

Level 2 Exemplar and Comments

Section A (44 marks)

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

Yes, I agree. Because people will not pay for the free good, so it must be free of charge.

2. A chain restaurant providing Chinese cuisine set up a cake shop.

- (a) Explain which type of expansion this was. (2 marks)
- (b) List **TWO** possible motives for the above expansion. (2 marks)
- (c) After the opening of 10 more restaurants, the firm found that its average cost decreased. State **TWO** possible reasons for this. (2 marks)

a, Lateral expansion they are related but not direct competitive.

b, - enjoy economies of scale
- make good use of its brand-name

c, - high cost of production
- low income and revenue

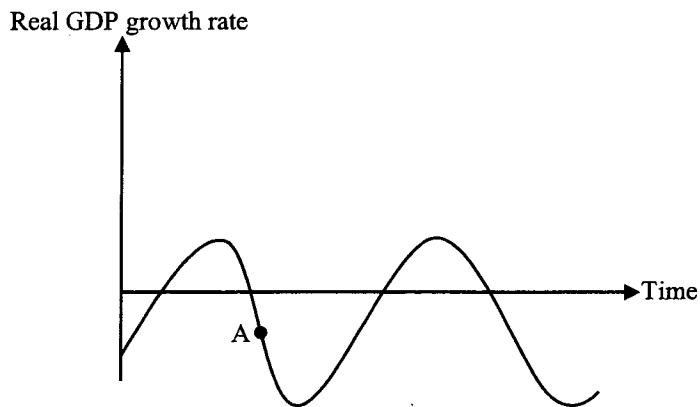
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3. Below are the gross domestic product (GDP) data of a country.



- (a) Identify the phase of business cycle which point A is in. (1 mark)
- (b) Apart from increasing unemployment rate, list **TWO** general economic phenomena which occur at point A. (2 marks)
- (c) State **TWO** losses to society caused by unemployment. (2 marks)

a. recession

b. - price level will decrease
- fewer investment

c. - Gross Domestic Products will decrease
- fewer people to consume

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4. Study the following information of an economy.

Year	Consumer price index (CPI)
2018	110
2019	117

- (a) Calculate the inflation rate in 2019. (1 mark)
- (b) Explain **ONE** difference between using CPI and GDP deflator to measure the change in the price level. (2 marks)
- (c) 'The continuous open market purchase of government bonds by the central bank is the cause of inflation in the economy.' Justify the statement with reference to the classical quantity theory of money. (4 marks)

a, the inflation rate in 2019:

$$\frac{117 - 110}{110} \times 100\%$$

$$= 6.36\%$$

b, CPI measures about consumer, GDP deflator measures about the whole country.

c, As $MV = PY$ is equal to PY , the continuous open market purchase of government bonds by the central bank, money supply will increase, assumed that V and Y are remains unchanged, the price will increase, so there is an inflation in the economy.

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5. (a) What is the opportunity cost of holding money? Explain. (2 marks)
- (b) Peter owes Mary \$100 and he has no cash in his wallet. He suggests repaying Mary by a cash coupon (with a face value of \$100) issued by a supermarket chain. Give **TWO** economic reasons to explain why Mary would refuse to accept the cash coupon as a repayment of Peter's debt. (4 marks)

