007/CE/II/11

The imposition of a per unit sales tax on a good will reduce its equilibrium quantity if

- A. the demand is inelastic.
- B. the demand is elastic.
- C. the demand is unitarily elastic.
- D. All of the above are correct.

2008/CE/II/06

Recently the stock market in Shanghai has become overheated. Compared with last year, the selling price of a financial magazine has increased from RMB¥5 to RMB¥8 while its sales volume has increased by 10%.

In the above case,

- A. the law of demand is violated.
- B. the demand curve of the magazine can still be downward sloping.
- C. the demand for the magazine is inelastic.
- D. the supply of the magazine is elastic.

2008/CE/II/10

With the introduction of high definition television (HD TV) broadcasting in Hong Kong, more people have chosen to buy an HD TV set. Under what condition will the market price of HD TV sets remain unchanged?

- A. The income of consumers increases.
- B. The government grants a cash subsidy to lower income groups to buy HD TV sets.
- C. The demand for HD TV sets is perfectly inelastic.
- D. The supply of HD TV sets is perfectly elastic.

2009/CE/II/09

Mr Chan travels frequently between Hong Kong and Beijing on business trips. Last year, even though the price of air-tickets increased by 50%, Mr Chan's total expenditure on these air-tickets remained unchanged. If Mr Chan's demand for these air-tickets last year remained the same as the previous year, his demand for these air-tickets last year would have been

- A. perfectly inelastic.
- B. inelastic.
- C. unitarily elastic.
- D. elastic.

2009/CE/II/10

Suppose with the more popular use of iPods (portable media players), the price of the traditional MP3 players has fallen by 40% and the quantity sold has changed by 50%.

This would indicate that within that price range, there was an _____ for the traditional MP3 player.

- A. elastic demand
- B. inelastic demand
- C. elastic supply
- D. inelastic supply

2010/CE/II/07

Most Hong Kong people use either town gas or electricity for cooking. Suppose there is a drastic increase in electricity charges. Consumers' expenditure on electricity consumption _____ but their expenditure on town gas consumption _____.

- A. will decrease will increase
- B. will increase may increase or decrease
- C. may remain unchanged will decrease
- D. may increase or decrease will increase

2010/CE/II/09

The demand elasticity of Good X is equal to one. Which of the following is a correct description of Good X?

- A. An increase in its price will not affect the quantity demanded.
- B. An increase in the price of its substitute will not affect the quantity demanded.
- C. The imposition of a per unit sales tax on it will not affect consumers' expenditure on it.
- D. A per unit subsidy offered by the government will not affect the total revenue (including the subsidy) of the sellers.

2010/CE/II/10

Suppose an increase in the demand for Good Y results in a 10% and 5% change in its price and quantity transacted respectively. Which of the following could explain the extent of the change in the price and the quantity transacted?

- A. The good is a habit-forming good.
- B. There are no close substitutes for the good.
- C. Firms producing the good have excess capacity in production.
- D. Firms producing the good have used factor inputs which are more specialized.

2012/DSE/II/11

Michelle is a jewelry lover and she says, "I will spend all my monthly salary on jewelry no matter what the price is." From this we can conclude that her demand for jewelry is

- A. elastic.
- B. inelastic.
- C. unitarily elastic.
- D. perfectly inelastic.

2012/DSE/II/12

Owing to continuous bad weather, the quantity transacted of local vegetables falls by 40% while the price rises by 13%. Which of the following statements are correct?

- (1) The quantity demanded of local vegetables falls.
- (2) The total expenditure on local vegetables rises.
- (3) The demand for imported vegetables rises.
- (4) The total expenditure on imported vegetables may rise or fall depending on the elasticity of demand.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (4) only
- D. (3) and (4) only

2014/DSE/II/13

Which of the following would reduce the elasticity of demand for the transport service of the Airport Express?

- A. There are more airport bus routes to different districts.
- B. Vans are not allowed to pick up passengers at the airport.
- C. The fare of the Airport Express is raised.
- D. The maintenance cost of the Airport Express trains increases.

2015/DSE/II/11

The table below shows the relationship between the price of and the total expenditure on ice-cream.

Unit price (\$)	5	6	7	8
Total expenditure (\$)	25	30	35	40

From the above table, we can conclude that the elasticity of demand for ice-cream is _____ (without regard to its negative sign)

- A. between zero and one
- B. equal to zero
- C. larger than one
- D. equal to one

2016/DSE/II/15

A decrease in the cost of producing Good X results in a 5% and 10% change in its price and quantity transacted respectively. Which of the following best explains the above changes?

- A. Good X is a durable good.
- B. There are no close substitutes for Good X.
- C. Firms producing Good X have excess capacity in production.
- D. The factors of production for Good X are not easily available.

Study the following news abstract.

A Dengue fever (登革熱) scare has hit Hong Kong after 19 people in the past week were confirmed to have contracted the virus locally. Dengue fever is transmitted to humans by *Aedes albopictus* (白紋伊蚊), a type of mosquito commonly found in Hong Kong.

Suppose the price and the quantity of mosquito repellents sold in Hong Kong changed by 5% and 120% respectively shortly after the release of the above news. This indicates that during that period and within the price range, there was an _____ the mosquito repellents in Hong Kong.

- A. elastic supply of
- B. inelastic supply of
- C. elastic demand for
- D. inelastic demand for

2020/DSE/1/11

When the price of Australia's red wine decreases from \$70 to \$50, the quantity demanded increases from 100 units to 122 units. What is the arc elasticity of demand for Australia's red wine within the above price range?

- A. 0.59
- B. 0.77
- C. 1.30
- D. 1.68

2017/DSE/1/15

Refer to the following conversation between Mandy and Shirley.

- Mandy: I like coffee very much! No matter how its price changes, I always buy the same amount of coffee every week!
- Shirley: I like coffee very much too! No matter how its price changes, I always spend the same amount of money on coffee every week!

Based on their conversation, Mandy's demand for coffee is _____ and Shirley's demand for coffee is _____.

- A. perfectly inelastic perfectly inelastic
- B. perfectly inelastic unitarily elastic
- C. unitarily elastic perfectly inelastic
- D. unitarily elastic unitarily elastic

2018/DSE/1/17

The original price of Sausage McMuffin with Egg was \$11 each. McDonald's introduced the following discount in a limited time.



As a result, more people bought Sausage McMuffin with Egg during the promotion period. Which of the following statements about this situation is correct?

- A. McDonald's was not maximising profit during the promotion period.
- B. The demand for Sausage McMuffin with Egg would be higher during the promotion period.
- C. The total expenditure of consumers on Sausage McMuffin with Egg would increase if the demand was elastic.
- D. There would be a temporary shortage of the food ingredients for making Sausage McMuffin with Egg.

Short & Structured Questions

1992/CE/1/1(d)

In Hong Kong, the number of urban taxi licences issued by the government is fixed.

- (i) Draw a supply curve to illustrate this situation (2 marks)
- (ii) Suppose the government decides to issue more urban taxi licences. With the aid of a supply and demand diagram, explain
- (I) how the market price of an urban taxi licence will be affected, and
 - (II) why the total market value of all urban taxi licences in Hong Kong might increase. (10 marks)

1993/CE/1/1(a)

'Yummy Yummy' is a fast food shop. In a promotion campaign, the shop reduced its selling price of a hamburger from \$4.2 to \$3.5. Later it was learnt that the total expenditure of customers on hamburgers increased despite the price cut. With the aid of a diagram, explain this phenomenon in terms of the price elasticity of demand. (7 marks)

1994/CE/1/1(b)

Suppose a typhoon destroys a large quantity of vegetables of Country A. However, the total revenue from the sale of vegetables increases. With the aid of a diagram, explain this phenomenon in terms of the price elasticity of demand. (7 marks)

1996/CE/1/1(a)

Newspapers in Hong Kong entered into a price war at the end of 1995. The following is a conversation between two managers of a newspaper.

General manager: 'A price-cut will reduce our newspaper's total sales revenue.'

Sales manager: 'Even if we do not cut our price, the total sales revenue will still decrease when others cut theirs.'

Explain the argument behind EACH of the above statements with the aid of a separate diagram. (11 marks)

1997/CE/1/1(c)

Suppose there is a drastic increase in sewage charges which affects the total revenue of local restaurants. With the aid of a diagram, explain the condition under which the total revenue would decrease. (8 marks)

2000/CE/1/1(b)

With the aid of a diagram, explain the condition under which a large emigration of Country A's workers to Country B would lead to a decrease in the total income of all workers (including those immigrants) in Country B. (8 marks)

2001/CE/1/2

Suppose the postage charge of a country is fixed. When e-commerce and e-mail becomes popular, the revenue of the country's Post Office from the postage charge falls sharply.

- (a) Indicate in a diagram the decrease in the postage charge revenue of the Post Office.
- (b) In order to compensate for the decrease in revenue, the Post Office increases its postage charge. Indicate in the diagram in (a) the change in revenue of the Post Office due to the increase in postage charge. (5 marks)

2003/CE/1/9(a)

Deflation has occurred in Hong Kong since 1998.

A government official has said, 'Deflation in Hong Kong would stimulate its exports.'

With the aid of a diagram, explain under what condition would deflation increase Hong Kong's total export value (in terms of the Hong Kong dollar). (7 marks)

2005/CE/1/9

The Western Harbour Crossing (俗稱西隧) has no traffic congestion problem. In July 2004, its tolls increased (except for taxis).

- (a) With the aid of a diagram, explain under what condition an increase in the tolls would increase the sales revenue of the tunnel company. (6 marks)
- (b) (i) The traffic using the Cross Harbour Tunnel (俗稱紅隧) is congested during the rush hours.

While the tolls of the Western Harbour Crossing increases, the tolls of the Cross Harbour Tunnel remains unchanged. With the aid of a diagram, explain why in this situation, the traffic using the Cross Harbour Tunnel during the rush hours would become more congested. (6 marks)

2009/CE/1/9(b)

In recent years, the price of textbooks has become a public concern.

The price of paper has increased sharply in recent years. With the aid of a diagram, explain under what condition publishers' total revenue from the sale of textbooks would increase. (8 marks)

2013/DSE/1/9(a)

The following is an extract from a local newspaper article.

The MTR corporation raised the railway fares by 5.4% in 2012. This increase was based on the Fare Adjustment Mechanism set by the government. To respond to the discontent of the public over the fare increase, the Corporation introduced a concessionary measure "Ride 10 Get 1 Free".

With the aid of a diagram, explain under what condition the total expenditure of passengers on the MTR will increase because of the rise in fare. (5 marks)

2015/DSE/1/1(c)

Tobacco duty is an indirect tax in Hong Kong. The Financial Secretary has increased the tobacco duty rate with the aim of discouraging smoking.

An economist stated "Other thing being constant, the rise in the tobacco duty rate would not effectively reduce the quantity consumed of duty-paid cigarettes." Justify his statement WITHOUT using a diagram. (4 marks)

2017/DSE/1/10(c)

MTR Corporation Limited (stock code: 66) provides railway services in Hong Kong.

Table 1: Business information about the local services of MTR

Year	Fare Adjustment Rate	Total Passengers Boarding (In million)	Total Revenue (HK\$ million)
2012	+5.4%	1 431	14 523
2013	+2.7%	1 475	15 166
2014	+3.6%	1 548	16 223

Based on Table 1, can we conclude that 'the increase in total revenue is a result of inelastic demand for the local services of MTR'? Explain your answer with the aid of a diagram. (7 marks)

2018/DSE/1/5(a)

During peak flu seasons, there is not enough medical staff in public hospitals in Hong Kong.

An economist stated, 'Even if the government sharply increases the wage rates of the medical staff, it is still difficult to relieve the problem.' Justify his statement using the concept of elasticity of supply / demand. (3 marks)

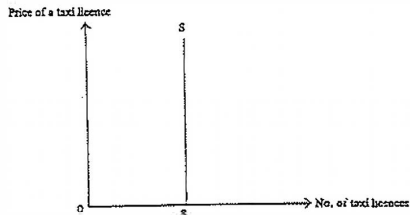
MARKING SCHEME

1990/CE/II/05 B	1995/CE/II/07 B	2000/CE/II/10 A	2006/CE/II/09 D (14%)	2010/CE/II/10 D (20%)
1990/CE/II/26 C	1996/CE/II/10 C	2002/CE/II/08 A (44%)	2007/CE/II/09 B (55%)	2012/DSE/II/11 C (45%)
1991/CE/II/19 C	1997/CE/II/08 D	2002/CE/II/10 B (34%)	2007/CE/II/11 D (52%)	2012/DSE/II/12 B (61%)
1991/CE/II/23 C	1997/CE/II/09 C	2003/CE/II/05 C (51%)	2008/CE/II/06 B (24%)	2014/DSE/II/13 B (60%)
1991/CE/II/57 C	1997/CE/II/10 D	2003/CE/II/07 C (55%)	2008/CE/II/10 D (56%)	2015/DSE/II/11 B (47%)
1992/CE/II/28 C	1998/CE/II/06 B	2003/CE/II/09 B (45%)	2009/CE/II/09 C (62%)	2016/DSE/II/15 A (37%)
1995/CE/II/20 D	1998/CE/II/07 C	2003/CE/II/13 D (59%)	2009/CE/II/10 C (26%)	2017/DSE/II/15 B (34%)
1995/CE/II/25 A	2000/CE/II/03 A	2004/CE/II/09 C (51%)	2010/CE/II/07 D (52%)	2018/DSE/II/17 C (63%)
1995/CE/II/28 C	2000/CE/II/05 A	2005/CE/II/12 A (32%)	2010/CE/II/09 C (42%)	2019/DSE/II/11 A

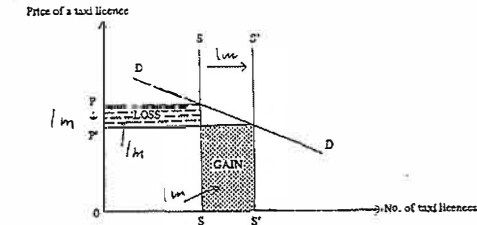
Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2020/DSE/II/A

1992/CE/II/1(d)
(i)



(ii)



(ii) Indicate in the diagram:

- supply curve shifts to the right
- $P \downarrow$
- correct position of 'gain' and 'loss'
- gain > loss

(1)
(1)
(1)
(1)

Verbal explanation:

(I) The price of a taxi licence will decrease, because there is an increase in supply.

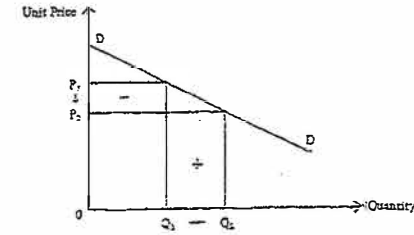
(1)
(1)

(II) If the demand for taxi licences is elastic,

the percentage increase in quantity demanded will be larger than the percentage decrease in price.

(2)
(2)

1993/CE/II/1(a)



Indicate in the diagram:

- correct position of 'gain' and 'loss'
- gain > loss

(1)
(1)

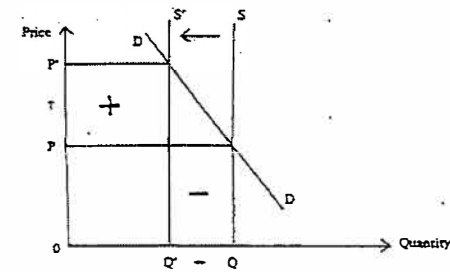
Verbal explanation:

The demand for hamburgers is elastic (because there are substitutes).

The percentage decrease in price is smaller than the percentage increase in quantity demanded.

(2)
(3)

1994/CE/II/1(b)



Indicate in the diagram:

- supply curve shifts to the left
- correct position of 'gain' and 'loss'
- gain > loss

(1)
(1)
(1)

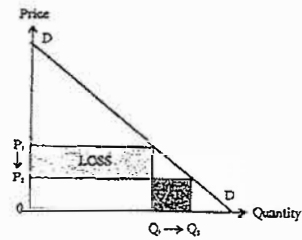
Verbal explanation:

Since the demand is inelastic,

the percentage increase in price is larger than the percentage decrease in quantity sold.

(1)
(3)

1996/CE/1/1(a)
General manager:



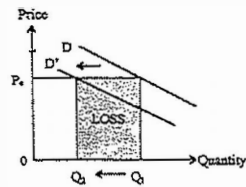
Indicate in the diagram:

- $P \downarrow$ & $Q \uparrow$
- correct position of 'gain' and 'loss'
- gain < loss

Verbal explanation:

The demand is inelastic,
the percentage increase in quantity demanded is smaller than the percentage decrease in price.

Sales manager:



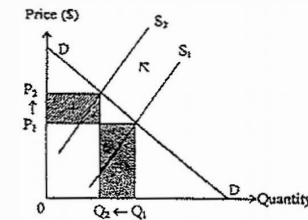
Indicate in the diagram:

- demand curve shifts to the left
- P unchanged & $Q \downarrow$
- loss

Verbal explanation:

The demand for this newspaper would decrease (because different newspapers are substitutes for each other).
The quantity transacted decreases.

1997/CE/1/1(c)



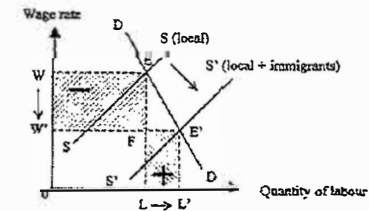
Indicate in the diagram:

- supply curve shifts to the left
- $P \uparrow$ & $Q \downarrow$
- correct position of 'gain' and 'loss'
- gain < loss

Verbal explanation:

The supply of restaurant services decreases (because of an increase in production cost).
The demand is elastic,
the percentage increase in price is smaller than the percentage decrease in quantity demanded.

2000/CE/1/1(b)



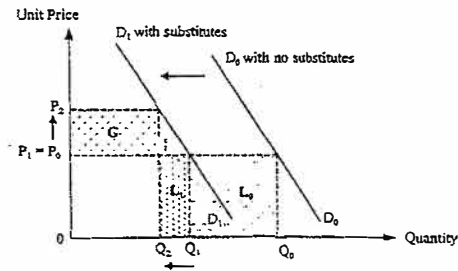
Indicate in the graph:

- S (local people) shifts rightward to S' (local + immigrants)
- correct position of 'gain' and 'loss'
- loss > gain

Verbal explanation:

The supply of labour increases.
The demand is inelastic,
the percentage decrease in wage rate is larger than the percentage increase in employment

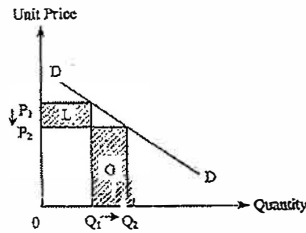
2001/CE/1/2



- (a) Indicate in the graph:
- demand curve shifts to the left
 - fixed postage charge, i.e., $P_1 = P_0$
 - L_1 = decrease in total revenue
- (b) Indicate in the graph:
- L_1 = new loss in total revenue
 - G = new gain in total revenue

(1)
(1)
(1)

2003/CE/1/9(a)



- Indicate in the diagram:
- $P \downarrow$ and $Q \uparrow$
 - revenue loss < revenue gain

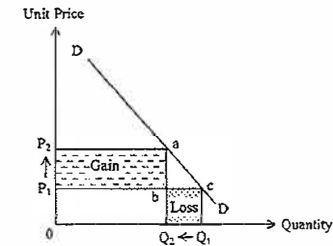
(1)
(2)

Verbal elaboration:

The fall in export prices leads to an increase in the export volume.
As the demand for HK exports is elastic,
the percentage change in export price is smaller than the percentage change in the export volume.

(1)
(1)
(2)

2005/CE/1/9
(a)



- Indicate on the diagram:
- Area abP_1P_2 = Gain; Area bcQ_1Q_2 = Loss
 - Gain > Loss

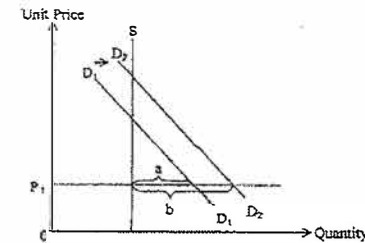
(1)
(1)
(1)

Verbal elaboration:

(After the increase in tolls,) the quantity demanded decreases.
The demand for the tunnel service is inelastic,
the percentage change in price is larger than the percentage change in quantity demanded.

(1)
(1)
(2)

(b) (i)



- Indicate on the diagram:
- price (P_1) is below the equilibrium price
 - rightward shift of the demand curve
 - excess demand increases from a to b

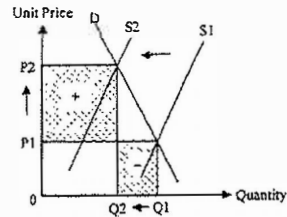
(1)
(1)
(1)

Verbal elaboration:

The Cross Harbour Tunnel is a substitute of the Western Harbour Crossing.
The demand for the Cross Harbour Tunnel's service increases.
(With a fixed price,) the excess demand would increase.

(1)
(1)
(1)

2009/CE/1/9(b)



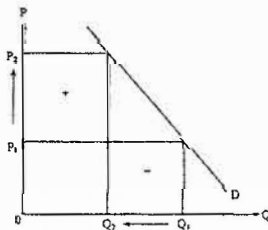
Indicate in the diagram:

- supply curve shifts to the left
- \downarrow and $P \uparrow$ (1)
- loss in total revenue < gain in total revenue

Verbal elaboration:

The supply of textbooks decreases, because the cost of production has increased. (1)
The price increases and the quantity transacted decreases. (1)
If the demand is inelastic, (1)
the percentage change in quantity demanded is smaller than the percentage change in price. (1)

2013/DSE/1/9(a)



Indicate on the diagram:

- correction position of gain and loss
- gain > loss

Verbal elaboration:

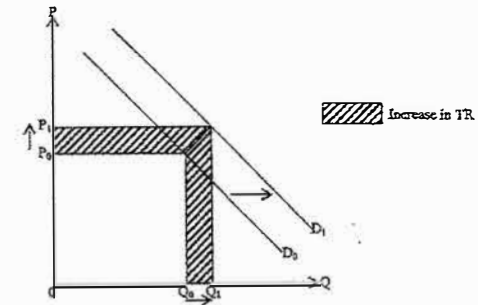
If the demand for MTR service is inelastic, (1)
the percentage increase in fare will be higher than the percentage decrease in the number of trips (so the total expenditure will increase). (2)

2015/DSE/1/1(c)

Tobacco duty would increase the market price of duty-paid cigarettes and thus reduce its quantity demanded. (1)

If cigarette consumers are addicted, (1)
their demand for cigarettes would be inelastic, so (1)
the percentage decrease in quantity demanded would be smaller than the percentage increase in price. (1)

2017/DSE/1/10(c)



Illustrate in the diagram:

- rightward shift in the demand curve (1)
- higher price and quantity (1)
- higher total revenue (1)

Verbal elaboration:

No, because (1)
there was a rise in demand. (2)
As both the price and the quantity transacted have increased, (2)
total revenue has increased. (1)

(Max: 7)

2018/DSE/1/5(a)

The supply of medical staff may be inelastic because (1)
they require special training and qualification. (1)
(Even if the government raises their wage rates sharply, the percentage increase in the quantity supplied of medical staff would still be smaller than the percentage increase in their wage rates. (1)

7.2 EFFICIENCY & SOCIAL SURPLUS

Multiple Choice Questions

1985/AL/1/22

Consumer surplus is the

- A. excess quantity of a good which the consumer cannot consume.
- B. quantity of a good which the consumer chooses not to consume.
- C. extra satisfaction which the consumer enjoys in the purchase of a good.
- D. extra amount the consumer is willing to pay over and above what he actually pays.

