

# Level 2 Exemplar

## Section A (44 marks)

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

Agree. Free good is a good, <sup>which</sup> people want some but not more. Free good such as sea water is free of charge. No one will pay for free good. It is not scarce.

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 similar type but not the same, which is food.

(b) To enjoy economic of scale, to spread their brand name.

(c) First, enjoy economic of scale, so that they can use the resource well with lower cost. Second, they can lower the cost of research and development since it is a big firm.

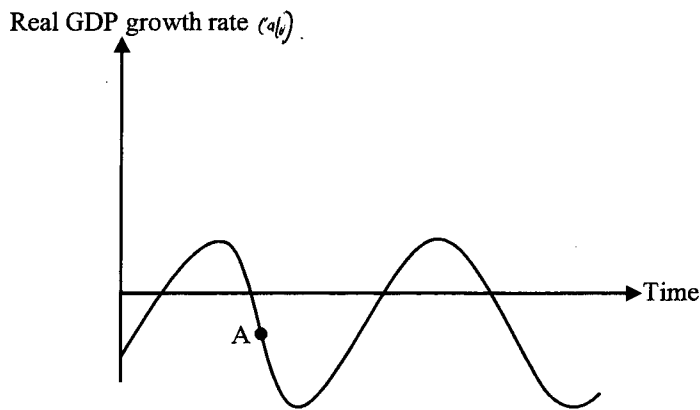
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3. Below are the gross domestic product (GDP) data of a country.



- (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) Concession

(b) The GDP growth rate is decreasing and the investment is decreasing from foreign<sup>↑</sup>

(c) In society, the total production will decrease<sup>↑</sup>, and the society will be not stable since the people's bad feeling may make violence. (because<sup>at</sup> unemployment, less people have job.)

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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) Inflation rate in 2019 =  $\frac{117-110}{110} \times 100\% = 7\%$

(b) CPI is to measure change in price level by consumer while GDP deflator is measure by the producing output.

(c) Yes, open market purchase can increase the money supply. When there is open market, the investment increase, more capital can go in. It also increase trade and efficiency. But when there is more efficiency, it is more uneven and less equality. When people earn more and the product produced more, they will have inflation since the real value of money decrease.

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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 the gain of using the money to earn interest by lending to other.

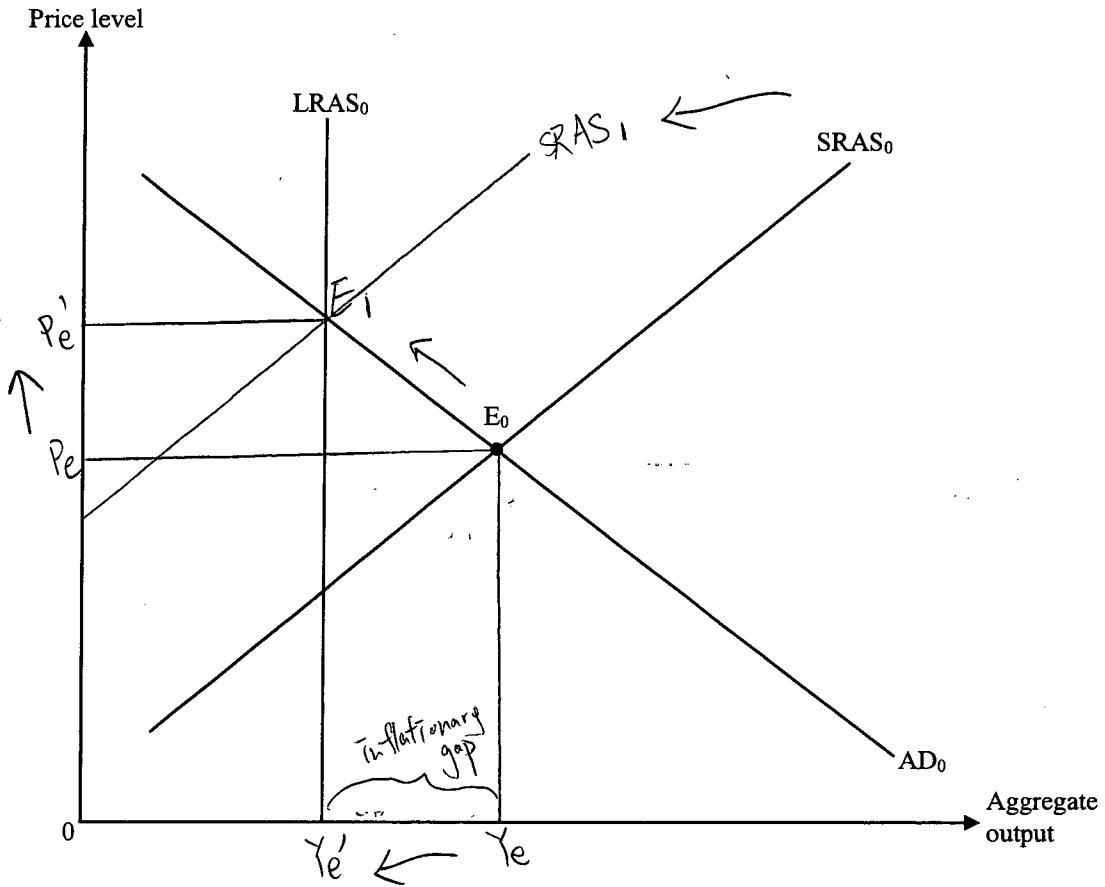
(b) First, the cash coupon is not the medium of exchange <sup>in the world</sup>. It is only for using in the supermarket. Second, the cash coupon is not liquider than cash, Mary cannot transfer it to other easily than cash.