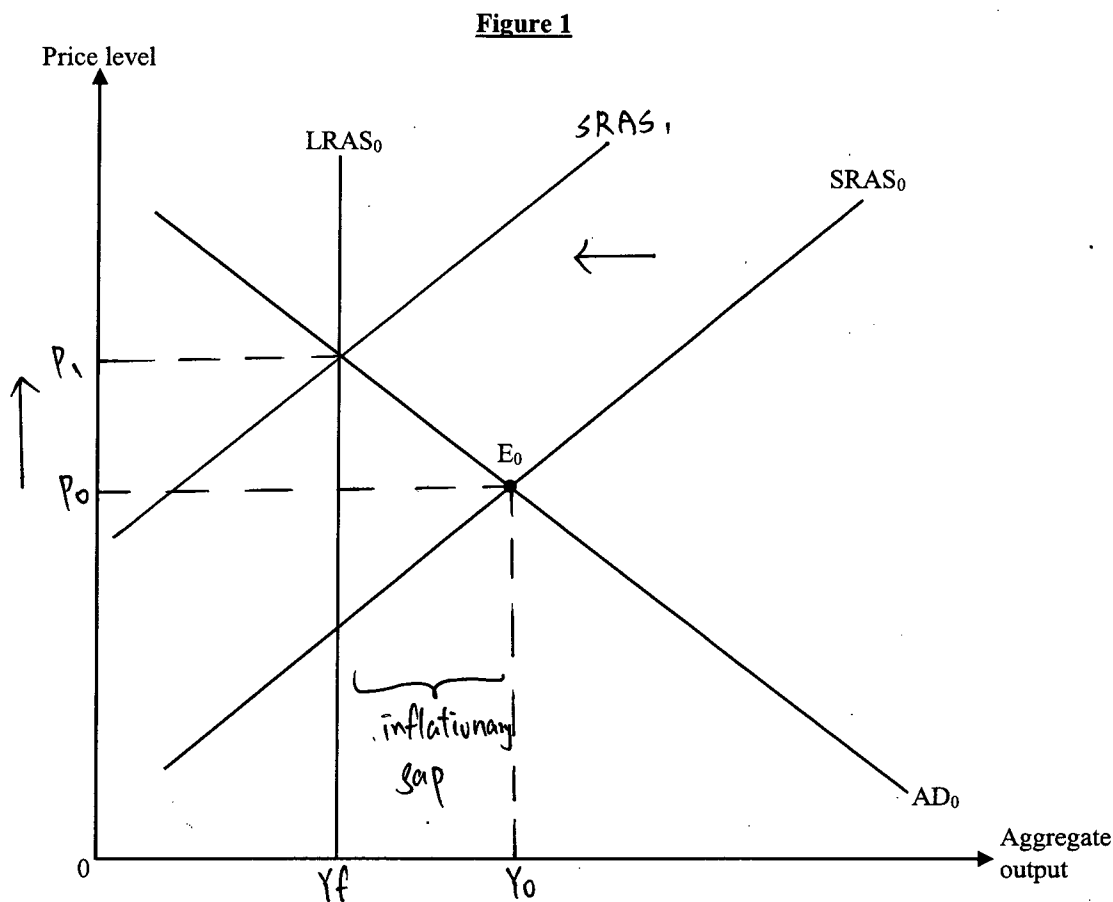
a. The opportunity cost of holding money is investment, as they are holding money, they do not have money to ^(invest) stock or bond.

b.

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6. Refer to Figure 1.



Suppose an economy initially operates at E_0 . With the aid of Figure 1, explain how market forces can restore the aggregate output level to the full-employment output level in the long run. (5 marks)

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Wealth effect = When price level decreases, purchasing power of money increases, real value of assets in terms of money increases, spending money for all goods and services increases, real output increases.

When short run aggregate supply decreases from $SRAS_0$ to $SRAS_1$, price will increase from P_0 to P_1 , and aggregate output level will decrease from Y_0 to Y_f (restore to the full-employment output level).

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7. Suppose the outputs per unit of resources of Country A and Country B are as follows:

	Toys (units)	OR	Cars (units)
Country A	10	OR	10
Country B	20	OR	10

- (a) Which good would Country B export according to its comparative advantage? Explain. (3 marks)
- (b) Suppose Country A and Country B trade at an exchange ratio of 5 units of toys to 4 units of cars. A transportation cost of 0.2 units of cars is required to exchange for 1 unit of toys and the cost is equally shared by both countries. Calculate the gain per unit of export of Country B. Show your workings. (3 marks)

a, Country A = 1 unit of toys = 1 unit of cars
 Country B = 1 unit of toys = 0.5 units of cars
 ∴ Country B would export toys, as its cost is lower

b,

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8. Study the following balance sheet of the banking system in Country A.

Assets (\$million)		Liabilities (\$million)	
Reserves	1 000	Deposits	4 000
Loans	3 000		

Suppose the public always hold \$800 million cash and the banking system does not hold excess reserves.

- (a) Find the monetary base and money supply in Country A. (2 marks)
- (b) Suppose firms withdraw \$700 million from the banking system and remit the whole amount overseas.
- (i) Find the change in monetary base in Country A. (1 mark)
- (ii) Calculate the maximum possible change in money supply in Country A. Show your workings. (3 marks)

a, monetary base = reserves + cash
 $= \$1\,000\text{ million} + \800 million
 $= \$1\,800\text{ million}$

money supply = cash + deposits
 $= \$800\text{ million} + \$4\,000\text{ million}$
 $= \$4\,800\text{ million}$

bi, the change in monetary base = -700 million

bi, required reserve ratio = $\frac{\$1\,000\text{ million}}{\$4\,000\text{ million}} \times 100\%$
 $= 25\%$

maximum banking multiplier = $\frac{1}{25\%} = 4$

new reserve = $\$1\,000\text{ million} - \$700\text{ million} = \$300\text{ million}$

new deposits = $\$300\text{ million} \times 4 = \$1\,200\text{ million}$

new money supply = $\$800\text{ million} + \$1\,200\text{ million}$
 $= \$2\,000\text{ million}$

the change in money supply = $\$2\,000\text{ million} - \$4\,800\text{ million}$
 $= -\$2\,800\text{ million}$

END OF SECTION A

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Section B (60 marks)