1986/AL/1/15

Consumer surplus is

- A. the amount left over after a consumer makes a purchase.
- B. the quantity supplied to a consumer exceeding the quantity he prefers.
- C. the difference between what a consumer is willing to pay over and above what he actually pays.
- D. the area underneath the consumer's demand curve.

1990/AL/1/02

'Consumer equilibrium' means

- A. to each individual, the marginal benefit of a good is equal to its price.
- B. to each individual, the marginal benefit of every good is equal.
- C. to each individual, his total expenditure is equal to his total income.
- D. the marginal benefit of a good is the same for all consumers in the market.

1991/AL/1/08

Which of the following statements about 'benefit' is true?

- A. When a good has a benefit, it must have a market value.
- B. A good has a high market value if it has a high benefit.
- C. The total benefit of a good is the intrinsic value of that good.
- D. The marginal benefit of a good to a person depends on the quantity of that good which he already possesses.

1995/AL/1/03

Currently, with no entrance fee, the flow of visitors to the Hong Kong Park does not reach its full capacity. If the government now charges an entrance fee,

- A. the consumers' surplus will rise.
- B. the total benefit will decline.
- C. the marginal benefit will fall.
- D. the cost of maintenance will rise.

1995/AL/1/06

If floods in China destroyed half the output of rice, the total benefit of rice will

- A. rise but the total market value may rise or fall.
- B. fall but the total market value may rise or fall.
- C. fall but the total market value will rise.
- D. rise but the total market value will fall.

1997/AL/1/07

A free good

- A. is provided by the government free of charge.
- B. has no benefit and is not preferred.
- C. is a good the supply of which is so abundant that more of it is not preferred.
- D. is a gift of nature.

1998/AL/1/12

Due to exceptionally good weather, the supply of wheat has increased. The total benefit of wheat will _____ and the total market value _____.

- A. decrease will decrease
- B. increase will increase
- C. decrease may decrease or increase
- D. increase may decrease or increase

1998/AL/1/24

Mary spent \$500 to enter a lucky draw and won an airline ticket with a market price of \$3 000. The ticket was neither transferable nor refundable. Which of the following is correct?

- A. It is costless for Mary to use the ticket.
- B. (out of syllabus)
- C. The ticket must worth more than \$500 to Mary.
- D. None of the above.

2000/AL/1/10

A free good is a good that yields zero

- A. marginal benefit.
- B. average benefit.
- C. total benefit.
- D. consumer surplus.

2001/AL/1/19

A free good

- A. is less preferable than an economic good.
- B. has zero marginal benefit.
- C. is a good that has no demand.
- D. is a good provided by a generous person free of charge.

2002/AL/1/10

Market price

- A. is a criterion which determines who wins and who loses.
- B. is the maximum amount a consumer is willing to pay at the margin.
- C. may not be necessary in directing the use of scarce resources.
- D. All of the above.

2003/AL/I/11

In production, resource allocation is said to be efficient when

- A. the marginal cost of production equals the marginal benefit.
- B. the marginal benefit equals the product price.
- C. the marginal cost of production equals the marginal revenue.
- D. the marginal cost of production equals the average cost of production.

2006/AL/I/02

The marginal benefit of an individual on a good

- A. is observable.
- B. is asserted to be decreasing.
- C. always begins with a positive value.
- D. has to be expressed in terms of money.

2006/AL/I/23

Satisfaction of the efficiency condition implies that

- A. (out of syllabus)
- B. there is no scarcity of resources.
- C. the value of all resources is maximized.
- D. all costs of transactions are zero.

2008/AL/I/05

Consumer surplus is

- A. what a consumer possesses that is more than he can consume.
- B. what a consumer has purchased that is more than he intended.
- C. that part of benefit of a good exceeding the expenditure.
- D. that part of income a consumer donated to charity.

2010/AL/I/07

The market price of a good

- A. reflects its marginal benefit.
- B. is determined by its total benefit.
- C. is a competitive criterion that leads to inefficiency.
- D. will not exist in the absence of money.

2012/AL/I/01

A free good

- A. is provided by the government free of charge.
- B. has zero marginal benefit.
- C. is less preferable than an economic good.
- D. has no demand.

2012/AL/I/05

Susan says, "I won't eat any more pineapple unless you pay me!" Which of the following statements is correct?

- A. The demand curve of Susan cannot be drawn.
- B. The marginal benefit of pineapple to Susan is zero.
- C. (out of syllabus)
- D. Susan's demand for pineapple is perfectly inelastic.

2012/AL/I/07

If floods in Thailand have destroyed more than half of her crops, the total market value of the crops

- A. may rise or fall but the total benefit will rise.
- B. may rise or fall but the total benefit will fall.
- C. will rise but the total benefit will fall.
- D. will fall but the total benefit will rise.

2012/AL/I/16

A video-rental club charges \$20 per movie, or consumers can purchase a pre-paid coupon at a charge of \$100 for 10 movies. Which of the following statements is correct?

- A. The consumer surplus of a coupon purchaser is larger.
- B. The consumer surplus of a non-coupon purchaser is larger.
- C. The consumer surplus is roughly the same either way.
- D. There is not enough information to tell which way yields a larger consumer surplus.

PP/DSE/I/12

The following table shows the total cost schedule of a price-taking firm which has a fixed cost equal to \$20.

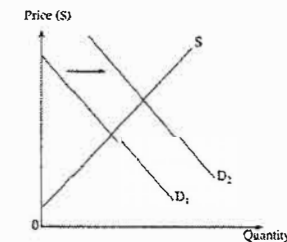
Quantity (units)	Total cost (\$)
1	40
2	65
3	95
4	130
5	170

Suppose the market price is \$55. At the profit-maximizing output level, the firm's profit and total producer surplus are _____ and _____ respectively.

- A. \$10 \$10
- B. \$10 \$30
- C. \$30 \$10
- D. \$30 \$30

PP/DSE/I/14

The following diagram shows the demand and supply curves of good X in a perfectly competitive market.



There is a shift in the demand curve for good X from D_1 to D_2 . As a result,

- A. firms enjoy more producer surplus.
- B. the marginal cost of producing the last unit decreases.
- C. the supply of good X increases.
- D. consumers enjoy less consumer surplus.

PP/DSE/1/17

Economic efficiency is attained when

- (1) Total benefits to consumers are maximized.
- (2) All potential gains are fully captured.
- (3) Marginal social benefits are equal to marginal social costs.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2012/DSE/1/14

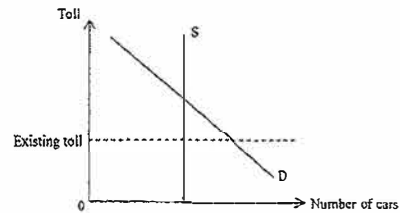
On 10th July 2011, the urban taxi fare for the first 2 km was raised from \$18 to \$20. Which of the following statements about the urban taxi service are correct?

- (1) The demand for taxi service dropped.
- (2) The price of long-distance taxi trips relative to short-distance taxi trips dropped.
- (3) The consumer surplus for the taxi service dropped.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2014/DSE/1/15

Refer to the following supply-demand diagram for the Cross-Harbour Tunnel.



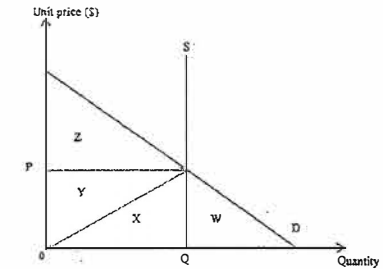
The government proposed to raise the toll for the Cross-Harbour Tunnel so as to lessen the traffic congestion during rush hours. Suppose the maximum vehicular volume of the tunnel is fixed. Which of the following statements are correct?

- (1) The demand for the service of the Cross-Harbour Tunnel will decrease.
- (2) The total revenue of the Cross-Harbour Tunnel will increase.
- (3) The deadweight loss caused by traffic congestion will decrease.
- (4) The opportunity cost of the drivers using the tunnel will increase.

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2015/DSE/1/22

Refer to the following diagram.



The maximum total social surplus is equal to _____

- A. Area Z.
- B. Area (Y+Z)
- C. Area (W+X+Y)
- D. Area (X+Y+Z)

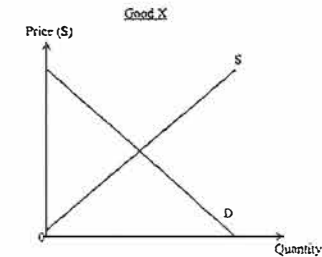
2016/DSE/1/21

In which of the following situations is efficiency attained?

- A. Total social benefit is equal to total social cost.
- B. Producer surplus is equal to consumer surplus.
- C. The difference between marginal social benefit and marginal social cost is zero.
- D. The consumer surplus of all consumers in the market is maximised.

2016/DSE/1/22

The following diagram shows the supply and demand curves of Good X.



Good X and Good Y are in competitive supply. A rise in the demand for Good Y will lead to in the consumer surplus and in the producer surplus in the market of Good X.

(Assume the supply and demand curves of Good X shift in a parallel manner.)

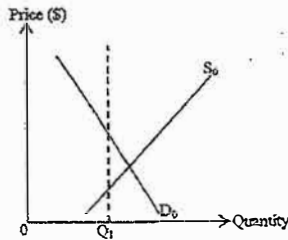
- A. an increase an increase
- B. an increase a decrease
- C. a decrease an increase
- D. a decrease a decrease

2017/DSE/1/12

A famous artist, Tsz-Wah, held a show. Many people complained that they could not buy a ticket. Ticket touts resold the tickets on the Internet and some buyers paid a price higher than HK\$10 000 for a ticket. The above case illustrates the _____ function of price because _____

- A. rationing the tickets are rationed to the highest-valued buyers
- B. rationing demand will be reduced by a higher price
- C. allocative more profits can be earned with a higher price
- D. allocative more resources should be allocated to the producer to raise the supply

Refer to the following supply-demand diagram of Good X.



If the government sets a quota at Q_1 , then _____ will decrease.

- (1) total social surplus
 (2) total expenditure on Good X
 (3) consumer surplus
 (4) producer surplus

- A. (1) and (2) only
 B. (1) and (3) only
 C. (2) and (4) only
 D. (3) and (4) only

Suppose there is a bad harvest of flowers due to global warming. The marginal benefit of flowers will _____ and the total exchange value _____.

- A. decrease will decrease
 B. increase will increase
 C. decrease may decrease or increase
 D. increase may decrease or increase

Short & Structured Questions

1988/AL/1/2

'The maximum one is willing to pay is marginal benefit.' Why is the word maximum associated with marginal benefit?

1989/AL/1/1

What is price?

1992/AL/1/6

In the State of Washington, one who wishes to hunt for mountain goats must obtain a special goat permit. Each year approximately 8 000 people apply for goat permits. A draw is held to select 1 000 'winners'. Each winner may then purchase a goat permit for US\$20.00, entitling him to kill a maximum of one goat over a one-year period. Permits are not legally transferable, nor can they be resold, in any form. Each year about 250 permit holders succeed in killing a goat.

If the goat permits were allowed to be resold in a free market, would the new price be higher or lower? And would more goats be killed? Explain.

1994/AL/1/8

Compact discs of popular songs are now being reproduced on a massive scale in China. This reproduction is illegal, and the reproduced discs are sold in the market at significantly lower prices than the original discs.

From the standpoint of maximizing social gains, should the illegal practice of reproducing discs be firmly suppressed so that only the higher-priced original discs can be found on the market? Explain.

1997/AL/1/8(a)

University education in Hong Kong is heavily subsidized by the government. Under this system, admission to university as well as the selections of university and field of study are based on examination results. Imagine that there is an alternative system in which students in which students are admitted according to their willingness and ability to pay the highest price (tuition).

Of the numerous differences between these two systems, analyse only the following: How hard students will study in a university, when each and every university sets a firm standard requirement for graduation and the award of a degree.

2002/AL/1/06(b)

The Western Harbour Tunnel cost \$7 billion to build. After several years of operation the traffic flow remains far less than anticipated. Since the cost of serving an extra car is zero, in order to maximize wealth, the tunnel company simply charges a toll per car to maximize total revenue.

Some economists argue that if the cost of serving an extra car is zero, as it will be if the tunnel has no traffic congestion, then, to maximize social surplus, no toll should be charged. The counter argument to this is that if no toll is charged, no private enterprise will build the tunnel. Now the tunnel is already built, and the cost in the past is no longer an opportunity cost. Will society gain if the government purchases the tunnel and lets all cars use it free of charge?

2006/AL/1/5

Illustrate and explain why the efficiency condition is not satisfied in buffet dinners.

2006/AL/1/9

Whereas ladies from mainland China are coming to Hong Kong to buy the authentic handbags bearing prestigious brand names, ladies from Hong Kong are going to Shenzhen to buy fake handbags bearing the same brand names. The handbags look alike, but the authentic ones cost nearly 50 times more than the fake ones, even though they are only slightly more durable.

Does this imply that the ladies from China are richer than the Hong Kong ladies? Why would they pay such high prices for handbags which are expected to be only slightly more durable?

2009/AL/1/7(a)

In the United States, hunting of wildlife is restricted to certain seasons of the year. For residents of a given state, hunting licences for different species are required and each species bears a different licence fee. Out-of-state residents who want to hunt in the same state are required to pay higher licence fees.

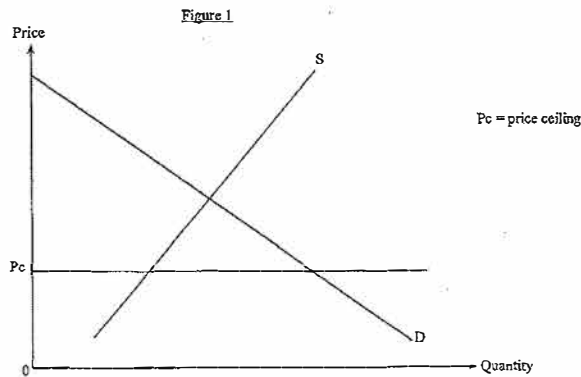
Do you expect the out-of-state licence holders to be better hunters than the licence holders of the resident state? Explain.

PP/DSE/1/4

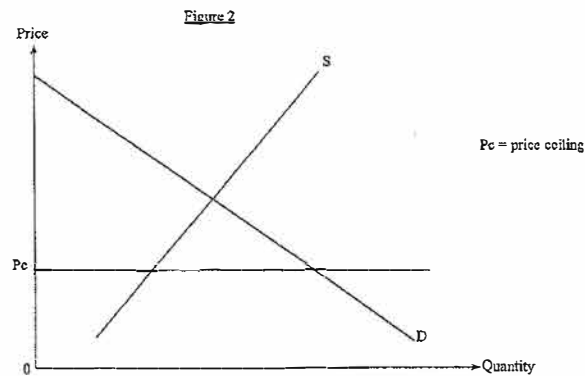
(a) What is 'deadweight loss'? (2 marks)

(b) A teacher said, 'An effective price ceiling may increase the consumer surplus.'
His student replied, 'If this is the case, the price ceiling may enhance economic efficiency!'

(i) Do you agree with the teacher? Illustrate your answer in Figure 1. (3 marks)



(ii) Do you agree with the student? Explain your answer with the aid of Figure 2. (5 marks)



PP/DSE/1/12(b)(i)

In November 2010, the animated version of the Riverside Scene at the Qingming Festival (電子動態版清明上河圖) was exhibited in Hong Kong. 600 000 tickets were sold at \$10 each through the URBETIX outlets and the Internet. Tickets were sold out within a short period of time. Many citizens complained that they could not purchase any tickets.

Some people paid \$200 to buy a ticket from touts (黄牛黨). State the function of price in the above case. (1 mark)

2015/DSE/1/4(a)

Read the following news extract.

The strong preference for small flats has pushed the prices of the flats under 400 square feet to a new high in the past few months. It is expected that more and more small flats will be available for sale in the coming future.

Explain ONE function of price which can be found in the above news extract. (2 marks)

2016/DSE/1/11

Medical service is one of the basic human needs.

Source A: a conversation outside a public clinic in Hong Kong

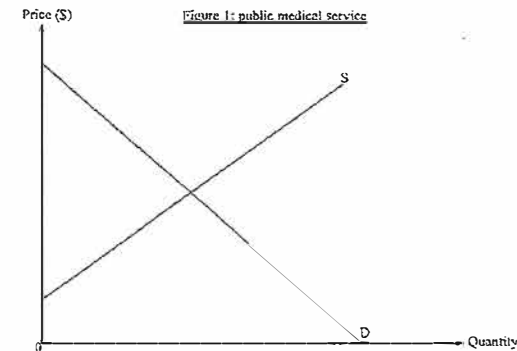
Son: Dad, I feel very ill.

Father: Oh no! There is a long queue waiting.

Son: Why don't we go to a private doctor?

Father: The fee charged by public clinics is only \$45, much lower than that charged by private doctors.

(b) With reference to Source A, explain with the aid of Figure 1 how the price set by public clinics may lead to economic inefficiency in the provision of public medical service. (6 marks)
(Assume the supply curve in Figure 1 fully reflects the marginal social cost of public medical service.)



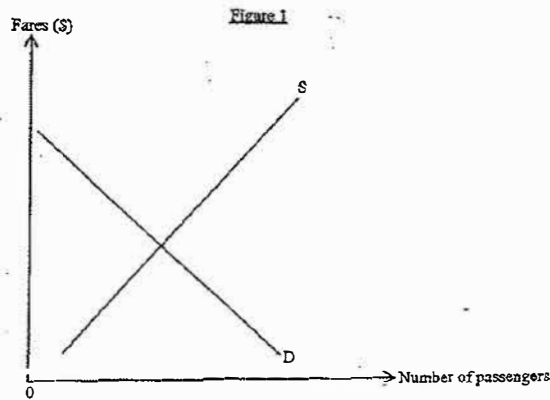
Source B: an extract from the Hospital Authority webpage

The Hospital Authority is committed to providing community-based primary care services. Our target patients include the elderly, low-income individuals, and patients with chronic diseases.

(d) Many people argue that public clinics should raise the fee to reduce the waiting time. Evaluate this argument in terms of economic efficiency. (2 marks)

The Guangzhou-Shenzhen-Hong Kong Express Rail Link (High Speed Rail) was launched in September 2018.

- (a) Explain the effect of the launch of High Speed Rail on labour mobility of Hong Kong. (3 marks)
- (b) During non-holidays, there are a lot of empty seats on some trains of the High Speed Rail. With the aid of Figure 1, explain why the above situation may be inefficient. (4 marks)



MARKING SCHEME

1985/AL/22 D	1997/AL/07 C	2003/AL/11 A	2012/AL/05 B (45%)	2012/DSE/14 C (64%)
1986/AL/15 C	1998/AL/12 D	2006/AL/02 B (71%)	2012/AL/07 B (68%)	2014/DSE/15 C (54%)
1990/AL/02 A	1998/AL/24 A	2006/AL/23 C (53%)	2012/AL/16 D (67%)	2015/DSE/22 D (64%)
1991/AL/08 D	2000/AL/10 A	2008/AL/05 C (94%)	PP/DSE/12 B	2016/DSE/21 C (68%)
1995/AL/03 B	2001/AL/19 B	2010/AL/07 A (85%)	PP/DSE/14 A	2016/DSE/22 D (61%)
1995/AL/06 B	2002/AL/10 D	2012/AL/01 B (70%)	PP/DSE/17 C	2017/DSE/12 A (88%)

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2019/DSE/21
B

2019/DSE/1
D

1988/AL/2

The marginal benefit (i.e. value) is the maximum a consumer is willing to pay for the last unit purchased. Errors aside, not maximizing individual will, on a voluntary basis, pay more than what he is willing to pay.

If price is lower than his marginal benefit, to maximise consumer surplus, the consumer will buy more until the price is equal to his marginal benefit. Therefore, at the margin, he will pay the maximum of what he is willing to pay, and price equals marginal benefit.

1989/AL/1

Price is a marginal benefit (i.e. the maximum an individual is willing to pay at the margin).

Price serves as a signaling device to direct resource allocation (i.e. allocative function); it also serves as a criterion of determining who wins or loses in competing for goods and services in the market place (i.e. rationing function).

1992/AL/6

The market price of the permits will definitely be higher than \$20, because in this market the criteria of drawing lottery will not be used, leaving the market price to measure fully the marginal benefit people place on the permit.

With the permits now going to those who offer the highest prices in the resale market, more goats will likely be killed. This is because the higher permit price implies that either the permit holders are better, more enthusiastic, or more frequent hunters who place a higher marginal benefit on hunting.

(Note: More goats would be killed not because permit holders wished to make compensation for the higher price, but because only better hunters were willing to pay a higher price to obtain the permits.)

1994/AL/8

No. The marginal cost of reproducing discs (legal or illegal) is much lower than the selling price. Since illegal copies are sold at a lower price, buyers can enjoy a greater consumer surplus. The marginal benefit is closer to the marginal cost, leading to a more efficient allocation of resources.

Yes. If reproduced discs are sold in the market, in an extreme case, the composers of the songs will not be able to receive any revenue from selling the original discs. There will be no more new songs and original discs in the future (and hence illegal reproduction), and no more consumer surplus and producer surplus in the future.

1997/AL/1/8(a)

When a student is required to pay a high tuition out of his own pocket to buy university education, his own marginal benefit in university education will also be high. He will therefore treasure education more, with the result that he would study harder than when he does not have to pay and put a low marginal benefit on education.

(Note: Whether students are willing to work harder or not depends on the price they have to pay for being lazy, as indicated by the law of demand. The 'price' here is the value of learning forgone.)