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6. Refer to Figure 1.

**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)

Since the market have inflationary gap, the factor is fixed in short run. When it turns to long run, there is no fixed factor, the equilibrium will adjust itself to the new equilibrium in  $E_1$  which marginal benefit equal to marginal cost by market.

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

	Toys (units)	Cars (units)
Country A	10 1T OR	10 1C
Country B	20 $\frac{20}{10}$ 2C OR	10 $\frac{10}{20}$ 0.5T

$5T = 4C$

$C = 0.2 \frac{T}{2}$

- (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 B have comparative advantage in Car. In 1 Toys, they need  $\frac{20}{10} = 2$  Car of resource to produce 1 Toy. They need  $\frac{10}{20} = 0.5$  Toy to produce 1 Car only.

(b) First  $5 \text{ Toy} = 4 \text{ Car}$ ,  $1 \text{ Toy} = \frac{4}{5} \text{ Car} = 0.8 \text{ Car}$ .

Country A have comparative advantage in Toys so it product Toy and Import Car.

The gain per unit of export of Country B  
 $0.8 - (\frac{0.2}{2}) = 0.7 \text{ Car}$

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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 =  $(1000 + 800)$  million = \$1800 million.

money supply =  $(1000 + 800) \times \frac{4000}{1000}$  = \$7200 million

(b) (i) The monetary base =  $(1800 - 700)$  million = \$1100 million, It will decrease \$700 million

(ii) The decrease =  $700 \times \left(\frac{4000}{1000}\right)$  = \$2800 million ∴

The maximum possible change in money supply  
=  $7200 - 2800$  = \$4400 million.