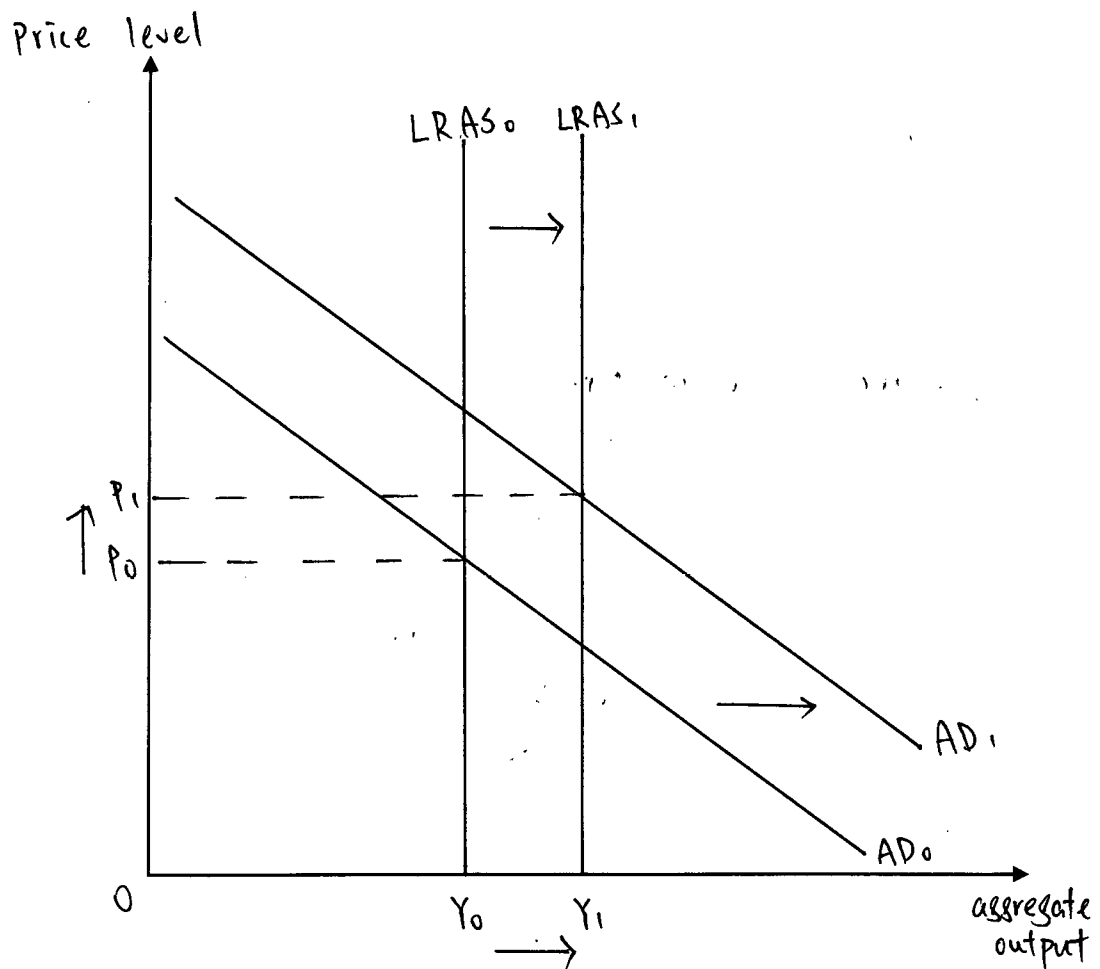
9. Ocean Park and Hong Kong Disneyland are the two large theme parks in Hong Kong.

- (a) What is the market structure of the theme park industry in Hong Kong? List **TWO** features of this market structure. (3 marks)

The first hotel in Ocean Park was launched in 2018 while the second hotel and the water park were scheduled to be opened before 2021. It is expected that such infrastructure development can attract more tourists to stay longer in Hong Kong.

- (b) Other things being equal, what will be the effects of the infrastructure development on Hong Kong's aggregate demand and long run aggregate supply in the future? How about on aggregate output? Explain your answers with the aid of a diagram. (8 marks)

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- (c) Instead of obtaining bank loans to finance the infrastructure development, it is suggested that Ocean Park can be listed in the stock market and issue shares to raise capital. State **TWO** advantages of issuing shares over obtaining loans from banks for raising capital. (2 marks)
- (d) The contribution of the infrastructure development of Ocean Park to Hong Kong's GDP in 2019 could be smaller than the total amount invested in the two hotels and the water park. Explain why the statement may be correct with **TWO** reasons. (4 marks)

a, Private limited company
 - it has legal entity
 - it does not need to disclose its financial situation

b, As there are more infrastructure development in Hong Kong, there will be more facilities for locals and tourists. long run aggregate supply will increase from $LRAS_0$ to $LRAS_1$. Also, the infrastructure development attracts more tourists to stay longer, the aggregate demand for using the infrastructure increases from AD_0 to AD_1 , so the aggregate output is also increases from Y_0 to Y_1 .

c, - wider source of capital
 - no need to pay back the loans to the shareholders.

d, - the gross domestic product is calculated in a given period (in 2019), but the time of investing in the two hotels and the water park could be longer than that.