2002/AL/1/06(b)

Whoever pays for the purchase of the tunnel, the payment is a cost to society. If the government purchases the tunnel (tax money is a cost to society) and let all cars use it free of charge, there is no way of knowing the total benefit to the users will cover the purchasing cost of the tunnel, even if we ignore the cost of operation. Whether or not here is congestion makes no difference to this answer.

2006/AL/1/5

In a buffet dinner when a consumer eats until his marginal benefit reaches zero, lower than the marginal cost of producing food, we have an inefficient situation.

2006/AL/1/9

It does not mean ladies in mainland China are richer than those in Hong Kong. It only indicates that mainland ladies have a higher maximum willingness to pay for prestigious handbags. Such a higher marginal benefit could be a result of higher wealth or income, or other factors such as a lack of substitutes or consumer preference (e.g. due to culture or advertisement) favourable to these handbags.

Many ladies from China pay such high prices because they do care for famous or prestigious brand names and it is possible that mainland ladies in general have a higher preference for prestige.

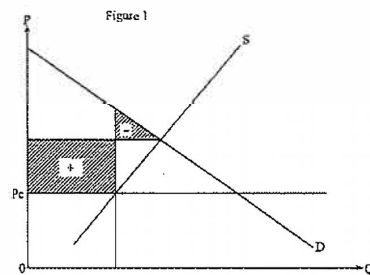
2009/AL/1/7(a)

The higher licence fees plus the higher travelling costs indicate that the cost per animal hunted is considerably higher for out-of-state hunters, so in general they would have to be better hunters to equate the marginal gain and marginal cost of hunting.

PP/DSE/1/4

(a) Deadweight loss is the loss in the total social surplus or the potential gains not fully captured when marginal benefit does not equal marginal cost. (2)

(b) (i) Yes. (1)



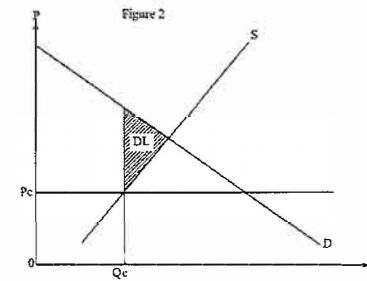
Indicate in the diagram:

- gain of consumer surplus (+)
- loss of consumer surplus (-)

(1)
(1)

PP/DSE/1/4

(b) (ii)



Indicate in the diagram:

- deadweight loss (DWL)
- quantity is Q_c

(1)
(1)

Verbal elaboration:

- No, because (1)
- when price is set below equilibrium, the quantity transacted will be reduced. (1)
- marginal cost of sellers is lower than marginal benefit of consumers / there is deadweight loss. (1)

PP/DSE/1/12(b)(i)

Rationing function. Tickets were distributed to the buyers who were willing to pay at least \$200. (1)

2015/DSE/1/4(a)

Allocative function; Higher prices of small-sized flats would induce real-estate developers to direct more resources towards the production of small flats.

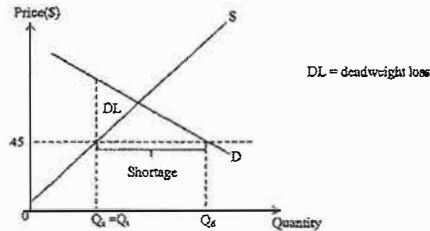
OR

Signal function: Prices help transmit information about consumer demand relative to producer supply. (2)

(2)

2016/DSE/1/11

(b)



Illustrate in the diagram:

- price set below equilibrium
- correct position of Q_s
- correct position of dead weight loss

(1)
(1)
(1)

Verbal elaboration:

The price is set at \$45 which is below equilibrium. (With the existence of shortage,) the quantity transacted is below equilibrium quantity or there is underproduction, the marginal benefit is larger than the marginal cost.

(1)
(1)
(1)

(d) Efficiency:

The fee increase would improve efficiency as it results in a price closer to the equilibrium level, thus narrowing the gap between MB and MC and reducing the size of deadweight loss.

(2)

2019/DSE/1/11

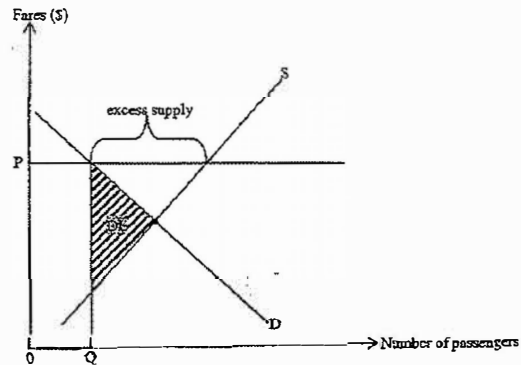
(a) The launch of HSR will increase the geographical mobility of workers because the transportation network improves. (3)

(b) Verbal elaboration:
Fares are set above the market-clearing (or equilibrium) level. So marginal benefit of train service is larger than marginal cost. (2)

Illustrate in the diagram:

- correct position of P and Q
- correct position of deadweight loss (DL)

(1)
(1)



SECTION 8: MARKET INTERVENTION

8.1 PRICE CONTROL

Multiple Choice Questions

1990/CE/II/04

Which of the following will result in a 'shortage' of housing?

- A. There is an increase in population.
- B. Many people cannot afford to buy a flat.
- C. The supply of housing is inelastic.
- D. The government sets the price of housing below the market price.

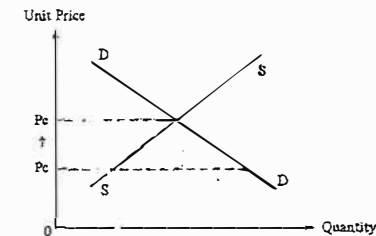
1992/CE/II/24

If the government imposes a price floor below the equilibrium price, there will be

- A. a decrease in the sales revenue.
- B. a decrease in the quantity transacted.
- C. an excess supply.
- D. no excess demand.

1992/CE/II/27

The below diagram shows the price and quantity of Good X. The price increases from P_c to P_e after the price ceiling is cancelled. As a result, the total expenditure on Good X will



- A. increase.
- B. decrease.
- C. remain unchanged.
- D. either increase or decrease, depending on its price elasticity of demand.

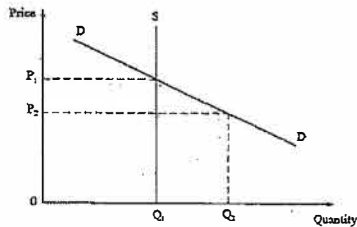
1993/CE/II/27

Filipino maids working as domestic helpers in Hong Kong receive a minimum wage. They usually have to wait for a long time before obtaining employment in Hong Kong. They would have a shorter waiting time and more employment opportunities in Hong Kong if

- A. their minimum wage was raised
- B. the minimum wage legislation was removed
- C. the Philippines was more politically unstable
- D. a surcharge was imposed on the Hong Kong employers

1994/CE/II/10

The following diagram shows the supply of and the demand for the tickets of a concert.



If the tickets are sold at P_2 instead of P_1

- (1) a black market may occur.
- (2) the sales revenue will be smaller.
- (3) the quantity transacted will be greater.
- (4) the sales revenue may increase or decrease, depending on the price elasticity of demand.

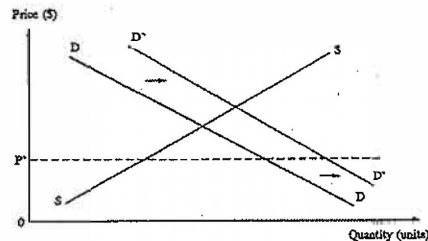
- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1995/CE/II/09

The flats under the Home-Ownership Scheme are allocated by a draw. This implies that

- A. the Housing Authority has under-estimated the demand for this type of housing.
- B. a draw is the fairest method in allocating resources.
- C. the price of this type of housing is below its cost.
- D. the price of this type of housing is below the equilibrium price.

1995/CE/II/12



In the above figure, the market price of good X is fixed by the government at P_1 . If the demand increases from D to D' ,

- (1) the excess demand will be greater.
- (2) the quantity transacted will not change.
- (3) the sales revenue will increase when the demand is elastic.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

1996/CE/II/08

Shortage occurs when

- A. a price floor below the equilibrium price is imposed.
- B. an effective price ceiling is imposed.
- C. the supply is reduced.
- D. the demand increases sharply.

1996/CE/II/09

Suppose initially the price of a certain good is fixed below the market equilibrium. Relaxing the price control will lead to

- (1) an increase in revenue.
- (2) a decrease in demand.
- (3) an increase in revenue only if the demand for this good is inelastic.
- (4) an increase in the quantity supplied.

- A. (1) and (2) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (3) and (4) only

1997/CE/II/56

Suppose the government has put an end to all sorts of rent control in Hong Kong. This measure would NOT

- A. lead to a wider wealth gap.
- B. increase the property tax revenue.
- C. lead to a shortage in the property market.
- D. increase the quantity supplied of rental accommodation.

1998/CE/II/04

If a price floor is set below the equilibrium price of good X,

- A. a shortage of good X will occur.
- B. the quantity transacted will decrease.
- C. the total revenue may increase or decrease, depending on the elasticity of demand for good X.
- D. the total revenue will remain unchanged.

1999/CE/II/06

Unit price (\$)	Quantity Demanded (units)	Quantity Supplied (units)
7	8	20
6	12	18
5	16	16
4	20	14
3	24	12

Refer to the above supply and demand schedule for good X. The government sets its minimum price at \$4 per unit. What would happen if the government raised the minimum price to \$6 per unit?

- A. The shortage of good X would disappear.
- B. The quantity transacted would increase.
- C. Consumer expenditure on good X would decrease.
- D. The surplus of good X would decrease.

2000/CE/II/06

Hong Kong's recent economic recession has caused a decline in people's income. In view of this, the government decided to lower the effective minimum wage level of Filipino maids. As a result of these TWO changes,

- (1) The demand for Filipino maids should decrease.
- (2) The quantity supplied of Filipino maids should decrease.
- (3) The excess supply of Filipino maids should decrease.
- (4) The total expenditure on the employment of Filipino maids should drop.

- A. (1) and (2) only
- B. (2) and (3) only
- C. (1), (2) and (3) only
- D. (1), (3) and (4) only

2002/CE/II/06

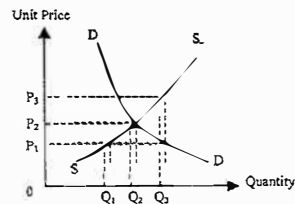
The following table shows the supply of and demand for Good X.

Unit price (\$)	Quantity demanded (units)	Quantity supplied (units)
2	20	4
4	16	8
6	12	12
8	8	16
10	4	20

If the government raises the price ceiling from \$4 per unit to \$8 per unit, the quantity transacted will

- A. increase by 4 units.
- B. increase by 8 units.
- C. decrease by 8 units.
- D. decrease by 4 units.

2004/CE/II/12



Refer to the above diagram. Which of the following statements is correct?

- A. If a price ceiling is set at P₁, the quantity transacted is Q₃.
- B. If a price floor is set at P₁, the quantity transacted is Q₃.
- C. If a price floor is set at P₃, the quantity transacted is Q₂.
- D. If a price ceiling is set at P₃, non-price competition will occur.

2004/CE/II/13

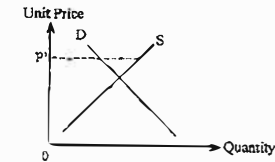
When the Real Madrid football team visited Hong Kong, many people queued up for days for the tickets to watch the game. Some people complained that they were unable to buy a ticket even they were willing to pay the official ticket price. This implies that

- (1) there was only price competition for the ticket.
- (2) the official ticket price was set below the market clearing level.
- (3) the opportunity cost of obtaining a ticket was higher than its official selling price.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2005/CE/II/13

As shown in the following graph, the government of a certain country has fixed the price of agricultural products at P'.



If the price of fertilizers falls, what will happen to the agricultural products? There will be

- A. a larger excess demand.
- B. an increase in the quantity transacted.
- C. an increase in the sales revenue.
- D. a larger excess supply.

2007/CE/II/07

An imposition of a minimum wage legislation would increase

- A. the employment opportunities of unskilled workers.
- B. the total wage payment to unskilled workers.
- C. the unemployment of unskilled workers.
- D. the inflow of foreign investment.

2008/CE/II/11

The following table shows the demand and supply schedules of rice:

Unit price (\$)	Quantity demanded (units)	Quantity supplied (units)
5	10	25
4	12	20
3	15	15
2	20	10
1	27	5

If the controlled price is raised from \$2 to \$4 per unit, sellers' total revenue will increase from _____ to _____.

- A. \$20 \$45
- B. \$20 \$48
- C. \$40 \$48
- D. \$45 \$48

2008/CE/11/12

If the government raises the effective minimum wage of imported workers,

- A. the employment of imported workers will increase.
- B. the problem of shortage of imported workers will become more serious.
- C. the unemployment rate of local workers will increase.
- D. the total wage earnings of local workers will increase.

2009/CE/11/08

Suppose the government imposed an effective price ceiling on good X. If the government raises the effective price ceiling, the total consumer expenditure on good X

- A. would increase.
- B. would decrease.
- C. would remain unchanged.
- D. may increase, decrease or remain unchanged depending on the elasticity of demand.

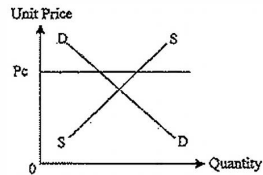
2009/CE/11/11

The government is planning to introduce legislation on a minimum wage across industries. A result of imposing an effective minimum wage is that

- A. the average wage earnings of employed low-income workers must increase.
- B. the total wage earnings of employed low-income workers must increase.
- C. the demand for low-income workers must decrease.
- D. the supply of low-income workers must increase.

2010/CE/11/14

The diagram below shows the market of Good Z.

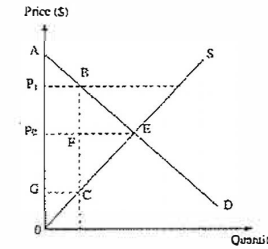


If the government imposes a maximum price control on Good Z at $\$P_c$ per unit, there would be

- A. an excess demand for Good Z.
- B. an excess supply of Good Z.
- C. no change in consumers' total expenditure on Good Z.
- D. an increase in consumers' total expenditure on Good Z.

PP/DSE/1/15

The following diagram shows the demand and supply curves of good X in a perfectly competitive market.

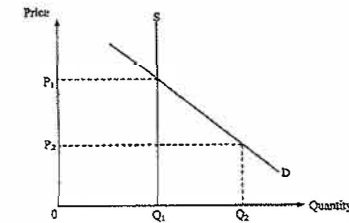


Suppose a price floor is set at P_1 . As a result,

- A. the deadweight loss is equal to area BEF.
- B. the producer surplus is equal to area P_1BCO .
- C. the consumer surplus is equal to area AEP_e.
- D. the total social surplus is equal to area P_1BCG .

2013/DSE/1/14

Refer to the following demand-supply diagram.



If the government raises the price floor from P_2 to P_1 , the total revenue received by the sellers.

- A. will rise.
- B. will fall.
- C. will remain unchanged.
- D. may rise or fall, depending on the price elasticity of demand.

2013/DSE/1/15

Suppose the government introduces an effective rent control which sets a maximum rental per square feet the landlords can charge to any tenants. Which of the following statements is correct?

- (1) There will be a shortage of rental units.
- (2) The landlords will have less incentive to rent out their flats.
- (3) The landlords will spend less on maintenance of the rental flats.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2014/DSE/I/21

Which of the following are results of the government lowering an effective price ceiling on a good?

- (1) a reduction in the producer surplus
- (2) an increase in excess demand
- (3) an increase in the total sales revenue if the demand is elastic

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

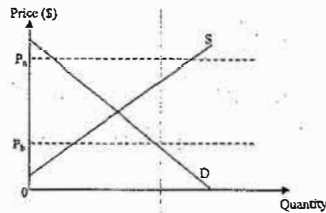
2015/DSE/I/13

Many people queued up for days the tickets to watch the show of Tsz-Wah, a famous artist performing stand-up comedy. Some people complained that they were unable to buy tickets even though they were willing to pay the ticket price set by the organiser. The above situation implies that

- A. price was the only criterion for allocating the tickets.
- B. the producer was not maximising its profit.
- C. a black market for the tickets might emerge.
- D. there was an effective price ceiling in the ticket market.

2015/DSE/I/19

Refer to the following diagram.



If the government lowers the price ceiling from P_a to P_b ,

- A. The quantity transacted will increase.
- B. The deadweight loss will decrease.
- C. The producer surplus will decrease.
- D. The consumer surplus will increase.

2017/DSE/I/18

Suppose the government imposed an effective rent control on living units. Which of the following would LEAST likely occur?

- A. There would be a shortage of living units.
- B. Black market would emerge.
- C. Poor people would be able to rent a living unit more easily.
- D. Landlords would have a lower incentive to renovate their living units for rent.

2017/DSE/I/23

If the government raises the effective price floor on Good X and at the same time the price of its substitute increases, the consumer surplus in the market of Good X _____

- A. will increase
- B. will decrease
- C. will remain unchanged
- D. may increase or decrease

2018/DSE/I/18

Refer to the following supply and demand schedules for Good X.

Unit price (\$)	15	12	11	10	9	8	7
Quantity demanded (units)	70	80	90	100	110	120	130
Quantity supplied (units)	130	120	110	100	90	80	70

Suppose the government increases the price ceiling from \$8 to \$12. Which of the following statements is correct?

- A. There would be a shortage of 40 units of Good X.
- B. There would be a surplus of 40 units of Good X.
- C. The total expenditure on Good X would increase by \$360.
- D. The quantity transacted of Good X would remain unchanged.

Short & Structured Questions

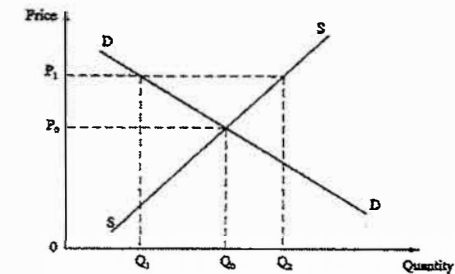
1990/CE/I/1(b)

Suppose the Hong Kong government drastically increases the minimum wage rate of Filipino maids.

- (i) With the aid of a diagram, explain why the total wage earnings of Filipino maids in Hong Kong might decrease. (3 marks)
- (ii) With the aid of a diagram, explain what would be the effect on the equilibrium wage and quantity of local maids. (7 marks)

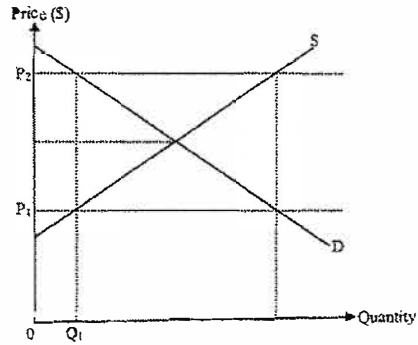
1994/CE/I/3

The following diagram shows the supply and demand curves of a certain product:



If the government imposes a 'price-ceiling' at P_1 , what will be the market price and quantity transacted? Explain your answer. (4 marks)

Refer to the following supply-demand diagram for Good X.

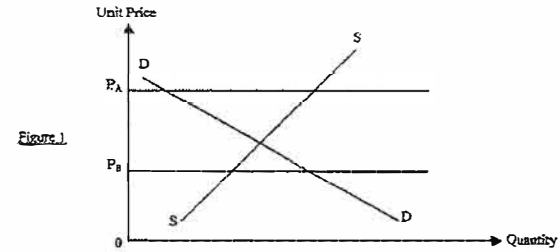


If the price floor of Good X changes from P_1 to P_2 ,

- A. producer surplus will increase.
- B. quantity transacted of Good X will remain at Q_1 .
- C. deadweight loss will increase.
- D. excess demand of Good X will change to excess supply.

2006/CE/II/1

Figure 1 shows the market supply and market demand curves of good X. Suppose the government lowered the price ceiling from P_A to P_B .



- (a) Explain whether the initial price ceiling P_A is effective or not. (2 marks)
- (b) Explain how a fall in the price ceiling to P_B would affect consumers' total expenditure on good X. Indicate the change in consumers' total expenditure in Figure 1. (4 marks)

2012/DSE/II/5

Country A has imposed an effective price ceiling on Good X.

- (a) Suppose Country A eliminates all illegal transactions of Good X. Can this price control ensure all lower income buyers obtain the quantity of Good X they plan to purchase? Explain. (4 marks)
- (c) Suppose the effective price ceiling is lowered. Will the change in price ceiling improve economic efficiency? Explain your answer with the aid of a diagram. (4 marks)

2013/DSE/II/10(c)

The Hong Kong government has introduced an effective minimum wage. Subsequently, many restaurant owners claim that they are unable to employ enough workers for their restaurants at the minimum wage rate. With the aid of a demand-supply explain why the above phenomenon may arise. (9 marks)

2014/DSE/II/3

Figure 1 shows the market supply and demand curves of Good X. Suppose the government raises the price floor from P_a to P_b .

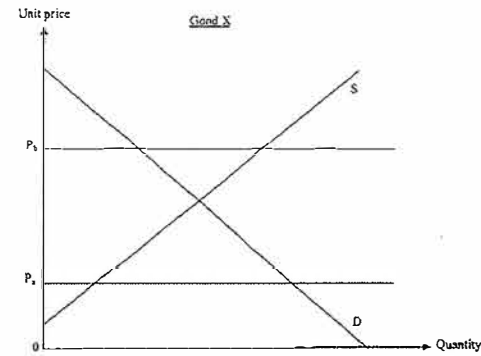


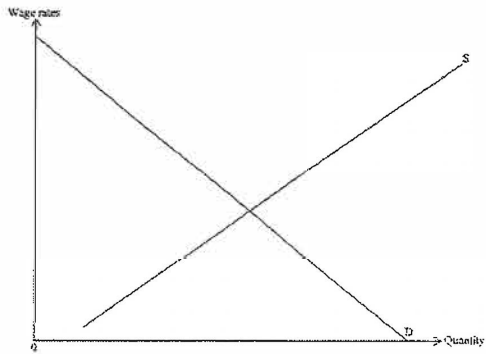
Figure 1

With the aid of Figure 1, explain whether the rise in the price floor could enhance economic efficiency. (6 marks)

2018/DSE/II/10

Foreign domestic helpers are paid with a minimum wage at HK\$4 410 per month for a two-year contractual period in Hong Kong.

Figure 2: Foreign Domestic Helpers in Hong Kong



- (c) Suppose the minimum wage in the market of foreign domestic helpers in Hong Kong is effective. With the aid of Figure 2, explain how it may result in economic inefficiency. (4 marks)

It is reported that the Mainland market is about to open its doors to maids from the Philippines, offering them a salary several times higher than the minimum wage for foreign domestic helpers in Hong Kong.

- (d) Some employers in Hong Kong claimed, 'Even if we offer higher wages to foreign domestic helpers, there will still be insufficient foreign domestic helpers in Hong Kong after the opening of the Mainland market to maids from the Philippines.' With the aid of Figure 2, explain why the above claim may be correct. (6 marks)
- (e) Other than insufficient foreign domestic helpers, suggest ONE phenomenon that may be observed in the market of foreign domestic helpers in Hong Kong after the opening of the Mainland market to maids from the Philippines. (1 mark)

2020/DSE/II/10 D

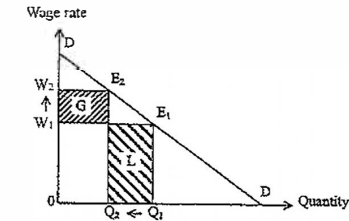
- (d) The US government could impose quota to restrict imports. From the viewpoint of the US government, state ONE advantage and ONE disadvantage of using tariff instead of quota to restrict imports. (2 marks)

MARKING SCHEME

1990/CE/II/04 D	1996/CE/II/08 B	2004/CE/II/12 B (43%)	2009/CE/II/11 A (40%)	2017/DSE/II/18 C (47%)
1992/CE/II/24 D	1996/CE/II/09 B	2004/CE/II/13 C (60%)	2010/CE/II/14 C (44%)	2017/DSE/II/23 D (47%)
1992/CE/II/27 A	1997/CE/II/56 C	2005/CE/II/13 D (49%)	2013/DSE/II/14 C (41%)	2018/DSE/II/18 C (62%)
1993/CE/II/27 B	1998/CE/II/04 D	2007/CE/II/07 C (46%)	2013/DSE/II/15 D (54%)	2020/DSE/II/20 C
1994/CE/II/10 A	1999/CE/II/06 C	2008/CE/II/11 B (52%)	2014/DSE/II/21 A (65%)	
1995/CE/II/09 D	2000/CE/II/06 A	2008/CE/II/12 D (47%)	2015/DSE/II/13 C (57%)	
1995/CE/II/12 A	2002/CE/II/06 A (35%)	2009/CE/II/08 A (50%)	2015/DSE/II/19 C (67%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1990/CE/II/1(b)
(i)



Indicate in the graph:

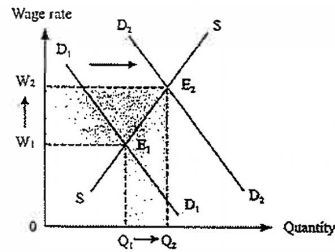
- $W \uparrow$ & $Q \downarrow$
- position of 'G' and 'L'
- $G < L$

(1)
(1)
(1)

Verbal explanation:

- Assume that the demand for Filipino maids is elastic, (2)
- the percentage change in quantity demanded is larger than the percentage change in wage rate. (2)
- In other words, the increase in earnings from the increase in wage rate is smaller than the decrease in earnings from the decrease in quantity demanded. (1)

(ii)



Indicate in the graph:

- demand curve shifts to the right
- $W \uparrow$
- $Q \uparrow$

(1)
(1)
(1)

Verbal explanation:

The demand for local maids will increase, because Filipino maids and local maids are substitutes. The equilibrium wage rate will increase. The equilibrium quantity will increase.

(1)
(1)
(1)
(1)

1994/CE/3

Market price = P_0

Quantity transacted = Q_0

The price ceiling is ineffective, because it is higher than the equilibrium price.

(1)
(1)
(1)
(1)

2006/CE/1

(a) No, because

P_A is above the equilibrium price.

(1)
(1)

(b)

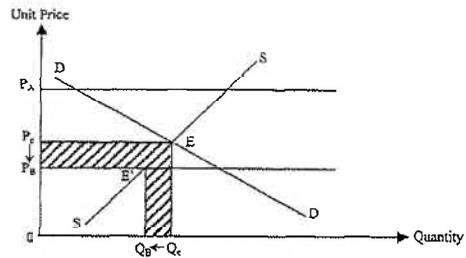


Diagram:

- original total expenditure = area OP_eEQ_e0

- new total expenditure = area $OP_nE'Q_n0$

QR indication of the decrease in total expenditure, e.g., the shared area

(1)
(1)

Verbal Elaboration:

- price \downarrow from P_e to P_n and quantity transacted \downarrow from Q_e to Q_n
- total expenditure of consumers decreases

(1)
(1)

2012/DSE/11/5

(a) No, because

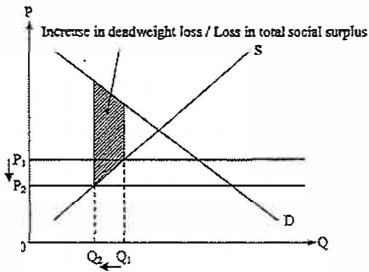
there is excess demand / shortage.
other competitive criteria/non-price competition, such as queuing, will emerge.
the new competitive criteria do not necessarily depend on income.

(1)
(2) } Max: 3
(2)

(c) No, because

there is greater deadweight loss / total social surplus decreases.

(1)
(1)

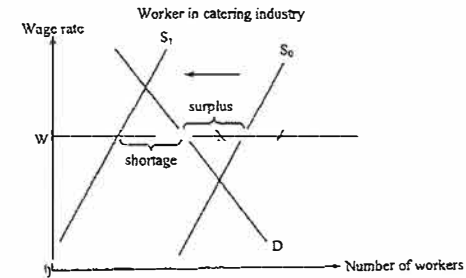


Indicate in the diagram:

- lowering of the price ceiling
- correct position of increase in deadweight loss / loss in total social surplus

(1)
(1)

2015/DSE/11/10(c)



Indicate on the diagram:

- wage rate set above the original equilibrium
- surplus
- magnitude of the leftward shift of the supply curve greater than the surplus
- final shortage

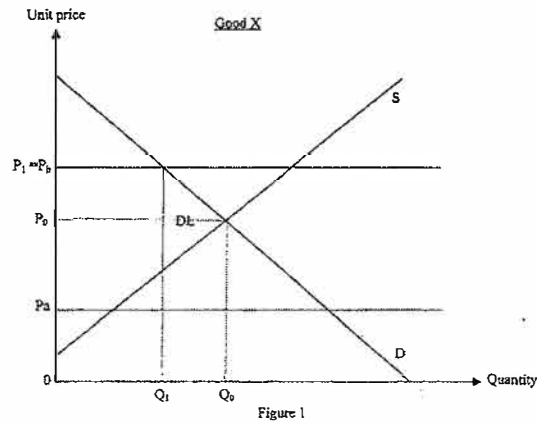
(1)
(1)
(2)
(1)

Verbal elaboration:

An effective price floor will create a surplus of workers. If the restaurant workers change to work in other industries (for example, turn into security guards), the supply of workers in this industry drops, and there may be a shortage for workers at the minimum wage rate.

(1)
(1)
(1)
(1)

2014/DSE/11/3



Indicate on the diagram:

- correct P_1 , Q_1
- correct P_1 , Q_1
- correct position of deadweight loss (DL)

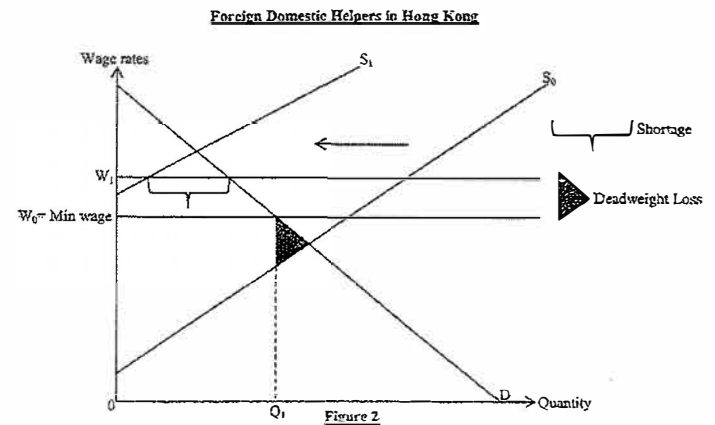
(1)
(1)
(1)

Verbal elaboration:

No, because
the ineffective price floor (P_a) becomes an effective price floor (P_b)
at the new quantity (where the horizontal P_b -line intersects the demand,
marginal benefit (maximum willingness-to-pay) is higher than marginal cost, and there exists a deadweight loss,

(1)
(1)
(1)
(1)
(Max: 6)

2018/DSE/11/10



(c) Illustrate in Figure 2:

- correct position of minimum wage
- correct position of Q_1
- correct position of deadweight loss

(1)
(1)
(1)

Verbal elaboration:

At Q_1 , marginal benefit is greater than marginal cost.

(1)

(d) Illustrate in Figure 2:

- leftward shift of supply curve
- correct position of shortage at the higher wage rate

(1)
(2)

Verbal elaboration:

Filipino maids working in the Mainland and Filipino domestic helpers in Hong Kong are in competitive supply.
If competition from the Mainland sharply reduces the supply of foreign domestic helpers in Hong Kong,
then shortage of such workers could still arise even at a higher wage rate.

(1)
(1)
(1)

(e) Employers may try to recruit domestic helpers from other countries to work in Hong Kong.

OR

The minimum wage may be raised / abolished by the government.

(1@, max: 1)

2020/DSE/11/10 D

D) Advantage of tariff over quota : The tariff revenue collected must go to government (quota revenue may belong to private firms / importers)

Disadvantage of tariff over quota : It may not be effective in controlling the import level while the local demand increase (the import level can still increase under tariff if demand increase but quota will not)

8.2 QUOTA

1993/CE/II/53

Country A prefers to impose quotas rather than tariffs in restricting the amount of imports. Which of the following is a possible reason?

- A. The government wants to increase its revenue.
- B. The effect of quotas on the amount of imports will be more certain.
- C. Local consumers can enjoy cheaper imports.
- D. It will lead to less retaliation from the exporting countries.

1994/CE/II/12

If the government imposes an effective quota on good Y, the market price of Y will _____ and its quantity transacted will _____.

- A. increase increase
- B. increase decrease
- C. decrease increase
- D. decrease decrease

1994/CE/II/13

If the government imposes an effective quota on good Y, the consumers' total expenditure on good Y will _____.

- A. decrease
- B. increase.
- C. remain unchanged
- D. increase or decrease, depending on the price elasticity of demand for good Y.

1999/CE/II/07

The abolition of an effective quota on an imported good will result in

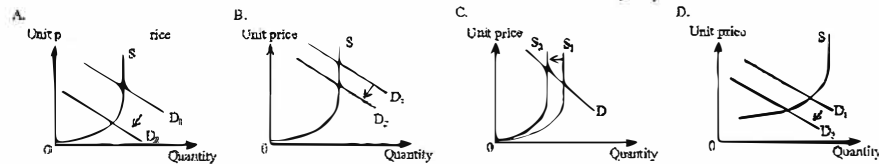
- (1) a fall in its price
- (2) an increase in its import volume
- (3) an increase in its total sales revenue.
- (4) an improvement in its quality.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

1999/CE/II/45

According to a news report, the use of U.S. import quota for Hong Kong garments has decreased because of keen competition from other Asian countries. This has led to some of the quota remaining unused for the first time.

Which of the following diagrams correctly shows the situation of Hong Kong's garment exports in the U.S. market as described above?



2000/CE/II/49

Suppose the US government decreases the quota for HK garments exported to the USA. This will lead to

- A. a shortage of HK garments in the USA.
- B. an increase in the income of garment producers in the USA.
- C. a surplus in the balance of trade in the USA.
- D. a decrease in the expenditure of US consumers on HK garments.

2005/CE/II/10

Good X (unit price)	Quantity demanded in the market (unit)	Quantity supplied in the market (unit)
\$6	60	40
\$9	55	45
\$12	50	50
\$15	45	55
\$18	40	60

If the government fixes the production quota of Good X at 45 units, the market price of Good X will be

- A. \$9
- B. \$12
- C. \$15
- D. \$18

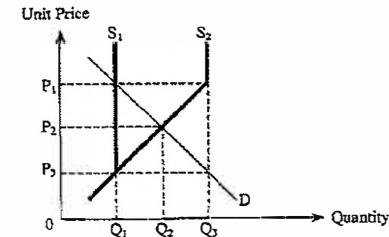
2005/CE/II/48

If the US government cancels the effective import quota restrictions on the textile products from Hong Kong, then the US import price of Hong Kong textile products will _____ and US import spending on Hong Kong textile products will _____.

- A. rise increase
- B. rise be indeterminate
- C. fall increase
- D. fall be indeterminate

2006/CE/II/10

In Country A, there is a quota restriction on an imported good. When the import quota quantity is Q_1 , the market price of the good is P_1 .



Now suppose Country A increases the quota quantity from Q_1 to Q_3 as shown in the diagram below. As a result, the new total sales revenue would be

- A. $P_1 \times Q_1$
- B. $P_2 \times Q_2$
- C. $P_1 \times Q_3$
- D. $P_3 \times Q_3$

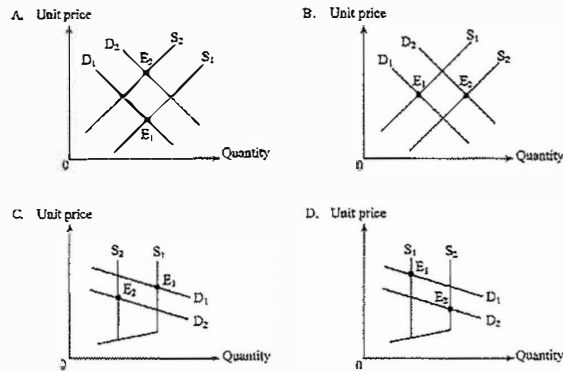
2007/CE/II/08

China abolished the car import quota system in 2005. As a result, _____ in China will increase.

- A. the price of cars
- B. the sales volume of cars
- C. the income of workers in the car manufacturing industry
- D. the revenue from car sales

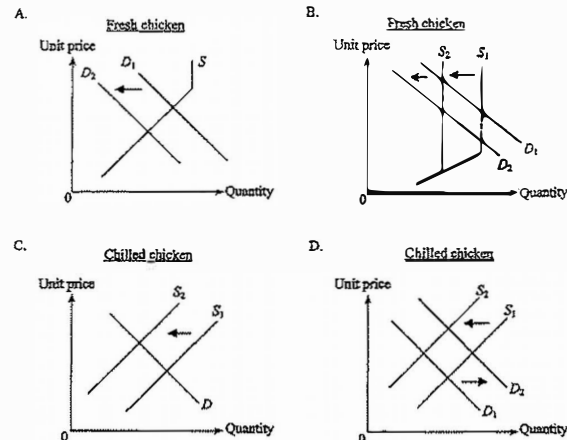
2008/CE/II/09

Country A reduces the quantity of an effective quota on clothing imported from Country B. At the same time, imported clothing from other countries to Country A has become cheaper. Which of the following graphs can illustrate the changes in Country A's market of clothing imported from Country B? E_1 is the original equilibrium point and E_2 is the new equilibrium point.



2009/CE/II/12

Last year, the government reduced the import quota of fresh chicken into Hong Kong. On the other hand, many Hong Kong citizens have changed their habit of consuming fresh chicken to consuming chilled chicken. Which of the following diagrams illustrates this phenomenon?



2010/CE/II/13

If the Hong Kong government abolishes the import quota on live chickens from mainland China,

- A. the price of live chickens in Hong Kong will increase.
- B. the total sales revenue from live chickens in Hong Kong may increase.
- C. the sales volume of chilled chickens in Hong Kong will increase.
- D. the total expenditure on chilled chickens in Hong Kong may increase.

2012/DSE/II/19

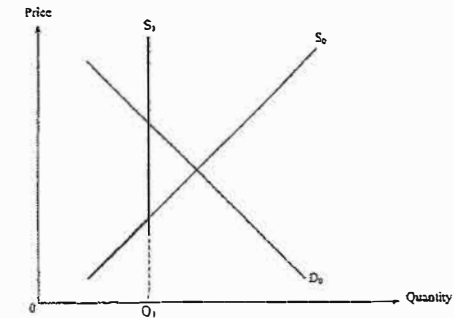
The increase of an effective quota on a good will result in

- (1) an increase in the quantity transacted of the good.
- (2) a further improvement in the quality of the good.
- (3) a smaller deadweight loss.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2013/DSE/II/19

Refer to the following demand-supply diagram of a good with the government setting a quota at Q_1 .



Which of the following will be the result of a reduction in quota on the good?

- (1) The total expenditure on the good may increase or decrease.
- (2) The consumer surplus will decrease
- (3) The total social surplus on the good may increase or decrease.

- A. (1) only
- B. (1) and (2) only
- C. (1) and (3) only
- D. (1), (2) and (3)

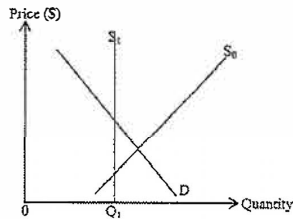
2014/DSE/II/23

Suppose the supply curves of cars and petrol are upward-sloping. If the government imposes an effective quota on the production of cars,

- A. the total social surplus in the car market will increase.
- B. the producer surplus in the car market will decrease.
- C. the total social surplus in the petrol market will decrease.
- D. the consumer surplus in the petrol market will increase.

2017/DSE/1/24

Refer to the following supply-demand diagram of a good with a quota set at Q_1 by the government.



Which of the following will be the results of a reduction in quota on the good?

- (1) The total expenditure on the good may increase.
- (2) The consumer surplus will decrease.
- (3) The total social surplus may increase.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Short & Structured Questions

1997/CE/1/10(b)

If a country imposes an effective quota on the quantity of its import, explain and indicate clearly on a supply-demand diagram how the market price and the volume of the import would change. (8 marks)

1998/CE/1/2

Suppose the government increases the quota on the quantity of an import and the increased quota is still effective. With the aid a diagram, explain whether the market price of the import would increase or not. (4 marks)

2001/CE/1/9(b)

Suppose the importing economy reduces the effective quota on the quantity of garments imported. With the aid of a diagram, explain under what condition the total expenditure of this economy on imported garments would decrease. (9 marks)

2008/CE/1/11(b)

Trade deficit is a concern of many countries.

In the past, the US imposed a quota restriction on imports of Hong Kong made garments. However, US import value (in terms of US\$) of Hong Kong-made garments still increased with the quota restriction. Give ONE reason to explain why. (2 marks)

2015/DSE/1/3

An increase in an effective quota in the market of a good would lead to a reduction in deadweight loss. Do you agree? Explain your answer with the aid of a diagram. (6 marks)

2019/DSE/1/14

Refer to the following market demand for imported soybeans in Country A.

Price (\$)	10	11	12	13	14
Quantity demanded (units)	700	600	500	400	300

When the government of Country A imposes a per-unit tariff of \$3 on imported soybeans, the equilibrium price of the imported soybeans increases from \$11 to \$13.

Which of the following statements are correct?

- (1) The total sales revenue (net-of-tariff) of the imported soybeans is \$4000.
- (2) The supply of the imported soybeans is more elastic than the demand for them.
- (3) Within the range of the original and the new equilibrium prices, the elasticity of demand of the imported soybeans is smaller than one.

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2019/DSE/1/15

15. A new private hospital, Gleneagles Hong Kong Hospital (GHK), opened in Wong Chuk Hang in early 2017. GHK offered a 50% salary rise to attract experienced nurses from public hospitals.

Based on the above information, which of the following statements is correct after the opening of GHK?

- A. The wage rates of experienced nurses in public hospitals would increase by more than 50% if the demand for nurses is elastic.
- B. The supply of experienced nurses in public hospitals would decrease.
- C. The elasticity of demand of public medical services would decrease.
- D. The waiting time for public medical services would remain unchanged.

2019/DSE/1/16

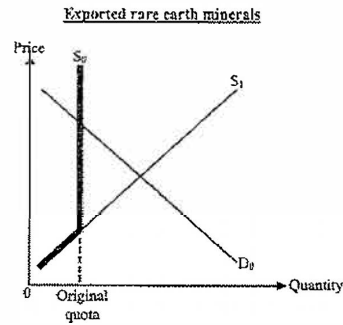
Refer to the following supply and demand schedules of Good X.

Unit price (\$)	18	16	14	12	10	8	4
Quantity demanded (units)	100	150	200	250	300	350	400
Quantity supplied (units)	400	350	300	250	200	150	100

If the government increases the quota for Good X from 200 units to 350 units, the market price will

- A. increase by \$2
- B. increase by \$6
- C. decrease by \$2
- D. decrease by \$6

Refer to the following supply-demand diagram for the exported Chinese rare earth minerals.



If China abolished the quota on the export of rare earth minerals,

- (1) the export price of the rare earth minerals would drop.
- (2) the export quantity of the rare earth minerals would rise.
- (3) the total exchange value of the exported rare earth minerals would drop.

- A. (1) and (2) only
 B. (1) and (3) only
 C. (2) and (3) only
 D. (1), (2) and (3)

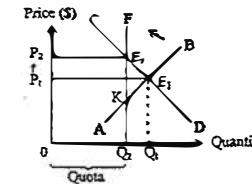
MARKING SCHEME

1993/CE/1/53 B	1999/CE/1/45 A	2006/CE/1/10 B (52%)	2010/CE/1/13 B (63%)	2017/DSE/1/24 A (69%)
1994/CE/1/12 B	2000/CE/1/49 B	2007/CE/1/08 B (62%)	2012/DSE/1/19 B (56%)	2019/DSE/1/14 A
1994/CE/1/13 D	2005/CE/1/10 C (39%)	2008/CE/1/09 C (54%)	2013/DSE/1/19 B (59%)	2019/DSE/1/15 B
1999/CE/1/07 A	2005/CE/1/48 D (46%)	2009/CE/1/12 B (78%)	2014/DSE/1/23 C (66%)	2019/DSE/1/16 C

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

2020/DSE/1/16
A

1997/CE/1/10(b)



Indicate in the diagram:

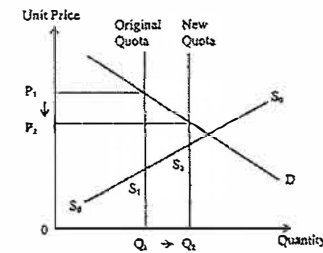
- original supply curve AB
- quota $\Rightarrow Q_1 \rightarrow Q_2$
- new supply curve ($AK + KF$) / quota quantity
- new market price P_2

- (1)
 (1)
 (1)
 (1)

Elaboration:

- The supply of imports decreases, because the effective quota quantity is smaller than the initial equilibrium quantity. (2)
- The market price increases. (1)
- The import volume decreases. (1)

1998/CE/1/2



Indicate in the diagram:

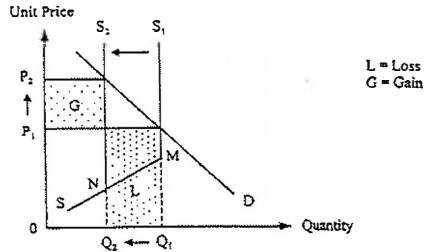
- quota
- $P \downarrow$

- (1)
 (1)

Elaboration:

The supply of imports increases.
The market price falls.
2001/CE/1/9(b)

(1)
(1)



Indicate in the graph:

- correct supply curve to show the original quota is effective
- S₁ shifts leftward to S₂
- loss > gain

(1)
(1)
(2)

Verbal explanation:

The supply decreases.
After reduction of quota quantity, the quantity transacted decreases and the price increases.
The condition is that the demand is elastic,
the percentage change in quantity demanded is larger than the percentage change in price.