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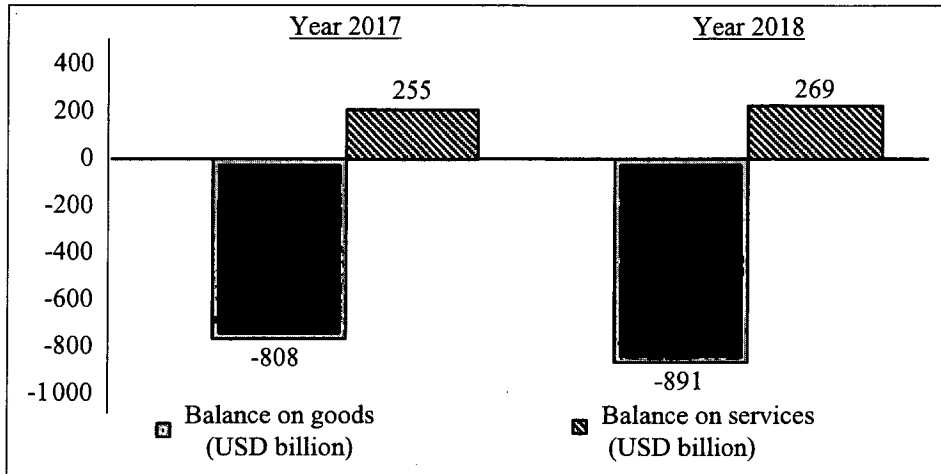
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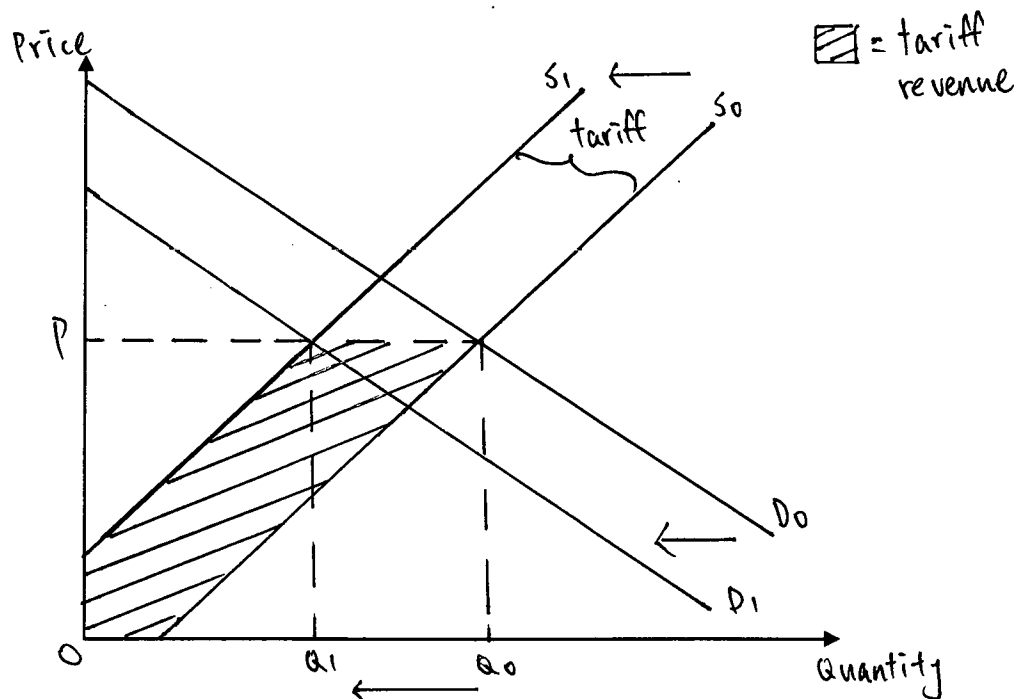
10. The following source shows the current account data of the US in 2017 and 2018.



- (a) (i) Describe the changes of current account data of the US in the above source. (2 marks)
- (ii) 'Based on the above source, we can conclude that the current account deficit of the US in 2018 necessarily increased.' Do you agree? Explain. (2 marks)

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.