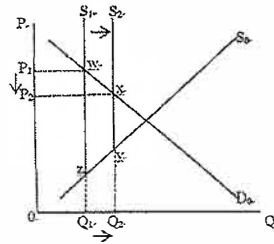
(1)
(1)
(1)
(2)

2008/CE/1/11(b)

There was quality improvement in Hong Kong-made garments.
(Because one unit of quota must be used for one unit of garment regardless of garment quality, and because the quota has a positive value.) the price of higher quality garment fell relative to lower quality garments under the quota system.

(1)
(1)

2015/DSE/1/3



Indicate on the diagram:

- rightward shift of the supply curve corresponding to an increase in quota
- a reduction in P and a rise in Q
- correct position for the reduction in deadweight loss (area wxyz)

(1)
(1)
(1)

Verbal elaboration:

Yes (I agree), because
the increase in effective quota would raise the supply and thus raise the quantity transacted and reduce the price, and
the gap between marginal benefit and marginal cost is reduced as the quantity produced is increased toward its efficient level.

(1)
(1)
(1)

8.3 UNIT TAX & SUBSIDY

Multiple Choice Questions

1990/CE/11/51

Suppose the government increases the tax on cigarettes by \$2. Consequently, the price of each packet of cigarettes increases by \$1.5. Which of the following statements is true?

- A. The producers bear 1/4 of the tax
- B. The demand for cigarettes is elastic
- C. The supply of cigarettes is elastic
- D. The tax is progressive in nature

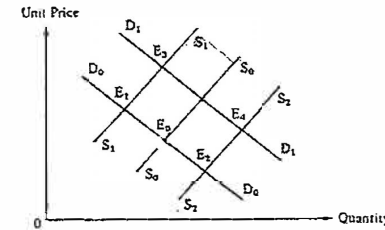
1991/CE/11/58

Suppose the government raises the first registration tax on newly-imported cars by \$ 10 000. Which of the following is FALSE?

- A. The market price of all newly-imported cars will increase by \$10 000.
- B. The market price of second-hand cars will increase.
- C. The tax burden can be shifted to the consumers.
- D. The number of cars newly imported will decrease.

1992/CE/11/25

The diagram below shows the demand and supply of Good X. The original equilibrium point is E₀.



If the government imposes an excise tax on the good, the equilibrium point will change from E₀ to

- A. E₁
- B. E₂
- C. E₃
- D. E₄

1993/CE/11/29

A tax is imposed on a commodity. The tax burden on the consumers is relatively smaller if the commodity has an _____ demand and an _____ supply.

- A. elastic elastic
- B. elastic inelastic
- C. inelastic elastic
- D. inelastic inelastic

For Question No.8 and 9, consider the following supply and demand schedule of wine in a certain country:

Price (\$)	Quantity demanded (Units)	Quantity supplied (Units)
30	90	60
32	80	65
34	70	70
36	60	75
38	50	80
40	40	85

1994/CE/II/08

Suppose initially the wine market is in equilibrium. If the government imposes a tax of \$6 for each unit of wine sold, the new equilibrium price will be

- A. \$32
- B. \$36
- C. \$38
- D. \$40

1994/CE/II/09

Government revenue from the above tax will be _____.

- A. \$240
- B. \$300
- C. \$360
- D. \$420

1996/CE/II/07

Price (\$)	Quantity demanded (units)	Quantity supplied (units)
6	60	40
8	55	45
10	50	50
12	45	55
14	40	60

Refer to the above information about a good. What will be the consumer tax burden if a per-unit tax of \$ 4 is imposed?

- A. \$90
- B. \$100
- C. \$110
- D. \$180

1998/CE/II/41

Suppose the sales tax rate of a good is raised. Which of the following statement is correct?

- A. The total expenditure on the good will increase.
- B. There will be inflation.
- C. The total revenue net of tax to sellers will fall if the supply curve is upward sloping.
- D. Income will be redistributed from the poor to the rich.

Refer to the following supply and demand schedule for good Y and answer questions 8 and 9

Unit price (\$)	12	11	10	9	8	7
Quantity demanded (Units)	40	60	80	100	120	140
Quality supplied (units)	280	240	200	160	120	80

1999/CE/II/08

If the government imposed a \$3 per unit tax on Y, what would the new total sales revenue be?

- A. \$360
- B. \$800
- C. \$960
- D. \$1320

1999/CE/II/09

The ratio of the buyers' tax burden to the sellers' tax burden is

- A. 1 : 1
- B. 2 : 1
- C. 1 : 2
- D. 3 : 0

2001/CE/II/08

Suppose a per unit sales tax is imposed on good X. The sellers would bear a relatively smaller proportion of the tax burden if the demand for the good is _____ and the supply is _____.

- A. elastic elastic
- B. elastic inelastic
- C. inelastic elastic
- D. inelastic inelastic

2003/CE/II/06

If a country reduces a per-unit tariff on its imported garments,

- A. the domestic demand for imported garments would increase.
- B. local consumers' expenditure on imported garments would increase.
- C. the sales revenue of domestic garment producers would decrease.
- D. the tariff revenue of the country coming from imported garments would decrease.

Answer Questions 11 and 12 by referring to the following market demand schedule of a good.

Price (\$)	11	12	13	14
Quantity demanded (unit)	160	140	120	100

2003/CE/II/11

Suppose the government imposes a unit sales tax of \$3 on the good. As a result, the equilibrium price of the good increases from \$12 per unit to \$13 per unit. Which of the following descriptions is correct?

- A. The consumers bear a larger tax burden than the producers.
- B. The elasticity of demand of the good is greater than 1.
- C. The total tax burden is \$120.
- D. The total sales revenue (including tax) has increased.

2003/CE/11/12

If the equilibrium price of the good falls back to \$12 per unit due to a decrease in production cost,

- A. the producers will bear all the tax burden.
- B. the total tax burden will be \$360.
- C. there will be excess demand.
- D. the total sales revenue net of tax will be \$1 260.

2003/CE/11/42

Suppose the government of Hong Kong introduces a general sales tax. It follows that

- A. the sales revenue net of tax to the sellers will decrease.
- B. there will be a persistent increase in the general price level.
- C. income will be redistributed from the rich to the poor.
- D. the consumption expenditure of Hong Kong will increase.

2005/CE/11/09

Under the Closer Economic Partnership Arrangement (CEPA), some of Hong Kong made goods exported to the Chinese mainland will enjoy zero tariffs. As a result, in the mainland,

- A. the price of these goods will rise.
- B. the price of these goods will fall.
- C. the total expenditure on these goods will rise.
- D. the total expenditure on these goods will fall.

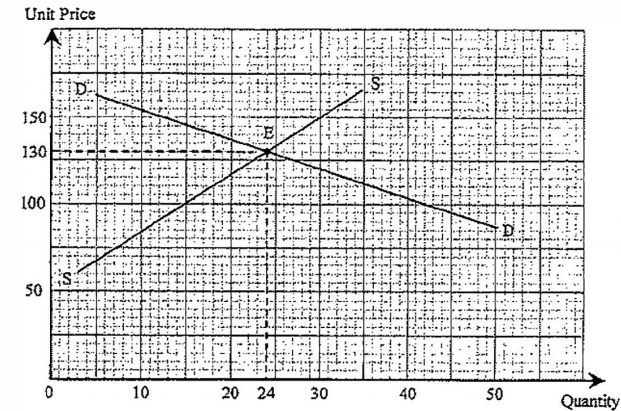
2005/CE/11/11

Good X (unit price)	Quantity demanded in the market (unit)	Quantity supplied in the market (unit)
\$6	60	40
\$9	55	45
\$12	50	50
\$15	45	55
\$18	40	60

If the government uses a unit tax instead to fix the output of Good X at 45 units, the unit tax imposed on Good X will be

- A. \$3
- B. \$6
- C. \$9
- D. \$12

Answer questions 11 and 12 by referring to the following information: The graph below shows the market situation of Good A when a per-unit sales tax of \$30 is charged on it.



2006/CE/11/11

Suppose the above per-unit sales tax is abolished. The new market price would be

- A. \$100.
- B. \$120.
- C. \$140.
- D. \$160.

2006/CE/11/12

Within the range of the original and new market prices, the elasticity of demand of Good A is

- A. smaller than its elasticity of supply.
- B. equal to its elasticity of supply.
- C. greater than its elasticity of supply.
- D. unity.

2008/CE/11/07

The following table shows the supply of and the demand for Good X.

Unit price (\$)	Quantity demanded (units)	Quantity supplied (units)
5	10	50
4	20	40
3	30	30
2	40	20
1	50	10

If the government imposes a \$2 per unit sales tax on Good X, the new equilibrium price will be _____.

- A. \$2
- B. \$3
- C. \$4
- D. \$5

2008/CE/II/08

Suppose the per unit sales tax on red wine is reduced. The sellers will enjoy a smaller proportion of a reduction in tax burden than the buyers if the demand for red wine is _____ and the supply is _____.

- A. elastic elastic
- B. elastic inelastic
- C. inelastic elastic
- D. inelastic inelastic

2009/CE/II/13

The following table shows the supply of and the demand for Good X.

Unit price (\$)	Quantity demanded (units)	Quantity supplied (units)
6	10	60
5	20	50
4	25	40
3	30	30
2	50	20
1	60	10

If the government imposes a \$3 per unit tax on Good X, the tax burden for consumers would be _____.

- A. \$20
- B. \$40
- C. \$60
- D. \$100

The following table shows the market of Good M.

Unit price	Quantity demanded (units)	Quantity supplied (units)
\$2	1 200	400
\$4	1 000	600
\$6	800	800
\$8	600	1 000
\$10	400	1 200

Suppose the government imposes a per unit sales tax of \$4 on Good M. Find the correct answers for questions 11 and 12.

2010/CE/II/11

The new market price is _____.

- A. \$4
- B. \$6
- C. \$8
- D. \$10

2010/CE/II/12

The total tax burden on producers is _____.

- A. \$1 200
- B. \$1 600
- C. \$2 400
- D. \$3 200

Refer to the following demand-supply schedule of good X and answer Questions 16 and 17.

Price (\$)	Quantity demanded (units)	Quantity supplied (units)
10	700	300
11	600	400
12	500	500
13	400	600
14	300	700
15	200	800

2012/DSE/II/16

If the government imposes a per unit tax of \$4 on good X,

- A. the total tax revenue will be \$2 000.
- B. the total sales revenue will drop by \$1 800.
- C. the demand for good X is inelastic.
- D. the total sales revenue of the substitutes of good X will drop.

2012/DSE/II/17

With reference to the above question, the ratio of the consumers' tax burden to the producers' tax burden is

- A. 1:1
- B. 1:3
- C. 3:1
- D. None of the above

2013/DSE/II/13

The following table shows the demand and supply schedules of good X.

Price (\$)	2	3	4	5	6	7	8
Quantity demanded (units)	90	80	70	60	50	40	30
Quantity supplied (units)	30	40	50	60	70	80	90

Suppose the government imposes a \$2 per-unit sales tax on each unit of good X sold. The total sales revenue net of tax is _____.

- A. \$180
- B. \$200
- C. \$280
- D. \$300

2014/DSE/II/22

The imposition of a per-unit sales tax on cosmetics will

- A. reduce the total expenditure on cosmetics.
- B. reduce the total sales revenue (net-of-the-tax).
- C. increase the total social surplus in the cosmetics market.
- D. increase the producer surplus in the cosmetics market.

2015/DSE/1/16

Unit Price (\$)	4	5	6	7	8
Quantity demanded (units)	16	14	12	10	8
Quantity supplied (units)	14	14	14	14	14

The government imposes a \$2 per unit tax on the good. Which of the following statements about the good is correct?

- A. Sellers' revenue net of tax is \$70.
- B. The new market is \$6.
- C. The total tax revenue is \$28.
- D. The above information is insufficient to determine the tax burden on sellers.

2017/DSE/1/16

Refer to the following supply and demand schedules for Good X.

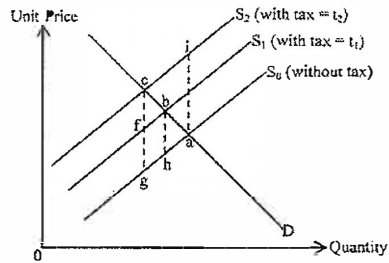
Unit Price (\$)	6	7	8	9	10	11	12	13
Quantity demanded	140	130	120	110	100	90	80	70
Quantity supplied	60	70	80	90	100	110	120	130

If the government imposed a \$2 per unit tax on Good X,

- A. sellers' revenue net of tax would become \$990.
- B. tax burden borne by the sellers would be \$90.
- C. the total tax revenue would be \$200.
- D. buyers' total expenditure on Good X would decrease by \$40.

2018/DSE/1/22

The following diagram shows the demand and supply curves of Good X.



Suppose the government increases the tax on Good X from t_1 to t_2 . Which of the following statements is correct?

- A. The deadweight loss will increase by area $bcdh$.
- B. The deadweight loss will decrease by area abb .
- C. The new deadweight loss is area bcf .
- D. The new deadweight loss is area adi .

1991/CE/II/26

When the tax on commodity X is doubled, its tax revenue is also doubled. This indicates that

- A. the demand for X is perfectly elastic.
- B. the demand for X is unitarily elastic.
- C. the supply of X is perfectly elastic.
- D. the supply of X is perfectly inelastic.

1992/CE/II/26

A tax on using the Cross-Harbour Tunnel will have the least effect on solving the Tunnel's congestion problem if

- A. the demand for the Tunnel service is elastic.
- B. the demand for the Tunnel service is inelastic.
- C. the supply of the Tunnel service is elastic.
- D. the demand for other transportation means of crossing the harbour is inelastic.

1995/CE/II/11

Suppose the government imposes a per unit sales tax of \$5 on good X. Under what condition will the price increase by \$5?

- A. The supply of X is unitary elastic.
- B. The supply of X is perfectly inelastic.
- C. The demand for X is perfectly inelastic.
- D. The demand for X is unitary elastic.

2002/CE/II/11

Suppose the government imposes a unit sales tax on a good. The producers' revenue after deduction of the sales tax will remain unchanged if

- A. the demand for the good is perfectly elastic.
- B. the demand for the good is perfectly inelastic.
- C. the supply of the good is perfectly elastic.
- D. the supply of the good is perfectly inelastic.

2004/CE/II/10

Suppose the government imposes a per unit sales tax on good X of which the supply is perfectly inelastic. Only _____ will bear the tax burden, and the quantity transacted will _____.

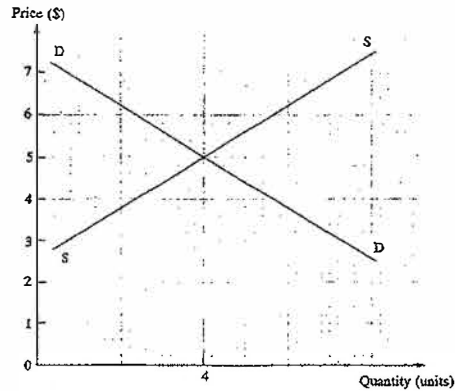
- A. sellers remain unchanged
- B. sellers decrease
- C. buyers remain unchanged
- D. buyers decrease

1990/CE/II/24

If a government abandons the policy of giving subsidy to farm products, then the price of farm products will _____ and the quantity of farm products transacted will _____.

- A. increase increase
- B. decrease decrease
- C. increase decrease
- D. decrease increase

1990/CE/II/10

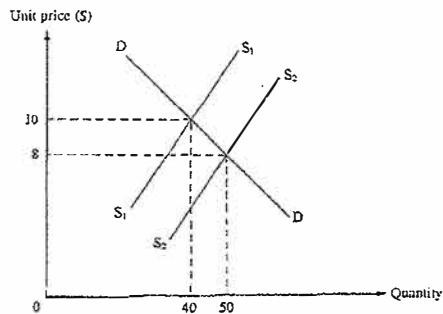


The above diagram shows the supply and demand for good X. If the government offers a subsidy of \$2 for each unit of output, the market price will

- A. decrease to \$3.
- B. decrease to \$4.
- C. increase to \$6.
- D. increase to \$7.

1996/CE/II/11

The diagram below shows that the unit price of a commodity falls from \$10 to \$8 when the government provides a per-unit subsidy of \$5 to its suppliers.



What is the total amount of suppliers' benefit from the government subsidy?

- A. \$80
- B. \$120
- C. \$150
- D. \$250

1999/CE/II/04

Case I: The market price of Good X decreases by \$4 per unit after the provision of a \$10 per unit subsidy.
Case II: The market price of Good X decreases by \$6 per unit after the provision of a \$10 per unit subsidy.

We can conclude that in comparing the two cases, Good X in Case I has a _____ demand or a _____ supply.

- A. less elastic less elastic
- B. more elastic more elastic
- C. less elastic more elastic
- D. more elastic less elastic

2000/CE/II/08

Refer to the following demand and supply schedules of a good.

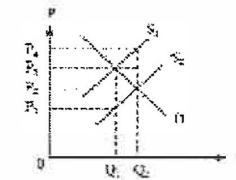
Price per unit	\$25	\$30	\$35	\$40	\$45
Quantity demanded (units)	120	100	80	75	60
Quantity supplied (units)	60	75	80	100	120

According to the above information, we can conclude that

- A. the total sales revenue would be \$3 000 when the price is \$30 per unit.
- B. a unit subsidy of \$10 on production would cause the equilibrium price to drop by \$5.
- C. a higher salaries tax would raise the market price to a price greater than \$35.
- D. the seller could set price at \$40 to gain the highest profit.

2000/CE/II/11

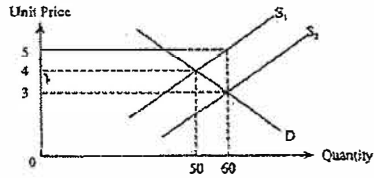
Suppose the government imposes a unit subsidy on good Y causing a shift of its supply curve from S_1 to S_2 .



The amount of subsidy benefit enjoyed by the sellers of good Y is

- A. $(P_2 - P_1) \times Q_1$
- B. $(P_3 - P_1) \times Q_1$
- C. $(P_3 - P_2) \times Q_2$
- D. $(P_4 - P_3) \times Q_2$

2001/CE/11/07



The above diagram shows the increase in supply of a good from S_1 to S_2 as a result of the provision of a per unit subsidy for the good by the government.

Suppliers' new total revenue excluding the subsidy _____ their old total revenue before the provision of the subsidy.

- A. is smaller than
- B. is equal to
- C. is larger than
- D. may be larger or smaller than

2004/CE/11/11

The following table shows the market demand and supply of a good.

Unit Price (\$)	Market quantity demanded (Units)	Market quantity supplied (Units)
10	70	130
9	90	120
8	110	110
7	130	100
6	150	90
5	170	80

If the government provides a per unit subsidy of \$3 to the suppliers,

- A. the new equilibrium price is \$5 per unit.
- B. the total amount of subsidy provided is \$390.
- C. the subsidy benefit enjoyed by the consumers is greater than that of the suppliers.
- D. the total expenditure of consumers will decrease.

2010/CE/11/09

The demand elasticity of Good X is equal to one. Which of the following is a correct description of Good X?

- A. An increase in its price will not affect the quantity demanded.
- B. An increase in the price of its substitute will not affect the quantity demanded.
- C. The imposition of a per unit sales tax on it will not affect consumers' expenditure on it.
- D. A per unit subsidy offered by the government will not affect the total revenue (including the subsidy) of the sellers.

SP/DSE/1/20

Suppose the government provides a per-unit subsidy to the producers of a good. This would lead to

- A. an increase in consumer surplus and a fall in producer surplus, so having an ambiguous effect on efficiency.
- B. an increase in producer surplus and a fall in consumer surplus, so having an ambiguous effect on efficiency.
- C. an improvement in efficiency because both sellers and buyers would benefit from the subsidy.
- D. a deadweight loss because the amount of subsidy provided by the government is greater than the sum of the increase in consumer and producer surpluses.

2014/DSE/1/16

Refer to the following demand and supply schedules of a good.

Price	\$1	\$2	\$3	\$4	\$5
Quantity demanded (units)	120	100	80	75	60
Quantity supplied (units)	60	75	80	100	120

According to the above information, we can conclude that

- A. the total sales revenue would be \$200 when the price is \$2.
- B. there would be a shortage of 25 units when the government imposes a price floor at \$4.
- C. when a per unit subsidy of \$2 was granted to the seller, the total revenue (including the subsidy) would increase by \$160.
- D. when a per unit subsidy of \$2 was granted to the seller, the equilibrium price would drop to \$1.

2015/DSE/1/10

Which of the following will result in a rise in the total revenue of chicken farms?

- A. The price of chicken feed falls.
- B. The government reduces the profits tax rate on chicken farms.
- C. The effective quota on the sale of chickens is increased.
- D. The government reduces the subsidy for the production of pork.

2015/DSE/1/12

The government provides a per-unit subsidy of \$10 on producing green products. The market price drops by \$6 as result. Which of the following statements about the green product market is/are correct?

- (1) The supply of green products is more elastic than their demand.
- (2) Consumers enjoy more subsidy benefits than producers.
- (3) The demand for green products increases.

- A. (2) only
- B. (1) and (2) only
- C. (1) and (3) only
- D. (1), (2) and (3)

2016/DSE/1/19

Refer to the following demand and supply schedules of a good.

Price (\$)	40	50	60	70	80	90
Quantity demanded (units)	14	12	10	8	6	4
Quantity supplied (units)	6	8	10	12	14	16

Which of the following statements is correct when the government provides a per unit subsidy of \$20 on the good?

- A. The total revenue including the subsidy is \$840.
- B. The total subsidy granted by the government is \$200.
- C. Within the range of the original and new market prices, the elasticity of demand is smaller than one.
- D. The change in total revenue of its complements is uncertain.

1994/CE/11/11

The demand for good X is perfectly inelastic. If the government offers a subsidy of \$4 for each unit of X produced, the equilibrium price of X will

- A. remain unchanged.
- B. decrease by \$4.
- C. decrease by less than \$4.
- D. decrease by more than \$4.

The following table shows the demand and supply schedules of a good.

Price (\$)	Quantity demanded (units)	Quantity supplied (units)
20	70	40
22	60	45
24	50	50
26	40	55
28	30	60

If the government provides a \$6 per-unit subsidy for the producers of the good, the total subsidy provided by the government will be _____ and the ratio of consumers' share to producers' share of the subsidy will be _____.

- A. \$300 1:1
 B. \$300 1:2
 C. \$360 1:1
 D. \$360 1:2

Short & Structured Questions

1991/CE/1/1(b)

In the fiscal year 90/91, the government greatly increased the tax on gasoline. With the aid of separate demand and supply diagrams, explain the effect on the equilibrium price and quantity of

- (i) gasoline, and (6 marks)
 (ii) new cars. (7 marks)

1992/CE/1/2(b)

Suppose US imposes an import tax on Hong Kong-made garments. With separate diagrams, explain the effects on the equilibrium price and quantity of

- (i) Hong Kong-made garments in the US markets, and (5 marks)
 (ii) US-made garments in the US market. (5 marks)

1993/CE/1/4(c)

Suppose a per unit tax is imposed on the TV sets sold in Hong Kong. This tax is collected from the sellers. Indicate on a supply-demand diagram the respective tax burdens of the consumers and the sellers. (5 marks)

2004/CE/1/9(c)

A first registration tax is imposed on cars and the tax is collected from car sellers. Suppose the total tax burden of car sellers is greater than that of the buyers.

- (i) State the condition that leads to this sharing of the tax burden. Illustrate the situation with a diagram.
 (ii) Using the same diagram, show car sellers' total sales revenue net of the tax. (8 marks)

2007/CE/1/9(c)

General sales tax has generated a lot of discussion.

Good X is subject to a per-unit sales tax.

- (i) With the aid of a diagram, explain under what condition consumers' total spending on Good X will decrease as a result of the introduction of the tax. (7 marks)
 (ii) Indicate in the diagram in (c)(i) the change in sellers' revenue (net of tax). (2 marks)

2008/CE/1/9(b)(ii)

The stock market of an economy is overheated. Many people withdraw money from their bank deposits to buy shares.

Two measures are suggested to cool down the overheated stock market.

- (1) the deposit interest rate of banks is raised.
 (2) the government imposes a tax on the capital gains from trading of shares.

With the aid of a diagram, explain the effect of the imposition of the capital gains tax on the total market value of shares in the economy. (7 marks)

2009/CE/11(c)(i)

In the fiscal year 2008-09, the government took some measures to reduce the tax burden on the public.

The duties on wine (including red wine) were waived in order to establish Hong Kong as a centre for wine trading and distribution businesses.

With the fact that drinking red wine has become more popular in Hong Kong and the fact that the duty on red wine has been waived, explain in what situation the price of red wine would increase. Illustrate your answer with the aid of a supply-demand diagram. (7 marks)

2014/DSE/11/9

Many countries have considered imposing 'soft drink tax' for health reasons. Suppose a country decides to impose a per unit tax on the sellers for every bottle of soft drink sold in the market.

- Under what condition will the soft drink buyers in the country bear a greater tax burden than the sellers? Illustrate your answer with a supply-demand diagram. (5 marks)
- Using the same diagram in (a), indicate the change in consumer surplus after the tax is imposed. (1 mark)

2015/DSE/11/11(d)

Tobacco duty is an indirect tax in Hong Kong. The Financial Secretary has increased the tobacco duty rate with the aim of discouraging smoking.

In addition to the rise in tobacco duty, the Customs has made more effort to prevent the illegal sale of duty-not-paid cigarettes and has cracked down several illegal sellers. Is it possible that the quantity transacted of duty-not-paid cigarettes would increase? With the aid of a diagram, explain your answer. (7 marks)

2016/DSE/11/10(c)

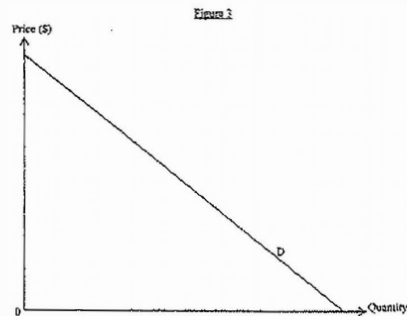
The European Union has imposed an anti-dumping tariff on the Chinese produced solar panels.

Under what condition will the producers bear a greater tariff burden than the buyers? Illustrate your answer with a supply-demand diagram. (7 marks)

2017/DSE/11/11

The government of Country X introduces a per-unit subsidy to the education services of private universities.

- Under what condition would the students enjoy a larger share of subsidy benefit than the private universities? Illustrate your answer with the aid of Figure 3. (7 marks)
- 'The subsidy causes inefficiency even though both students and universities benefit.' Defend the statement by comparing the marginal cost and marginal benefit in Figure 3. (3 marks)



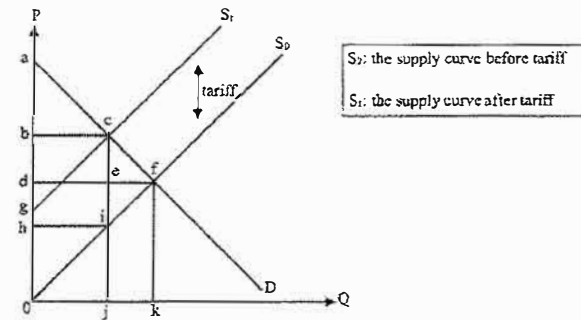
2020/DSE/11/10B

Donald Trump, the US president, once said that imposing tariffs would only increase the revenue of the US government and the US consumers did not have to pay more for the imported goods.

- With the aid of a supply-demand diagram, explain under **ONE** extreme condition that the consumers would bear **NO** tariff burden after the imposition of tariff. (4 marks)
(For simplicity, the tariff is assumed to be per-unit.)
 - Indicate the tariff revenue (i.e. sellers' burden) in the same diagram. (1 mark)

2020/DSE/11/10C

- Economists argue that tariff may harm both the consumers and producers.



With reference to the above supply-demand diagram, complete the table below. (3 marks)

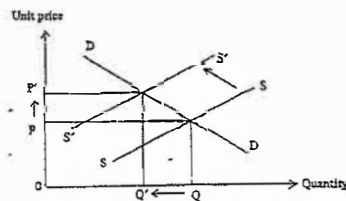
	Before tariff	After tariff
Consumers' surplus	Area <i>adf</i>	
Producers' surplus		

MARKING SCHEME

1990/CE/1/51 A	2003/CE/1/06 C (19%)	2010/CE/1/11 C (69%)	1995/CE/1/11 C	2010/CE/1/09 C (42%)
1991/CE/1/58 A	2003/CE/1/11 B (46%)	2010/CE/1/12 A (53%)	2002/CE/1/11 B (58%)	SP/DSE/1/20 D
1992/CE/1/25 A	2003/CE/1/12 D (25%)	2012/DSE/1/16 B (66%)	2004/CE/1/10 A (28%)	2014/DSE/1/16 C (48%)
1993/CE/1/29 B	2003/CE/1/42 A (32%)	2012/DSE/1/17 A (60%)	1990/CE/1/24 C	2015/DSE/1/10 D (32%)
1994/CE/1/08 B	2005/CE/1/09 B (68%)	2013/DSE/1/13 B (63%)	1990/CE/1/10 B	2015/DSE/1/12 B (48%)
1994/CE/1/09 C	2005/CE/1/11 B (47%)	2014/DSE/1/22 B (72%)	1996/CE/1/11 C	2016/DSE/1/19 A (43%)
1996/CE/1/07 A	2006/CE/1/11 B (39%)	2015/DSE/1/16 C (48%)	1999/CE/1/04 D	1994/CE/1/11 B
1998/CE/1/41 C	2006/CE/1/12 C (56%)	2017/DSE/1/16 B (64%)	2000/CE/1/08 B	2020/DSE/1/15 D
1999/CE/1/08 B	2008/CE/1/07 C (63%)	2018/DSE/1/22 A (74%)	2000/CE/1/11 D	
1999/CE/1/09 B	2008/CE/1/08 C (49%)	1991/CE/1/26 D	2001/CE/1/07 A	
2001/CE/1/08 C	2009/CE/1/13 B (47%)	1992/CE/1/26 B	2004/CE/1/11 B (34%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1991/CE/1/1(b)
(i) Gasoline



Candidates should indicate on the graph:

- leftward shift of S
- P ↑
- Q ↓

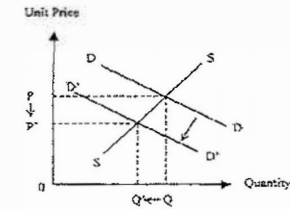
Elaboration:

The supply decreases (due to the gasoline tax). Therefore, the equilibrium price increases, and the equilibrium quantity decreases.

(1)
(1)
(1)

(1)
(1)
(1)

(ii) New cars



Candidates should indicate on the graph:

- leftward shift of D
- P ↓
- Q ↓

Elaboration:

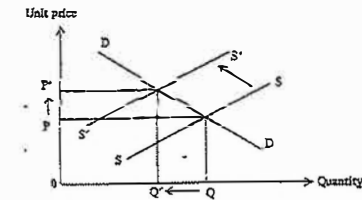
The demand for new cars decreases, because new cars and gasoline are complements. Therefore, the equilibrium price decreases, and the equilibrium quantity of new cars decreases.

(1)
(1)
(1)

(1)
(1)
(1)
(1)

1992/CE/1/2(b)

(i) Hong-Kong made garments



Candidates should indicate on the graph:

- leftward shift of S
- P ↑ & Q ↓

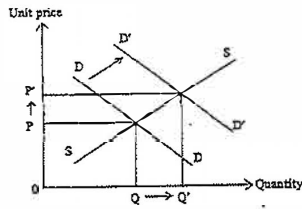
Elaboration:

The supply decreases (due to the import tax). Therefore, the equilibrium price increases, and the equilibrium quantity decreases.

(1)
(1)

(1)
(1)
(1)

(ii) US-made garments



Candidates should indicate on the graph:

- rightward shift of D
- $P \uparrow$ & $Q \uparrow$

(1)
(1)

Elaboration:

The demand increases (due to a rise in the price of substitutes). Therefore, the equilibrium price increases, and the equilibrium quantity increases.

(1)
(1)
(1)

1993/CE/1/4(c)

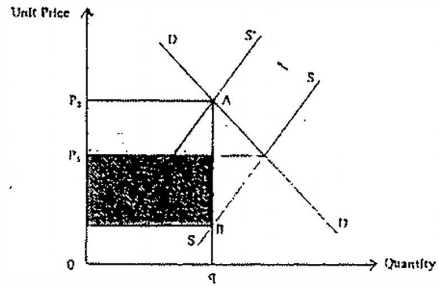


Diagram:

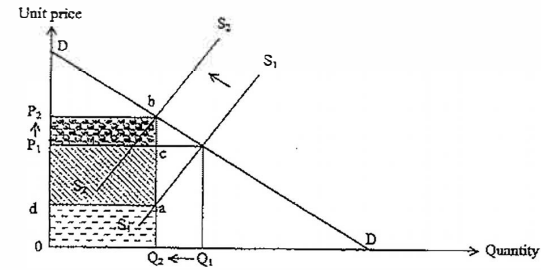
- AB = per unit tax
- correct shift of supply curve
- tax paid by consumers (white rectangle)
- tax paid by suppliers (black rectangle)

(1)
(2)
(2)

2004/CE/1/9(c)

(i) Condition: The elasticity of demand for cars is greater than the elasticity of supply.

(2)



Indicate in the diagram:

- supply curve shifts from S_1 to S_2
- sellers' tax burden = area acP_1d
- buyers' tax burden = area cbP_2P_1
- area $acP_1d >$ area cbP_2P_1

(1)
(1)
(1)
(2)

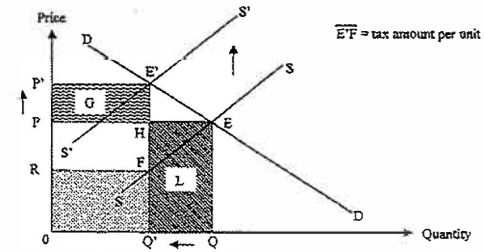
(ii) Indicate in the diagram:

- area Q_2ad is the net total sales revenue.

(1)

2007/CE/1/9(c)

(i)



Indicate in the diagram:

- upward shift of the supply curve
- a decrease in spending (= L) + increase in spending (= G)
- $G <$ L

(1)
(1)
(1)

Verbal elaboration:

There is a decrease in supply. The price increases and the quantity decreases. The demand is elastic, the percentage change in quantity demanded is larger than the percentage change in price.

(1)
(1)
(1)
(1)

(ii) Indicate in the diagram:

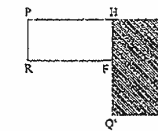
- sellers' revenue before tax (= area $OQEP$)
- the revenue net of tax (= area $OQ'FR$)

(1)
(1)

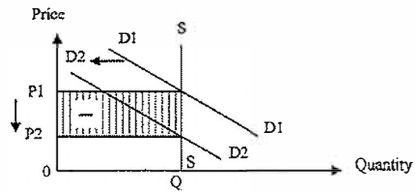
OR

- change in revenue = loss of area $Q'QEPRF$

(2)



2008/CE/19(b)(ii)



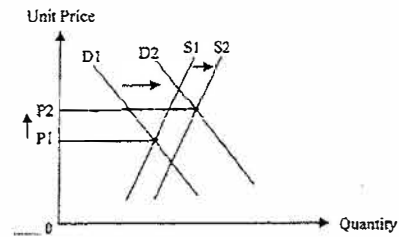
Indicate in the diagram:

- leftward shift of the demand curve (1)
- market price falls from P_1 to P_2 (1)
- market value decreases from $P_1 \times Q$ to $P_2 \times Q'$ (1)

Verbal elaboration:

The demand for stock market investments decreases, due to lower expected net capital gain. There is a fall in the price of shares, and the total market value [$P \times Q$] falls. (1)

2009/CE/11(c)(i)



Indicate in the diagram:

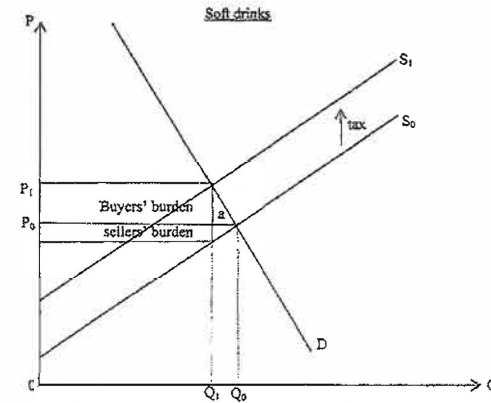
- demand curve shifts to the right (1)
- supply curve shifts to the right (1)
- the new equilibrium price > the original equilibrium price (1)

Verbal elaboration:

The demand for red wine increases (as it is more popular). The supply of red wine increases (due to the tax cut). The increase in demand is larger than the increase in supply. (1)

2014/DSE/11/9

(a) The condition is that the elasticity of demand for the good is smaller than the elasticity of supply. (1)



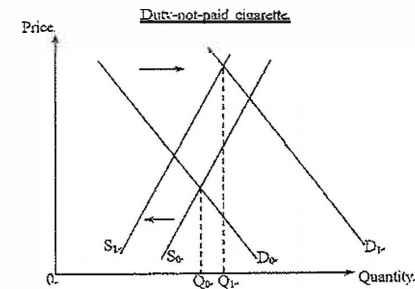
Indicate on the diagram:

- parallel upward shift of supply curve due to the per unit tax (1)
- price increases and quantity drops (1)
- correct positions of buyers' tax burden and sellers' tax burden (1)
- buyers' burden > sellers' burden (1)

(b) Indicate on the diagram:

- reduction in consumer surplus: buyers' burden + area a (1)

2015/DSE/11/11(d)



Indicate on the diagram:

- rightward shift of the demand curve (1)
- leftward shift of the supply curve (1)
- final equilibrium with a higher quantity transacted (1)

Verbal elaboration:

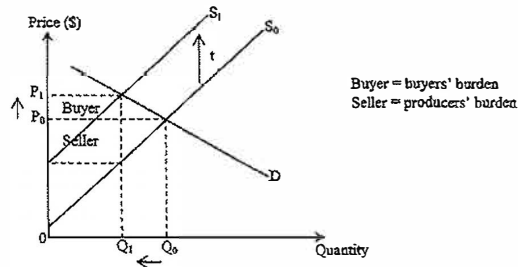
On the one hand, due to the HK Customs' crack-down effort, the supply of duty-not-paid cigarettes would drop. On the other hand, as duty-paid cigarettes and duty-not-paid cigarettes are substitutes, tobacco duty would increase the demand for duty-not-paid cigarettes. It is thus possible that the total quantity of duty-not-paid cigarettes sold would increase, if the increase in demand has a bigger effect on the quantity transacted than the decrease in supply. (1)

2016/DSE/II/10(c)

Condition: demand for solar panels is more elastic than its supply.

(2)

Chinese Solar panels sold in European Union



Indicate in the diagram:

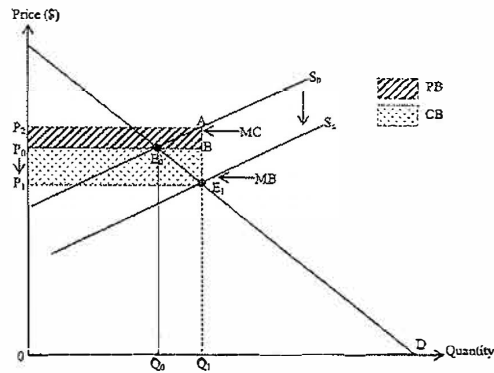
- upward shift of the supply curve
- P increases
- Q decreases
- correct position of buyers' burden and producers' burden
- buyers' burden < producers' burden

- (1)
- (1)
- (1)
- (1)
- (1)

2017/DSE/II/11

(a) The condition is that the elasticity of demand for education services is lower than the elasticity of supply.

(2)



Illustrate in the diagram:

- parallel downward shift of supply curve due to the per unit subsidy
- correct position of new price (P1)
- correct position of new quantity (Q1)
- correct position of producer benefit and consumer benefit
- consumer benefit > producer benefit

- (1)
- (1)
- (1)
- (1)
- (1)

(b) Illustrate in the diagram:

- correct position of marginal benefit
- correct position of marginal cost

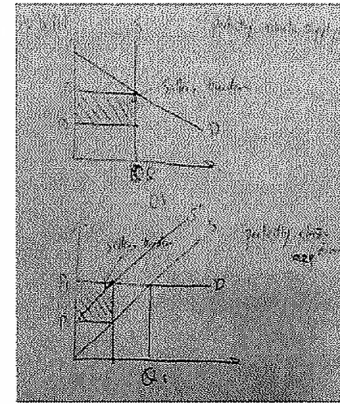
- (1)
- (1)

Verbal elaboration:

At Q1 marginal cost is larger than marginal benefit.

(1)

2020/DSE/II/10B



B) If the demand is perfectly elastic, Producer will bear all tax burden.

OR

If the supply is perfectly inelastic, Producer will bear all tax burden.

2020/DSE/II/10C

C) Consumer surplus after tariff = ahc

Producer surplus before tariff = d/c

Producer surplus after tariff = h/c

SECTION 9: ROLES OF GOVERNMENT

9.1 EXTERNALITIES

Multiple Choice Questions

1985/AL/1/02

A chemical company drops waste into a farmer's water supply, causing significant damage to the farmer. The farmer cannot legally ask for compensation from the chemical company. In view of this situation

- A. an output tax should be imposed on the chemical company because of the implied inefficiency.
- B. it is in the farmer's interest to pay the chemical company to decrease waste dumping.
- C. the law should be changed to allow the farmer to demand compensation from the chemical company.
- D. the chemical company should be allocated elsewhere.

1985/AL/1/23

A divergence between private cost and social cost means

- A. the market fails to maximize welfare.
- B. income distribution requires improvement.
- C. resources allocation requires improvement.
- D. the cost to an individual of an action differs from the cost to the society.

1986/AL/1/06

A divergence between private and social costs

- A. is inefficient and should be eliminated by government regulations.
- B. can be resolved by private contracting.
- C. means that income distribution is more unequal.
- D. (out of syllabus)

1986/AL/1/25

The smoke from a metal processing factory in Hong Kong pollutes a large government housing estate nearby, and the toxic nature of the smoke may threaten the lives of residents who are scheduled to move into the estate soon. Economic analysis tells us that

- A. the polluting factory must be relocated.
- B. the residents must not be allowed to move into the housing estate.
- C. life is invaluable and must be saved, therefore either the factory or the housing estate must be relocated.
- D. to maximize social gain there is not enough information to decide on the proper course of action.

1988/AL/1/17

A restaurant opens near a housing estate. The cooking smell annoys the residents nearby. Economic analysis indicates that

- A. the residents of the housing estate should be encouraged to sue the restaurant owner.
- B. resource allocation will be more efficient if the restaurant owner pays the residents to tolerate the smell.
- C. it is more beneficial to society if the government forbids the restaurant to operate near the housing estate.
- D. the mere presence of the annoying smell does not necessarily represent inefficient use of resources.

1990/AL/1/25

Suppose a factory pollutes the environment. If the right to pollute is well-defined and transferable,

- A. the level of pollution is subject to market contracting.
- B. pollution will be eliminated.
- C. the factory will necessarily increase its production.
- D. then, on efficiency grounds, the government should intervene when the right to pollute is not transacted.

1990/AL/1/30

A divergence between private and social costs is NOT wasteful if

- A. the majority of people benefit from the divergence.
- B. the cost of eliminating the divergence is greater than the cost of the divergence itself.
- C. people who suffer from the divergence choose not to complain to the government.
- D. the divergence is not expected to last for a long time.

1991/AL/1/01

A divergence between private and social costs

- A. occurs when one person's action inflicts damage on another person.
- B. cannot be resolved without government intervention.
- C. may be eliminated by market transactions if the action that causes the damage is a private property right.
- D. means inefficient allocation of resources.

1992/AL/1/22

Which of the following implies a divergence between private and social costs?