- (b) (i) 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.)
- (ii) Indicate the tariff revenue (i.e. sellers' burden) in the same diagram. (1 mark)

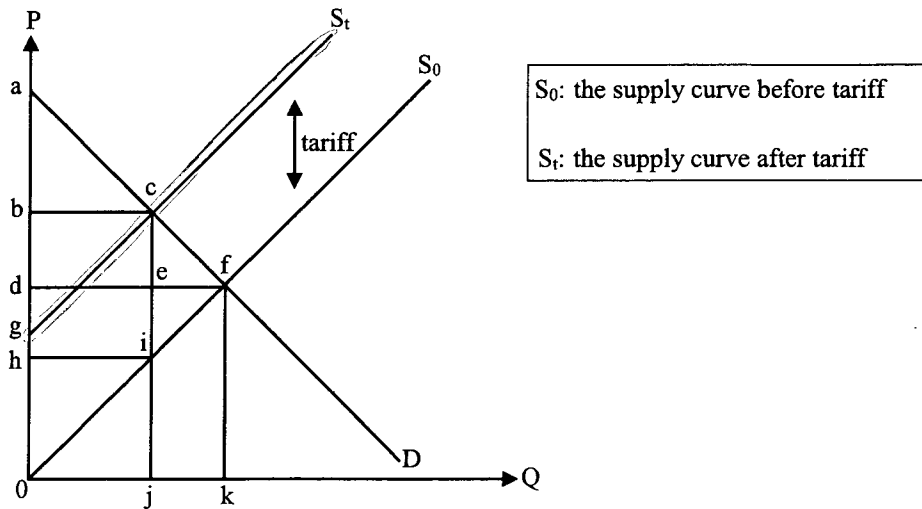


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(c) Economists argue that tariff may harm both the consumers and producers.



With reference to the above supply-demand diagram, complete the table below. (3 marks)

	Before tariff	After tariff
Consumers' surplus	Area <i>adf</i>	Area <i>adec</i>
Producers' surplus	Area <i>odf</i>	Area <i>odei</i>

(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)

in 2018
 a.i, the balance on goods is worse ^{in 2018}, but the balance on services is better in 2018.

a.ii, No, I do not agree. The current account is also include the income and transfer, so we cannot conclude that without enough data.

b.i, When decrease in supply is equal to decrease in demand, the price will remains unchanged, so the consumers would not bear the tariff.

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d. Advantage = increase the government income.

Disadvantage = high price levels in imports.

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11. Traffic congestion in the cross harbour tunnels during peak hours is a serious problem in Hong Kong. For simplicity, the discussions below only focus on two cross harbour tunnels in Hong Kong, namely the Cross-Harbour Tunnel (CHT 紅隧) and the Western Harbour Crossing (WHC 西隧).

Source A: Existing tunnel tolls for private cars

CHT (owned by the government)	\$20
WHC (owned by a private firm)	\$75

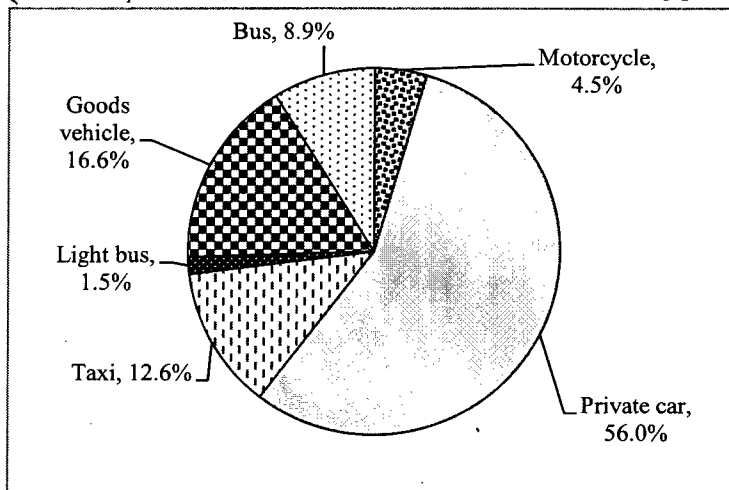
Source B: Traffic information during peak hours of the two tunnels

	Designed capacity per hour	Actual number per hour	Queue
CHT	2 600 (cars)	4 400-4 600 (cars)	1 500-3 000 (metres)
WHC	4 200 (cars)	3 600-3 800 (cars)	0 (metres)

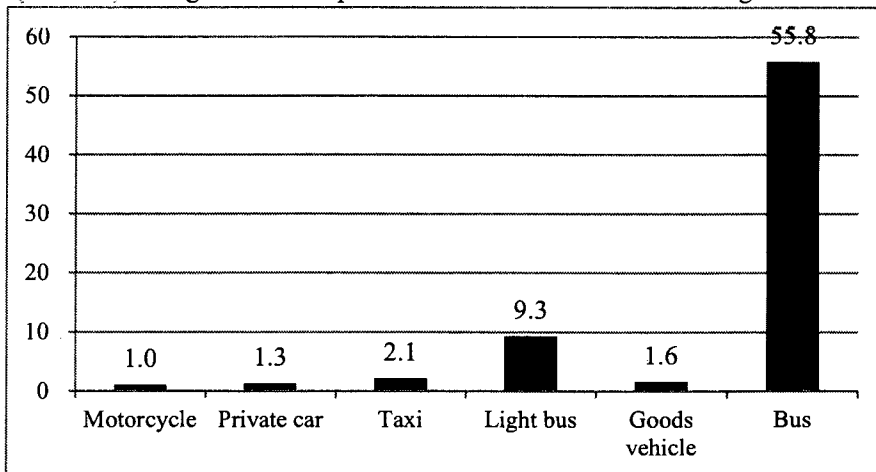
Source C: An extract of a report on traffic congestion

Traffic congestion not only affects individual drivers, but also results in inconvenience to society as a whole. Apart from the time wasted during congestion, people also need to allow extra time for the journey to cater for the uncertainty in travelling time. The stop-and-go traffic pattern during congestion increases the total operating costs of vehicles as more fuel would be consumed.

Source D: Percentage of vehicles crossing the harbour during peak hours (by types of vehicles)



Source E: Average number of persons in each vehicle when crossing the harbour during peak hours



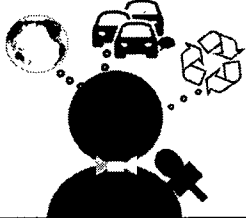



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Source F: Views on cross-harbour traffic in Hong Kong

<p>A politician</p> 	<p>Every citizen needs to travel across the harbour. An increase in tunnel tolls affects everyone, especially the low-income group.</p>
<p>A government official</p> 	<p>We cannot underestimate the difficulty in negotiating any adjustment in tunnel toll of WHC. The government has no right to object to the tolls set by WHC.</p>
<p>An environmentalist</p> 	<p>Reducing traffic congestion in cross harbour tunnels is only one tiny step. The root of the problem is that there are too many cars in Hong Kong.</p>
<p>A taxi driver</p> 	<p>Channeling traffic to the under-utilised WHC benefits every road user and this allows taxi drivers to have more businesses.</p>

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- (a) Refer to Source A State **ONE** advantage and **ONE** disadvantage of providing cross harbour services by a private firm instead of the government. (2 marks)
- (b) Refer to Source B With the aid of a supply-demand diagram, explain the phenomenon in the CHT (紅隧) during peak hours. (4 marks)
- (c) Refer to Source C
- Explain, with **ONE** example, why there may be a divergence between private and social costs during traffic congestion. (3 marks)
 - Explain why the situation in part (i) may result in inefficiency. (2 marks)
- (d) According to Sources D and E, explain why private cars may be regarded as one of the major sources of traffic congestion in the cross harbour tunnels. (2 marks)
(Assume that the number of persons using the cross harbour tunnels per day during peak hours is constant.)

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For part (e), candidates are required to present their answers in an essay form. Criteria for marking will include the use of sources and economic theories, relevant content, logical presentation and clarity of expression.

- (e) Suppose there are two cross-harbour-tunnel-toll adjustment proposals to relieve the problem of congestion:

Proposal I	The government raises the toll of the CHT (紅隧) for private cars to \$75.
Proposal II	The toll of the WHC (西隧) for private cars is reduced to \$20.

With reference to the above sources and your own knowledge in Economics, discuss which proposal, proposal I or II, each of the following groups of stakeholders would prefer:

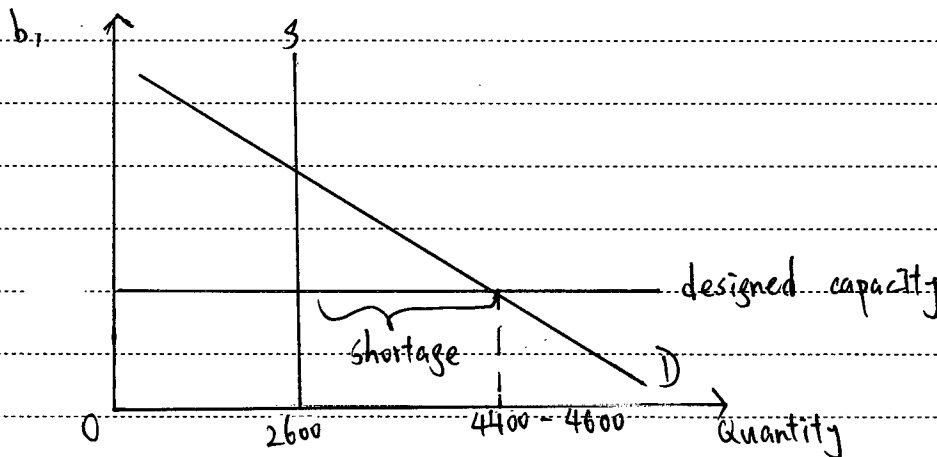
- the owners of the WHC company
- the politicians who are concerned about the income inequality in Hong Kong
- the government economists who are concerned about government revenue and/or expenditure
- **ONE** other group of stakeholders

(Hint: You may discuss the reasons why one group of stakeholders would prefer a certain proposal **OR** why that group would not prefer the other proposal.)