- A. A factory pollutes the neighbouring housing for workers, and this housing is owned by the factory.
- B. Increasing textile exports to the USA leads to higher clothing prices in Hong Kong.
- C. Mr. Smith plays the piano which his neighbour loves to hear, but he plays it so often that the marginal benefit of his music to the neighbour is exactly zero.
- D. None of the above.

1992/AL/1/23

Suppose the construction of a flyover causes the value of nearby properties to fall. To attain economic efficiency,

- A. the flyover builder should compensate the nearby property owners.
- B. the flyover builder should install a noise reduction device.
- C. the nearby building should be relocated.
- D. There is not enough information to answer the question.

1992/AL/1/24

If private ownership of a forest is abolished, and the forest is subject to common exploitation,

- A. the rate of depletion will remain unchanged.
- B. the trees will become a public good.
- C. the private cost of cutting trees will differ from the social cost.
- D. the trees will become a free good because they no longer have a price.

1993/AL/I/08

In its production process, a chemical factory upstream pollutes a river nearby without considering the damages inflicted upon a fish farmer downstream. Under zero cost of transaction,

- A. the chemical factory will pollute more if it has the private property rights to use the river.
- B. there will be no water pollution if the fish farmer has the private property rights to use the river.
- C. there will be no water pollution if the fish farmer purchases the ownership of the chemical factory.
- D. water pollution will be reduced if private property rights over the use of the river are established, regardless of who owns these rights.

1994/AL/I/08

If all property rights are well defined and transaction costs are zero,

- A. there will be no pollution.
- B. the marginal social cost of pollution will equal the marginal social benefit of pollution.
- C. the level of pollution will be minimized.
- D. the existing level of pollution will remain unchanged.

1994/AL/I/15

A divergence between private and social costs results from

- A. market failure.
- B. property rights not being clearly defined.
- C. too little government intervention.
- D. the inability to distinguish private goods from public goods.

1995/AL/I/23

The construction of a new cross harbour tunnel in Western District has caused the value of nearby properties to rise. Therefore, to increase efficiency,

- A. nearby property owners should share the capital gain with the tunnel company.
- B. the tunnel company should ask nearby property owners to share the tunnel construction costs.
- C. the government should encourage property developers to build more new flats in that area.
- D. None of the above.

1996/AL/I/21

Given that people have well-defined rights to enjoy fresh air, which of the following justifies the government prohibiting smoking in public areas?

- A. Smokers inflict harm on non-smokers.
- B. The cost of contracting between smokers and non-smokers is prohibitive.
- C. The rights of non-smokers must be protected at all costs.
- D. It is impossible to find a tax schedule to correct the external effects of smoke pollution.

1997/AL/I/27

A pianist plays the piano. His neighbour enjoys the music but the pianist receives no payment from the neighbour. A divergence between private and social costs/benefits occurs in the following situations EXCEPT:

- A. The more music the pianist plays, the more the neighbour enjoys the music.
- B. The more music the pianist plays, the less the neighbour enjoys the music.
- C. The neighbour feels that the last minute of the music has a zero value.
- D. Although the neighbour loves the music, he feels that it would be better if the pianist plays a little less.

1997/AL/I/28

In the United States, as in some other developed countries, one who builds a highrise blocking the view of others may be subject to public hearings, and through these hearings the right to build the highrise may be denied. In Hong Kong, however, so long as the building code is met, every builder has the right to block the view of the residents nearby. Which of the following is true?

- A. A divergence between private and social costs is more likely to occur in Hong Kong.
- B. A divergence between private and social costs is less likely to occur in Hong Kong.
- C. The transaction costs involved in the elimination of the divergence between private and social costs is higher in Hong Kong.
- D. None of the above.

1998/AL/I/13

A factory dumps waste into a farmer's water supply, causing significant damage to the farmer. With prohibitive transaction costs in making contracts,

- A. the situation may be efficient and no government intervention is needed.
- B. the situation is inefficient and the factory should not be allowed to produce.
- C. the farmer should have the right to demand compensation from the factory.
- D. the situation is inefficient and government regulation is the only way to improve efficiency.

1998/AL/I/19

A divergence between private cost and social cost

- A. will not exist if transaction costs are zero.
- B. cannot be resolved without private contracting.
- C. implies that income distribution is unequal.
- D. means that the market is inefficient and requires government regulation.

1999/AL/I/19

The new airport in Hong Kong relieves the people living under the old flight path from noise pollution, but causes noise pollution to those under the new flight path. After the opening of the new airport,

- A. the value of properties under the new flight path will fall if the noise pollution is fully anticipated.
- B. the value of properties under the new flight path will rise if the noise pollution is fully anticipated.
- C. the respective property values will change if changes in the levels of noise pollution are not correctly anticipated.
- D. the respective property values will not change under any circumstances.

1999/AL/I/27

Which of the following implies a divergence between private and social costs?

- A. Male students contribute money towards buying perfumes for female students.
- B. A student accidentally pours coffee on a professor's jacket and says sorry.
- C. A husband complains about his wife all the time but refuses to get a divorce.
- D. A piano player who never receives any payment for his music from his neighbour always plays the piano that the marginal value of his piano play to his neighbour is zero.

2000/AL/1/19

Newspaper and magazine publishers often increase their sales and incomes by reporting personal information about famous movie stars who usually do not receive any financial return from the publishers. However, these movie stars often benefit from these reports which serve as a kind of publicity for them. Which of the following statements is correct regarding this situation?

- A. There must be a divergence between private and social costs.
- B. To attain economic efficiency, the government should force the party who benefits more from these reports to compensate the other party.
- C. The marginal benefits of these reports to the two parties must be the same since neither party pays the other.
- D. The costs of making and enforcing contracts are prohibitively high.

2000/AL/1/20

When a pianist plays the piano up to a point where the marginal value of the unpaid music to his/her neighbour is zero,

- A. private marginal benefit diverges from social marginal benefit.
- B. the total gain to the pianist and his neighbour is maximized.
- C. the property rights to the music has to be defined for economic efficiency.
- D. the time spent on playing the piano is indeterminate.

2003/AL/1/27

The construction of a new airport generates unpleasant noise for nearby residents, and yet the value of nearby properties increases as a result of the new airport. Which of the following is correct?

- A. There may be no divergence between private and social costs.
- B. The existence of both noise damage and increases in property value calls for a tax on the one hand and a subsidy on the other.
- C. There must be a divergence between private and social costs.
- D. There is definitely no divergence between private and social costs.

2005/AL/1/29

The introduction of a new airport near a city as a rule creates noise and pollution that affect the market value of the property nearby. Also as a rule, the market value of the nearby property rises because of a substantial increase in business activities. Which of the following is correct?

- A. There is a divergence between private and social costs, and taxes imposed on airplane take-offs and landings will reduce this divergence.
- B. There is a divergence between private and social costs, and subsidies awarded to airplane take-offs and landings will reduce this divergence.
- C. So long as the market value of nearby property continues to rise with more airplanes using the airport, hence more noise and pollution, the divergence between private and social costs declines.
- D. There is no divergence between private and social costs as long as the market value of nearby property rises.

2006/AL/1/29

Two adjacent houses have trees extending into each other's garden area. Both owners clear the fallen leaves in their own lawns without saying anything to one another. Which of the following statements is correct?

- A. There may be no divergence between private and social costs.
- B. The marginal damage of these trees to each party must be the same since no compensation is given.
- C. There must be a divergence between private and social costs.
- D. The cost of negotiation between the two parties is irrelevant.

2006/AL/1/30

A divergence between private and social costs

- A. may not exist even in the absence of private property rights.
- B. will never exist with private property rights.
- C. will never exist with government intervention.
- D. may still exist even if transaction costs are zero.

2007/AL/1/30

Building a highway creates a nuisance for the environment nearby. Land prices near the highway often increase after the announcement of the route. This implies that

- A. The government has selected the location of the highway accurately.
- B. The benefits derived from the highway outweigh the nuisance created.
- C. Pollution is inevitable when the economy develops.
- D. There is necessarily a divergence between private and social costs.

2008/AL/1/28

In many countries, residents in apartments are not allowed to keep dogs, but residents in garden houses are allowed to do so. Which of the following statements is correct?

- A. The nuisance of dogs barking is transacted in the market.
- B. The divergence between private and social costs increases whenever dogs are allowed to be kept.
- C. The divergence between private and social costs decreases whenever dogs are not allowed to be kept.
- D. None of the above.

2008/AL/1/30

The strict enforcement of a no-smoking law

- A. will eliminate the divergence between private and social costs with respect to the effects generated by smoking in public.
- B. will reduce the divergence between private and social costs of public smoking.
- C. may increase the divergence between private and social costs of public smoking.
- D. is more efficient than the absence of this law because the poll shows that the majority of people support its passing.

2009/AL/1/28

A divergence between private and social costs

- A. may exist even if transaction cost is zero.
- B. may exist even if all resources are allocated by using market prices.
- C. implies the efficiency condition is violated.
- D. implies the absence of private property rights.

2010/AL/1/28

In 1920, A.C. Pigou of Cambridge advanced the argument that, with a superior road and an inferior road, car drivers flock to use the superior road and cause traffic congestion.

- A. There is a divergence between private and social costs in this situation.
- B. A tax imposed by the government on the use of the superior road will reduce the divergence between private and social costs.
- C. If the roads are privately owned, a higher toll will be charged for the use of the superior road.
- D. All of the above

2012/AL/1/28

A.C. Pigou observed that the sparks of passing trains harmed the crops of farmland near a railway. However, the noise of the trains also scared away the birds feeding on the crops and because of this the price of the farmland rose. Which of the following statements is correct?

- A. A tax imposed on the use of the railway would reduce the divergence between private and social costs.
- B. A subsidy granted to the farmers would reduce the divergence between private and social costs.
- C. There is no divergence between private and social costs when the price of nearby farmland reached a maximum.
- D. So long as the market value of nearby farmland continued to rise with more trains passing, there was no divergence between private and social costs.

SP/DSE/1/18

In which of the following situations will there be NO divergence between private and social costs / benefits?

- A. A chemical factory upstream pollutes a river without considering the damage inflicted upon fish farmers downstream.
- B. A diner smokes in a restaurant without considering the effects on people nearby.
- C. A farmer raises some sheep which damage the crops of nearby farmland owned by the farmer.
- D. A pianist plays the piano at home and receives no payment from his neighbour who enjoys the music.

2013/DSE/1/18

Suppose the market equilibrium output level is greater than the efficient output level. It implies that

- A. total social surplus will increase if output is reduced towards the efficient output level.
- B. at the equilibrium output level, marginal benefit is greater than marginal cost.
- C. the sum of consumer surplus and producer surplus is maximized as the market output level satisfies the equilibrium condition.
- D. government intervention is necessary to reduce output as there is over-production.

2013/DSE/1/20

A beekeeper keeps the bees for their honey. The bee-keeping benefits the farmers in the orchard nearby because the bees help pollinate the fruits in the orchard. Which of the following statements about this case is correct?

- A. There will be a divergence between private and social benefits and the honey is over-produced.
- B. The beekeeper should be subsidized by the government to improve economic efficiency.
- C. If the value of honey is higher than the value of fruits, there is no need for the government to intervene to correct the externality.
- D. There will be no divergence between private and social benefits if the orchard nearby is owned by the beekeeper.

2014/DSE/1/18

Korean pop singers are becoming more popular in Hong Kong. To these singers, which of the following are their private benefits?

- (1) the rise in royalties from the sales of their albums
- (2) the rise in sales revenue of Korean-designed fashion
- (3) the rise in the number of tourists visiting Korea
- (4) the rise in revenue shared from their concerts held in Hong Kong

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2014/DSE/1/19

Which of the following are ways to lessen the problem of divergence between private and social costs in Hong Kong?

- (1) to collect a sewage charge
- (2) to collect a university tuition fee
- (3) to collect a charge on electricity
- (4) to collect a levy on plastic bags

- A. (1) and (3) only
- B. (1) and (4) only
- C. (2) and (3) only
- D. (2) and (4) only

2015/DSE/1/17

Which of the following is an example of the divergence between private and social benefits?

- A. A security guard watches live concerts when he is working in a concert hall.
- B. A tourist enjoys the music performed by a singer on the street and he does not pay for that.
- C. A resident living next to a karaoke lounge cannot fall asleep because of the noise.
- D. After the removal of the airport, the market value of the residential flats in that region increases.

2018/DSE/1/23

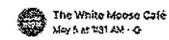
Recently, unmanned aircraft systems have become very popular but using those aircrafts in urban areas has caused noise and safety concerns. The Civil Aviation Department is considering regulating the manufacture, import and sale of unmanned aircraft systems.



It is an example of divergence between private and social _____ and the _____ solution is being considered to reduce the divergence.

- A. costs market
- B. costs government
- C. benefits market
- D. benefits government

2020/DSE/1/21



The White Moose Café
May 5 at 12:11 AM · Q

***SCREAMING CHILD TAX**

For the benefit of both staff and customers alike, we have taken the decision to impose a tax on children who scream. If we notice that your child is screaming, an automatic 15% surcharge will be applied to your bill. For every further screaming child you have in your group, an additional 10% will be added.

We trust you understand our position.

👍👎 62%

1.4K Comments 533 Shares

With reference to the above information, which of the following statements is correct?

- A. Children screaming in the café results in negative externality and all cafés should introduce similar policy to restore efficiency.
- B. The extra charge on screaming children increases the marginal private cost of the groups with screaming children.
- C. The 'screaming child tax' is a government solution to the divergence between private and social costs.
- D. The 'screaming child tax' is a kind of discrimination and should not be imposed.

Short & Structured Questions

1985/AL/1/7

'Education benefits society, therefore if the government subsidizes education, the society will benefit more.'

- (a) Critically evaluate this statement. (It is essential to remember that the production of goods also benefits society.)
- (b) It is sometimes argued that if more people are educated, then in daily social contacts the uneducated may learn from the educated free of charge. For the sake of argument, defend government subsidization under this condition.

1986/AL/1/10

The following data show that a factory, in the process of production, pollutes and inflicts damage on the neighbouring properties.

Level of Output	Total Revenue \$	Total Private Cost \$	Total Damage to Property Owners \$
100	180	130	34
200	360	270	66
300	540	420	96
400	720	580	124
500	900	750	150
600	1 080	930	174
700	1 260	1 130	196
800	1 440	1 440	216

- (a) If the factory owner seeks to maximize his own gain and ignores the damage inflicted on his neighbours, what will be the level of output? Explain.
- (b) Assume all transaction costs are zero. If the factory owner has the right to inflict damage on his neighbours, what will be the level of output? Explain.
- (c) Again assume all transaction costs are zero. If the property owners in the neighbourhood have the right to restrain the factory from polluting, what will be the level of output? Explain.

1988/AL/1/7(a)

The Hong Kong Cross-Habour Tunnel is often congested and takes time to cross. Time is valuable. In principle, it is possible to raise the toll to reduce or even eliminate the traffic congestion.

If congestion occurs, explain why a tunnel user will generate a divergence between private and social costs, and why an increase in toll charges will reduce or eliminate this divergence.

2005/AL/1/7(a)

The Chinese government subsidizes the training of promising athletes. Some of the athletes have become sports stars, such as winners of Olympic gold medals.

On what economic ground could this subsidization in training athletes be justified?

2007/AL/1/7(a)

The Hong Kong government has imposed a strict and severe no-smoking law, prohibiting smoking in most public areas. Milton Friedman said that each and every individual should have the freedom to harm himself, including committing suicide; however, in doing so he may inflict damage on others and create a social cost problem. One who smokes cigarettes enjoys smoking, but may inflict damage on the health of others nearby.

How would you assess the social gains and costs of our new no-smoking law? Can anyone be certain that the social gains are greater than the social costs?

2008/AL/1/7(b)

Large shopping centers everywhere tend to charge much lower rents for anchor stores, or stores considered as big draws attracting visitors or shoppers to the centers, than ordinary retailers.

Fixed rents per square foot charged to anchor stores are often only small fractions of the fixed rents charged to smaller shops not noted for their drawing powers.

The anchor stores are drawing shoppers, which benefits the non-anchor stores. In what sense is there a divergence between private and social costs? In what sense does this divergence not exist?

2015/DSE/1/12(d)

Research shows that the "Individual Visit Scheme" of mainland tourists has brought economic benefits to Hong Kong. However, more and more Hong Kong residents have called on the government to reduce the number of mainland tourists to Hong Kong under the Scheme.

Some residents complained that the large number of tourists overloaded the public transportation system, resulting in a large increase in travel time for all passengers. Explain, in terms of externality, why inefficiency may exist when the transportation system is overcrowded. (4 marks)

2016/DSE/1/4

These years many customers like to take photos of the food they have in restaurants and share them on social media. However, some high-end restaurants do not allow their customers to take photos. Explain how the "photo-taking-and-sharing" behaviour of the customers may involve externality. (3 marks)

2017/DSE/1/4

Pokemon Go is a popular game for which gamers need to move around different places with their smartphones to catch the cyber-pok. Its developer has placed hotspots in different areas where many gamers are attracted to gather. Some restaurants in remote areas found their business sharply increased as they are located near these hotspots.

(a) Based on the above information, explain, in terms of externality, how the placing of the hotspots may result in inefficiency. (3 marks)

(b) How may such a problem of inefficiency be relieved by market? (2 marks)

2019/DSE/1/4

Getting vaccinated is an effective way to prevent infection and protect oneself from flu viruses. Using the concept of externality, explain why the government provision of subsidy on Seasonal Influenza Vaccination (接種季節性流感疫苗) may improve economic efficiency. (4 marks)

MARKING SCHEME

1985/AL/1/02 B	1992/AL/1/23 D	1998/AL/1/15 A	2006/AL/1/30 A (44%)	2013/DSE/1/20 D (69%)
1985/AL/1/23 D	1992/AL/1/24 C	1998/AL/1/19 A	2007/AL/1/30 B (63%)	2014/DSE/1/18 B (93%)
1986/AL/1/06 B	1993/AL/1/08 D	1999/AL/1/19 C	2008/AL/1/28 A (38%)	2014/DSE/1/19 B (81%)
1986/AL/1/25 D	1994/AL/1/08 B	1999/AL/1/27 B	2008/AL/1/30 C (45%)	2015/DSE/1/17 B (45%)
1988/AL/1/17 D	1994/AL/1/15 B	2000/AL/1/19 D	2009/AL/1/28 B (47%)	2018/DSE/1/23 B (73%)
1990/AL/1/25 A	1995/AL/1/23 D	2000/AL/1/20 B	2010/AL/1/28 D (73%)	2020/DSE/1/21 B
1990/AL/1/30 B	1996/AL/1/21 B	2003/AL/1/27 A	2012/AL/1/28 C (23%)	
1991/AL/1/01 C	1997/AL/1/27 C	2005/AL/1/29 C (37%)	SP/DSE/1/18 C	
1992/AL/1/22 D	1997/AL/1/28 B	2006/AL/1/29 A (71%)	2013/DSE/1/18 A (52%)	

Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.

1985/AL/1/7

- (a) More of all goods, including housing, cars and education, is beneficial, but we cannot have more of all goods. If the government subsidizes education, more of it will be produced and consumed. Whether society benefits depends upon the value of the extra education (because of the subsidy) compared to the value of the other goods which the society would have to sacrifice in order to have the extra education (i.e. marginal benefit versus marginal cost). In general, because of the subsidy, the marginal cost of education to society would exceed its marginal benefit.
- (b) Candidates are expected to know that this part of the question concerns the divergence between private and social benefits. If the educated cannot charge a fee for the benefit they generate to the uneducated, then from the society's point of view they will tend to under-invest in education, in the sense that the marginal cost of more education to them will fall short of the marginal social benefit. Subsidizing education by the government will therefore lead to marginal gain to society.

1986/AL/1/10

Level of Output	Marginal Revenue (MR)	Marginal Private Cost (MPC)	Marginal Damage	Marginal Social Cost (MSC)
100	180	150	34	164
200	180	140	32	172
300	180	150	30	180
400	180	160	28	188
500	180	170	26	196
600	180	180	24	204
700	180	200	22	222
800	180	310	20	330

- (a) 600 units, where MR (\$180) = MPC (\$180) and the private gain is maximized (\$150).
- (b) 300 units, where social surplus is maximized (\$24). If the factory owner wants to increase output to, say, 400 units, the marginal profit from this increment is \$20, but the marginal damage to the neighbours is \$28. The neighbours therefore will pay the factory owner \$20 to cut output back to 300 units.
- (c) Again 300 units, where the social surplus is maximum (\$24). If the neighbours seek to reduce the factory's output to, say, 200 units, the marginal reduction in damage is \$30. Since the marginal profit (from the 3rd 100 units) is \$30, the factory owner will be able to pay and compensate neighbours to take the marginal damage.

1988/AL/1/7(a)

If congestion occurs, each user will slow down the speed of others, thereby imposing time cost upon one another without compensating them for this cost. The social time cost generated by one driver is the time cost of himself as well as the time cost he imposes upon all other drivers, whereas the private cost is the time cost to this one driver only.

A toll will reduce the traffic congestion, thereby reducing the likelihood of one user imposing time cost upon others.

2005/AL/1/7(a)

The presence of external effects, such as national pride or glory, may yield values to citizens at large, as most if not all Chinese in some measure enjoy a greater number of gold medals won in the Olympic Games. It would be highly difficult to collect payments for this type of external beneficial effects from all those enjoying the results of the training. (Transaction costs may be mentioned here.) Does national pride worth something to the citizens? Of course. But since payments are not enforced there is no way we can assess actually how much the citizens would be willing to pay.

2007/AL/1/7(a)

Social gains: Non-smokers' exposure to secondhand smoke is harmful to their health, and they are not compensated by the smokers who are responsible for such a negative externality. A ban on smoking can eliminate the existence of this negative externality.

Social costs: Smoking generates marginal benefit (MB) to smokers which exceeds its marginal social cost (MSC) at some levels. To maximize total social surplus (smokers' consumer surplus and tobacco companies' producer surplus), the 'efficient level of smoking' should be that smokers are allowed to smoke until their MB equals MSC. A ban on smoking will lead to under-production and a deadweight loss.

Society will gain from a ban on smoking only if such social gains are larger than the social costs.

It is virtually impossible to show whether the social gains are greater or smaller than the social costs in this case, because there is no guideline to properly estimate these gains and costs. When people are not asked or not required to pay, as they do in the market, any such estimate is not reliable.

2008/AL/1/7(b)

There is a divergence between private and social costs in the sense that the anchor stores generate spillover benefits to the smaller shops.

There is no divergence between these spillovers are all captured by the owners of the shopping centers, and because the anchor stores are capturing their own beneficial spillovers by paying lower rents. On the other hand, the smaller shops, which pay higher rents, are actually buying the spillovers beneficial to them.