(14 marks)

- (f) Suggest **ONE** proposal, other than tunnel-toll adjustment, for relieving the traffic congestion problem. Briefly explain how your proposal works. (2 marks)

a, Advantage: reduce the cost of production of the government
 Disadvantage: Higher price charges from the users



As there is a designed capacity, the demand for using the cross-harbour tunnel is greater than the supply during the peak hours. When quantity demanded is greater than the quantity supplied, there is a shortage.

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c.)

c.) When marginal benefit is greater than the marginal cost, there is a deadweight loss which is the potential gain that is not captured, so it is an inefficiency.

d. As the average number of persons that the private car only can carry 1.3 people, and many of them own their own private cars, so the private cars are the highest percentage (56%) crossing the harbour, therefore, it is one of the major sources of traffic congestion.

e. First of all, the owners of the WTC company would prefer Proposal II, as their original toll is too high, many people do not use it, for increasing its competitiveness, the owners of the WTC company would prefer Proposal II to attract more customers.

Second, the politicians who are concerned about the income inequality would prefer Proposal II. As a politician in source F said that an increase in tunnel tolls affects everyone, especially the low-income group, it should be reduce the tolls to allow income equality to be more even.

Next, the government would prefer Proposal I. As CH1 charges \$20 originally, the government cannot receive lots of revenue. For increasing the income, the government

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would prefer to increase the tolls.

The stakeholders of WTC would prefer proposal I. As the CHT charges at a lower price, most people do not use WTC, the income would be not enough. For increasing their competitiveness, they would like government to charge higher tolls, the revenue of CHT would increase.

The environmentalist would prefer Proposal I. As the root of traffic congestion is too many cars, it will reduce the number of cars when all tunnels charge at a high price, it encourages people to use public transportation instead of cars who are crossing the harbour.

The taxi driver would prefer Proposal II. He said that channeling traffic allows them to have more business, if they waste many times for crossing the harbour, they would earn less income. Also, they can pay at a lower price if Proposal II implemented.

f. they charge at medium price, it could be balanced the users.

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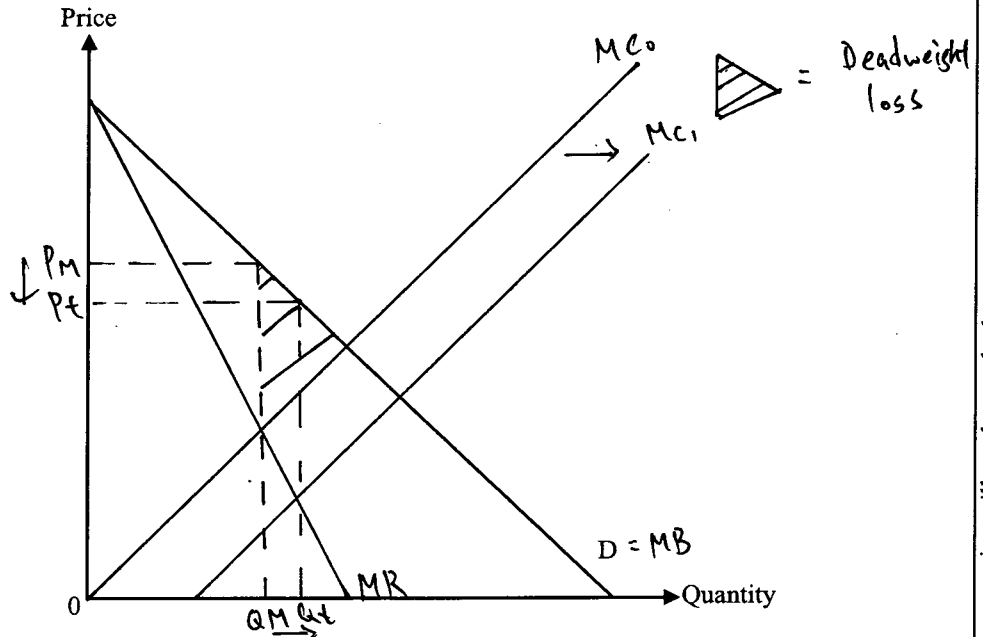
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Section C (16 marks) Answer any ONE question.

12. ABC Electricity Limited, the sole supplier of electricity in Country A, adopts uniform pricing.

- (a) If the marginal cost is constant, explain how the profit-maximising output of ABC Electricity Limited will be determined. Indicate the output (Q_M), the price (P_M) and the deadweight loss in Figure 2. (5 marks)

Figure 2



- (b) Suppose the government imposes a lump sum tax, which is a fixed amount regardless of the quantity produced, on ABC Electricity Limited. (Assume that the tax amount is smaller than the profit.)
- (i) Indicate the after tax profit-maximising output (Q_t) and price (P_t) in Figure 2. (2 marks)
- (ii) Explain whether economic efficiency would worsen as a result of the tax. (2 marks)
- (c) ABC Electricity Limited charges users in the urban area \$1 per unit of power consumed and users in the rural area \$1.5 per unit of power consumed. Define price discrimination and explain why this price arrangement may NOT constitute price discrimination. (3 marks)

ABC Electricity Limited planned to install new equipment for electricity supply in the rural area and asked the equipment providers to bid for the contracts. It was found that the two equipment providers in a region agreed to take turns being the bid winner.