2015/DSE/1/12(d)

Negative externality / divergence between private and social costs. (1)
When the public transportation system is overcrowded (i.e., at full capacity), any additional passenger using the system would increase the time cost for other passengers without having to compensate them for this extra cost (implying a divergence between private and social costs). As marginal social cost is now higher than marginal social benefit, the number of passengers using the system would exceed its efficient level. (3)

2016/DSE/1/4

Taking photos may disturb other people in the restaurants; sharing the photos in the social media may disclose the design of dishes. Both possibilities may have an undesirable effect on the revenue/profit of the restaurants, but such effects are not compensated (financially or otherwise) by the photo-takers. Such photo-taking and sharing behaviour may thus involve negative externality (external cost is involved). (3)

OR

Taking photos and sharing them in social media may have a promotion effect, attracting more customers-bringing higher revenue/profit to the restaurant, but the photo takers do not receive compensation for such benefits. Such photo-taking and sharing behaviour may thus involve positive externality (external benefit is involved). (3)

2017/DSE/1/4

(a) Positive externality. Restaurants in remote areas enjoy benefits from increased business due to the game developer's choice of hotspots locations without paying the developer. So external benefit exists and marginal social benefit is greater than marginal social cost. The number of existing hotspots near the restaurants is lower than that required by the efficiency level. (3)

(b) The restaurants may pay the game developer to increase the hotspots nearby. (2)

OR

The game developer may charge the restaurants for placing more hotspots near them. (2)

2019/DSE/1/4

Getting vaccinated protects oneself as well as lowering the chance of others being infected by flu. Since the person receiving vaccination is not compensated by others (whose chances of being infected are reduced), there exists external benefit, with marginal social benefit exceeding marginal social cost. This implies that the number of people getting vaccinated is below the efficient level. Subsidy can increase the quantity of vaccination towards the efficient level and thus narrow the gap between marginal social benefit and marginal social cost. (4)

9.2 EQUITY

(Note: The concept of equity was not included in the AL syllabus. The only relevant topic is about wage determination in the factor market.)

Multiple Choice Questions

1985/AL/1/28

Which of the following groups would most likely be harmed by a minimum wage law?

- A. teenagers with low productivities.
- B. salesmen who are paid by commission.
- C. waiters who are paid mainly by tips.
- D. technicians skilled in specialized techniques.

1991/AL/1/12

Workers in Hong Kong earn higher wages than those in the Philippines because

- A. there is a smaller labour supply in Hong Kong.
- B. the labour unions in Hong Kong are stronger.
- C. the workers in Hong Kong are more productive than those in the Philippines.
- D. the living standard in Hong Kong is higher.

1991/AL/1/24

God may have started out to create all men equal, but our parents intervened. Natural differences in abilities, attributes and tastes go far to explain wage differences. Economics tells us that

- A. the government should therefore set things right, and a socialist state is therefore preferable.
- B. the best condition is from whom according to ability and to whom according to needs.
- C. with equal education, people will have equal ability.
- D. with private property rights, the more productive your labour and the greater the demand for your services relative to its supply, the higher your wage rate.

1993/AL/1/26

The more human capital an individual worker brings to the labour market,

- A. the higher will be his marginal product.
- B. the easier it will be for him to find work.
- C. the more difficult it will be for him to find work.
- D. the more hours of labour he will be willing to supply.

1993/AL/1/30

An employer observes that when one employee is sick (and does not come to work), the value of output falls by \$500 per day. If two workers are sick, the value of output falls by \$1 200 and when three workers are sick the value of output falls by \$2 100. Suppose the wage rate is \$750 per man-day, the employer should

- A. keep the same number of workers.
- B. fire one worker.
- C. fire two workers.
- D. fire three workers.

1996/AL/1/03

In a competitive labour market, two industries require the same type of labour. Suppose the marginal productivity of labour in Industry A is higher than that in Industry B. In the absence of transaction costs, which of the following statements is correct?

- A. If labourers are switched from Industry B to Industry A, then the value of the total output of the industries will increase.
- B. Employers in Industry A will lay off some workers who will then be employed in Industry B.
- C. The labour demand curve for industry A will shift upward and that for industry B will shift downward.
- D. The labour demand curve for Industry A will shift downward and that for Industry B will shift upward.

1998/AL/1/04

In a competitive market, the observed wage rates of men are generally higher than those of women. This implies

- A. more men will be employed.
- B. more women will be employed.
- C. the marginal productivity of men is generally higher than that of women.
- D. None of the above.

1999/AL/1/26

In a competitive labour market, the wage rate received by a worker depends on

- A. his marginal productivity.
- B. the alternative offers he receives.
- C. the market demand for the product he produces.
- D. All of the above.

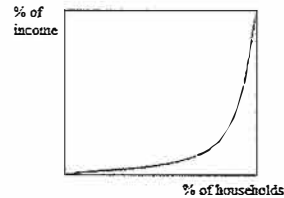
2007/AL/1/17

A researcher reported that people with good looks receive an income about 5% higher than average workers, other abilities adjusted. This implies

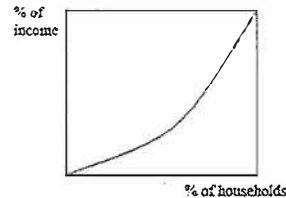
- A. discrimination.
- B. good looks are a capital asset.
- C. it pays to dress nicely.
- D. All of the above.

SP/DSE/1/19

Study the following Lorenz curves of two economies.



Lorenz curve of Country A



Lorenz curve of Country B

From the above diagrams, we can conclude that

- A. the income distribution of Country A is more even than that of Country B.
- B. the income distribution of Country B is more even than that of Country A.
- C. the high-income group in Country A earns a higher income than that in Country B.
- D. the high-income group in Country B earns a higher income than that in Country A.

PP/DSE/1/18

The following table shows the Gini coefficient of Economy A from Year 1 to Year 4.

Year	Gini coefficient
1	0.534
2	0.563
3	0.609
4	0.614

Based on the above information, which of the following statements is/are correct?

- (1) The income of high-income households increases while the income of low-income households decreases.
- (2) The income distribution becomes more uneven.
- (3) The general living standard declines.

- A. (1) only
- B. (2) only
- C. (3) only
- D. (1), (2) and (3)

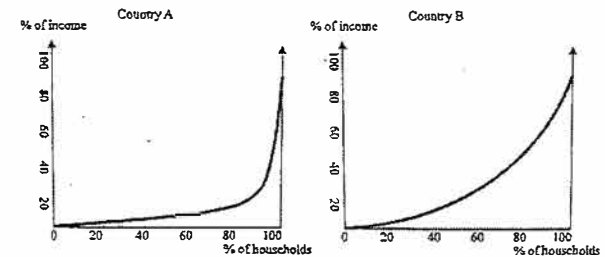
PP/DSE/1/19

Which of the following is the most likely effect of an effective minimum wage law?

- A. Income distribution will become more even.
- B. Total wage earnings of workers will rise.
- C. The employed population will increase.
- D. Non-price competition will emerge.

2012/DSE/1/20

The following diagrams show the Lorenz curves of Country A and Country B:



According to the above two diagrams,

- A. Country B has a higher national income than Country A.
- B. the low income group of Country B has a higher income than that of Country A.
- C. Country A has a more even distribution of income than Country B.
- D. Country A has a larger Gini coefficient than Country B.

2012/DSE/1/21

Which of the following are possible causes of income inequality among individuals?

- (1) difference in race
- (2) difference in capital ownership
- (3) difference in health

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

2014/DSE/1/20

Which of the following policies can reduce the Gini coefficient based on post-tax post-social transfer monthly household income in Hong Kong?

- A. to raise the standard tax rate on salaries tax
- B. to reduce the marginal tax rate on salaries tax
- C. to reduce the amount of Comprehensive Social Security Assistance Schemes (綜合社會保障援助計劃)
- D. to grant an equal sum of money to the Mandatory Provident Fund accounts of every employee

2015/DSE/1/21

Suppose the post-tax Gini coefficient of an economy is larger than its pre-tax Gini coefficient. This implies that

- A. The government has increased the amount of transfer to the poor.
- B. The tax system of the economy is likely to be regressive.
- C. The problem of income inequality is worse than that in the previous year.
- D. The government should reform the tax system.

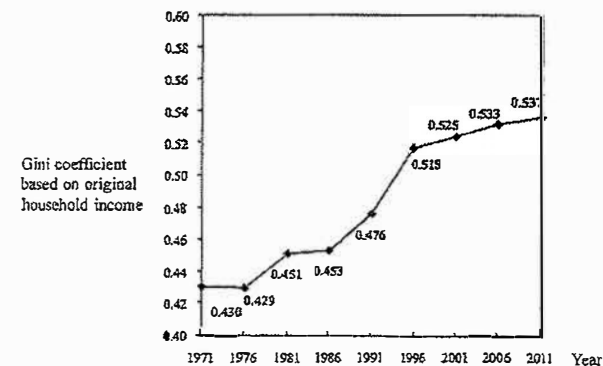
2017/DSE/1/20

Li Ka Shing Foundation gave HK\$5 000 to each 2017 HKDSE candidate living in those remote districts with lower average household income. Which of the following statements about this unconditional gift is correct?

- A. It reduces the income inequality as a larger portion of the receivers of the gift are from lower income group.
- B. It increases the income inequality as it is unfair to the candidates living in the non-remote districts.
- C. As the money is given to all candidates living in those remote districts, income distribution remains unchanged.
- D. It helps equalising opportunities as those candidates will study harder to improve their exam results.

2017/DSE/1/21

The following diagram shows the Gini coefficient of Hong Kong based on original household income.



Based on the above diagram, we can conclude that

- A. the income level of Hong Kong people increased.
- B. income for high income household increased while income for low income household decreased.
- C. the welfare policy failed to reduce the income inequality.
- D. income gap had been widening.

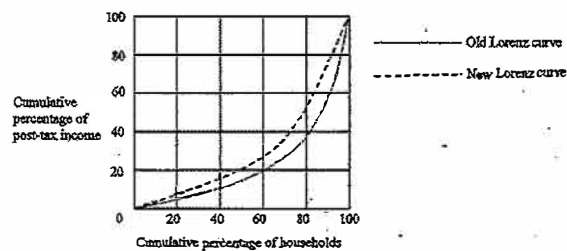
2017/DSE/1/22

The Work Incentive Transport Subsidy Scheme helps low-income earners reduce their cost of traveling to and from work and encourages them to get a job. Workers meeting certain criteria, such as monthly income and asset limits, are eligible to get the subsidy. Which of the following would likely occur after the implementation of this scheme?

- (1) Labour supply would increase.
- (2) Labour productivity would increase.
- (3) Geographical mobility of labour would increase.
- (4) Income inequality would decrease.

- A. (1) and (2) only
- B. (3) and (4) only
- C. (1), (3) and (4) only
- D. (2), (3) and (4) only

2019/DSE/1/19



Which of the following policies would result in the above change in the Lorenz curve in Hong Kong?

- A. lowering the profits tax rates
- B. reducing the salaries tax allowance
- C. increasing the progressivity of the salaries tax
- D. raising the air passenger departure tax

2020/DSE/1/13

In recent years, the rise in demand for private cars in China has attracted Volkswagen, a German car manufacturer, to set up car manufacturing factories in China.

The above case illustrates the _____ function of price because _____.

- A. rationing private cars are sold to the highest-valued users in China
- B. rationing fewer buyers are willing to buy private cars in Germany
- C. allocative the supply of private cars falls in Germany
- D. allocative more resources are allocated to the production of private cars in China

2020/DSE/1/19

Study the following news extract.

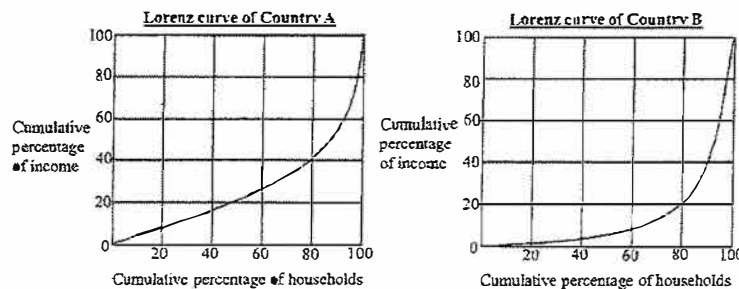
In the last decade, the rent of residential units in Berlin was doubled due to continuous increase in demand. To deal with the problem, the Berlin government imposed a 'Rent Frozen Bill' under which the rent of residential units was not allowed to increase for at least 5 years.

Suppose a similar bill is implemented in Hong Kong. Which of the following statements is correct?

- A. The Gini coefficient will increase.
- B. The property tax revenue of the government will increase.
- C. There will be a deadweight loss if the demand for residential units keeps on increasing.
- D. The property owners will have higher incentives to renovate their flats.

2020/DSE/1/22

Study the following two Lorenz curves.



Compared with Country B,

- A. the Gini coefficient of Country A is larger.
- B. Country A has a higher standard of living.
- C. the top 20% of households in Country A have less total income.
- D. Country A has a more even income distribution.

2020/DSE/1/23

The following table shows the data of average annual income earned by women and men according to their age in 2018.

Age	Average annual income of women (HK\$)	Average annual income of men (HK\$)
20 - 29	122 000	121 000
50 - 59	482 000	645 000

Which of the following may explain the phenomena shown by the above data?

- (1) Women tend to leave the job market earlier than men for taking care of the family, leading to fewer women to take up senior positions in companies.
 - (2) Sex discrimination in labour market exists in the older generations.
 - (3) Accumulation of human capital contributes to the difference in income between different age groups.
- A. (1) only
 B. (2) only
 C. (3) only
 D. (1), (2) and (3)

Short & Structured Questions

PP/DSE/II/11(d)

Under the School Textbook Assistance Scheme (STAS), needy students are granted subsidies to cover the costs of textbooks and miscellaneous school-related expenses. Explain how STAS can enhance equity in Hong Kong society. (4 marks)

2012/DSE/II/4

According to a report of the United Nation in 2008, the Gini coefficients of Hong Kong and Beijing were 0.53 and 0.22 respectively.

- (a) Was the income gap between the rich and the poor in Hong Kong wider or narrower than that in Beijing? (1 mark)
- (b) Explain how an increase in the standard tax rate of salaries tax will affect the post-tax Gini coefficient of Hong Kong. (3 marks)

2012/DSE/II/10(b)

In 2011, the Financial Secretary announced the "Scheme \$6 000" which provides \$6 000 to each Hong Kong permanent resident who is 18 years old or above.

Do you think that the government should introduce the "Scheme \$6 000" to improve equity in the Hong Kong society? Explain. (4 marks)

2013/DSE/II/7

Table 1 shows the Gini coefficients by occupation of Hong Kong in the years 2006 and 2011.

Table 1

	Gini Coefficient	
	2006	2011
Construction	0.362	0.385
Financing, insurance, real estate and business services	0.544	0.548

- (a) According to Table 1, which occupation has a smaller income inequality among its workers? Give TWO possible reasons that account for such a difference in income inequality. (4 marks)

Table 2 shows the employment distribution by industry section of Hong Kong in the years 2006 and 2011.

Table 2

	Employment distribution by industry section	
	2006	2011
Construction	8.0%	7.7%
Financing, insurance, real estate and business services	17.0%	19.2%

Table 3 shows the Gini coefficients of Hong Kong in the years 2006 and 2011.

Table 3

	2006	2011
Gini Coefficient	0.533	0.537

- (b) How may the data given in Tables 1 and 2 help explain the change in the income inequality of Hong Kong as reflected in Table 3? (4 marks)

2013/DSE/II/11

The government has launched the "Work Incentive Transport Subsidy Scheme", with the following objectives:

- (1) To relieve the burden of travelling expenses commuting to and from work on the part of low-income households with employed members
- (2) To promote sustained employment

Applicants must meet the monthly income and asset limits of the household (e.g. for a single person, the monthly income cannot exceed \$7 300 and the assets cannot exceed \$72 000) and work no less than 72 hours per month in order to apply for a subsidy of \$600 per month.

- (a) Do you think that the scheme can achieve the above two objectives? Explain. (4 marks)
- (b) (i) Discuss the effects of the scheme on income inequality. (3 marks)

2015/DSE/II/8

The government is considering spending a certain sum of its budget surplus on the following two proposals:

- Proposal 1: To extend the free education to 15 years*
Proposal 2: To provide unemployment benefits

Evaluate the two proposals in terms of equality. (4 marks)

2016/DSE/II/11

Medical service is one of the basic human needs.

Source B: an extract from the Hospital Authority webpage

The Hospital Authority is committed to providing community-based primary care services. Our target patients include the elderly, low-income individuals, and patients with chronic diseases.

- (c) With reference to Source B, explain how the services provided by the Hospital Authority can enhance equity. (2 marks)
- (d) Many people argue that public clinics should raise the fee to reduce the waiting time. Evaluate this argument in terms of equity. (2 marks)

2017/DSE/II/11(c)

The government of Country X introduces a per-unit subsidy to the education services of private universities.

Explain whether subsidizing education can help improve equality. (3 marks)

2019/DSE/II/2

Li Ka Shing Foundation offered an unconditional cash gift of \$5000 to each 2018 HKDSE candidate living in Yuen Long, Tuen Mun and Islands districts under the project "Decide Well, Spend Wisely".

Statement A: The project can improve the public examination results of candidates in those districts.

Statement B: The project can improve equity in Hong Kong.

- (a) Explain whether Statement A is a positive statement. (2 marks)
- (b) Justify Statement B. (4 marks)

MARKING SCHEME

1985/ALA/28 A	1993/ALA/30 C	2007/ALU/17 D	2012/DSE/U/20 D (82%)	2017/DSE/U/20 A (68%)
1991/ALA/12 C	1996/ALA/03 A	SP/DSE/A/19 B	2012/DSE/A/21 D (64%)	2017/DSE/A/21 D (91%)
1991/ALA/24 D	1998/ALA/04 C	PP/DSE/A/18 B	2014/DSE/A/20 A (73%)	2017/DSE/A/22 C (73%)
1993/ALA/26 A	1999/ALA/26 D	PP/DSE/A/19 D	2015/DSE/A/21 B (63%)	2019/DSE/A/19 C
2020/DSE/A/13 D	<i>Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.</i>			
	2020/DSE/U/19 C	2020/DSE/U/22 D	2020/DSE/A/23 D	
PP/DSE/II/1 (d) The STAS increases the income of the needy students' families while the rich families cannot enjoy this benefit. (2) The STAS will help equalize opportunities as it helps the needy students further their studies. Education can increase future income of the needy students so it may help narrow the income gap over time. (2)				
2012/DSE/II/4 (a) Wider (1) (b) Lower, because higher income group has a lower post-tax income while the income of lower income group remains unchanged. (2)				
2012/DSE/II/10(b) Equity is a subjective concept that involves value judgments. Different people use different standards of equity. (1) Yes, because the \$6 000 results in a higher percentage increase in income of the poor. (2) <u>OR</u> No, as it does not help equalize opportunities. Relative to the rich, the poor do not get more resources to improve their productivity / increase future income. (2) <u>OR</u> No, as it is not equalizing outcome as not everyone can benefit from the scheme, e.g. non-permanent residents and residents who are below 18 years old are not eligible for the \$6 000. (2)				
2013/DSE/II/7 (a) Construction. (1) This is because the entry to a particular occupation is closely associated with a person's human capital, which tends to be more homogeneous among the construction workers than among finance professionals. (2) The construction industry often pays their workers by time rates, which are more or less uniform across workers. In addition to basic salaries, compensations to the employees of financing, insurance, real estate and business services often include performance-based commissions, bonuses and profit-sharing, which may result in a greater diversity of income within this industry. (2) (Max. 3)				

- (b) The Gini coefficient, which reflects the degree of income inequality, has increased in the HK economy as a whole. (1)
As shown in Table 1, income inequality in both industries has increased. Other things being equal, this would contribute to the increase in the income inequality in the entire economy. (2)
As shown in Table 2, there is an increase in the proportion of working population in the industry with a larger disparity of income (i.e. financing, insurance, real estate and business services) and a decrease in the industry with a smaller disparity of income (i.e. construction). Other things being equal, this changing pattern of employment distribution across the two industries would contribute to the increase in the income inequality in the entire economy. (2)
(Max. 3)
- 2013/DSE/II/11
(a) Objective (1): Yes, as it provides cash subsidies relieving the burden on travelling expenses. (2)
Objective (2): Yes, if the WITSS continues to subsidize the workers on travelling expenses. (2)
OR
Objective (2): No, as employment (as well as unemployment) largely depends on the aggregate demand and supply of the economy (which may fluctuate over time) rather than the WITSS. (2)
- (b) (i) It helps to reduce the income inequality. It helps equalize outcome as it provides extra money for the lower-income group only / it increases their opportunity of finding a job with higher income because they can travel farther away from their residential area. (3)
- 2015/DSE/II/8
Proposal 1:
Equalizing opportunities:
Free education for longer years means that the poor are able to receive more education and improve their productivity and hence income-earning power in the future. (2)
Proposal 2:
Equalizing income/outcome:
More welfare payments to the unemployed could help reduce the income inequality between the employed (rich) and the unemployed (poor). (2)
- 2016/DSE/II/11
(c) Equalize income/outcome: basic medical service acts like a transfer or subsidy-in-kind, enjoyed mainly by the low-income group. The high-income group may choose not to "queue up" for such medical benefits and turn to private medical service instead. (2)
OR
Equalize opportunities: basic medical service provided to patients with chronic diseases would improve their health, allowing them to continue to work and earn income. Therefore, their income would not be affected by their ability to afford medical service (their background), but rather by their work effort. (2)
- (d) Equity:
After the fee raise, the poor may no longer be able to afford the fee and thus be deprived of the opportunity to enjoy the medical services. Equity may be worsened as the poor cannot enjoy the transfer/subsidy while the rich can still use the service. (2)
OR
After the fee raise, the poor may no longer be able to afford the fee and thus be deprived of the opportunity to enjoy the medical services. The poor may then be deprived of the chance to work and earn income due to their poor health. (2)
- 2017/DSE/II/11(c)
Yes. Subsidizing education is a measure to equalize opportunities, so the poor will not be deprived of university education due to financial constraint. Education could also raise their future income, thus reducing income inequality over generations. (3)

(a) Statement A is a positive statement because it is refutable by fact.

(2)

(b) Equalising income: the districts are with lower average household income so this cash will help narrow the income gap.

Equalising opportunity: the subsidy on education will enhance the chance of the poor to get higher education without being hindered by their backgrounds.

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max: 4