- (d) (i) Which anti-competitive behaviour would the above case constitute? If the above case happened in Hong Kong, which conduct rule of Competition Ordinance would be violated? (2 marks)
- (ii) State TWO ways the above behaviour would harm ABC Electricity Limited. (2 marks)

a. When marginal revenue is equal to marginal cost, there is a monopoly quantity.

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bii) As the marginal benefit is greater than before, the deadweight loss becomes greater, so it would be worsen.

c., Price discrimination is charge different price to different customers for the same goods or services, not because of differences in costs.

As the costs in urban area is lower than rural area, so price arrangement may not constitute price discrimination.

d.i) bid ridding.
the second conduct rule.

dii) - its brand-name would be harm.

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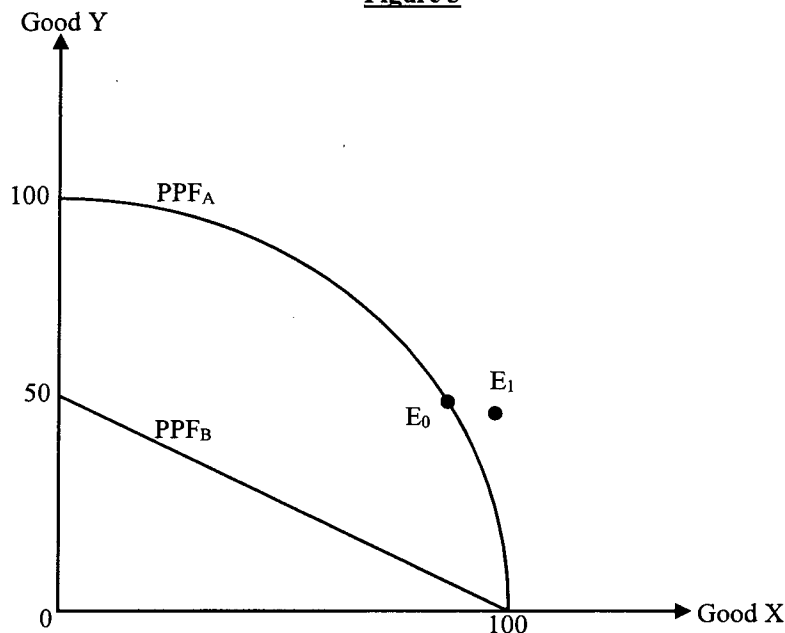
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13. Refer to Figure 3. PPF_A and PPF_B are the production possibility frontiers of Country A and Country B respectively. E_0 is the consumption point of Country A without trade.

Figure 3



Assume the domestic cost of production of 1 unit of Good X in Country A is 1.5 units of Y at E_0 .

- (a) With reference to the domestic production costs of Country A and Country B, explain which country will specialise in producing Good X. (3 marks)
- (b) After Country A engages in trade with Country B, the consumption point of Country A is E_1 .

Indicate in Figure 3,

- (i) the consumption possibility frontier (CPF_A) of Country A (Hint: CPF_A should pass through E_1),
- (ii) the production point (A_T) of Country A after trade and explain your answer in terms of terms of trade, and
- (iii) the consumption possibility frontier (CPF_B) and the production point (B_T) of Country B after trade. (5 marks)
- (c) Suppose Country B adopts artificial intelligence technologies in the production of Good Y, which doubles her productivity of the good.
- (i) Explain whether your answer in part (a) would be affected by the above change. (2 marks)
- (ii) Give **TWO** reasons to explain why the adoption of artificial intelligence technologies may boost economic development of Country B. (4 marks)
- (iii) Apart from adopting artificial intelligence technologies, list **TWO** factors that may boost economic growth. (2 marks)

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Sources of materials used in this paper will be acknowledged in the *HKDSE Question Papers* booklet published by the Hong Kong Examinations and Assessment Authority at a later stage.

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Comments

The candidate:

- provides basic definitions of economic terms and basic descriptions of economic concepts, such as Questions 1 and 3(b), (c).
- demonstrates a basic understanding of the links between economic data, concepts, relationships and theories, such as Questions 2(a), (b) and 5(a).
- gives some explanation of economic issues, government policies and their impacts in the context of economics, such as Questions 4(c), 10(d) and 12(c), (d).
- makes judgments with respect to arguments, proposals and policies, such as Questions 9(c), (d).
- demonstrates basic computational and graphical skills in descriptions or discussions involving economic contexts, such as with the diagrams in Questions 3(a), 6, 9(b), 11(b) and 12(a), (b), and the calculations in Questions in 4(a), 7(a), 8 and 10(a).
- provides basic descriptions of economic issues and government policies in communication with people, such as in Questions 11(a), (c), (d) and (e).