It decrease \$2800 million

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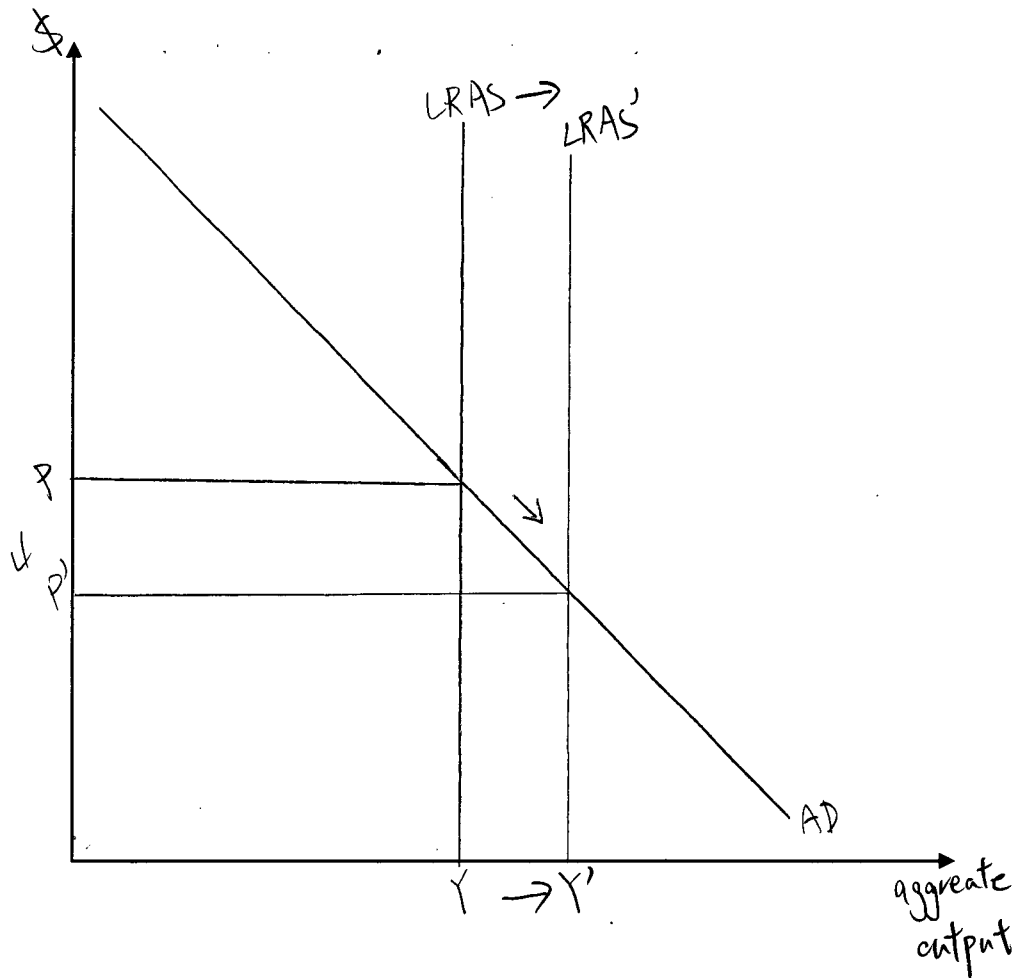
**Section B (60 marks)**

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) Oligopoly. The features is that it have few large firm and other small firm. It has imperfect information in the market.

(b) As the infrastructure development, it increase the <sup>variable</sup> factor, the long run aggregate supply will increase and shift to the right. The price will decrease and the aggregate output will increase since lower price, more demand, the law of demand, people will buy more. (Since in long run, there is no fixed factor, it can produce more by adding factor)

(c) Issuing shares, ~~can have wider source of capital than~~ ~~the~~ Company can choose to releases shares to shareholder or not. But for loan, company must return interest. They can give less shares to shareholder when there have loss. also

(d) It may be correct because if the cost is too high and the profit cannot cover the cost. Then the output will be smaller and GDP lower. Also, if the demand of using hotels and water park is low, the GDP will be smaller than before. People may not stay longer with the two hotel and the water park.

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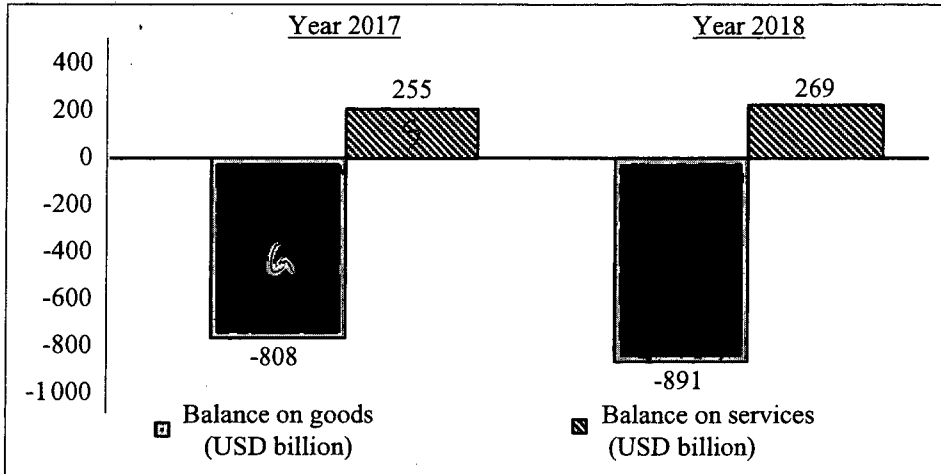
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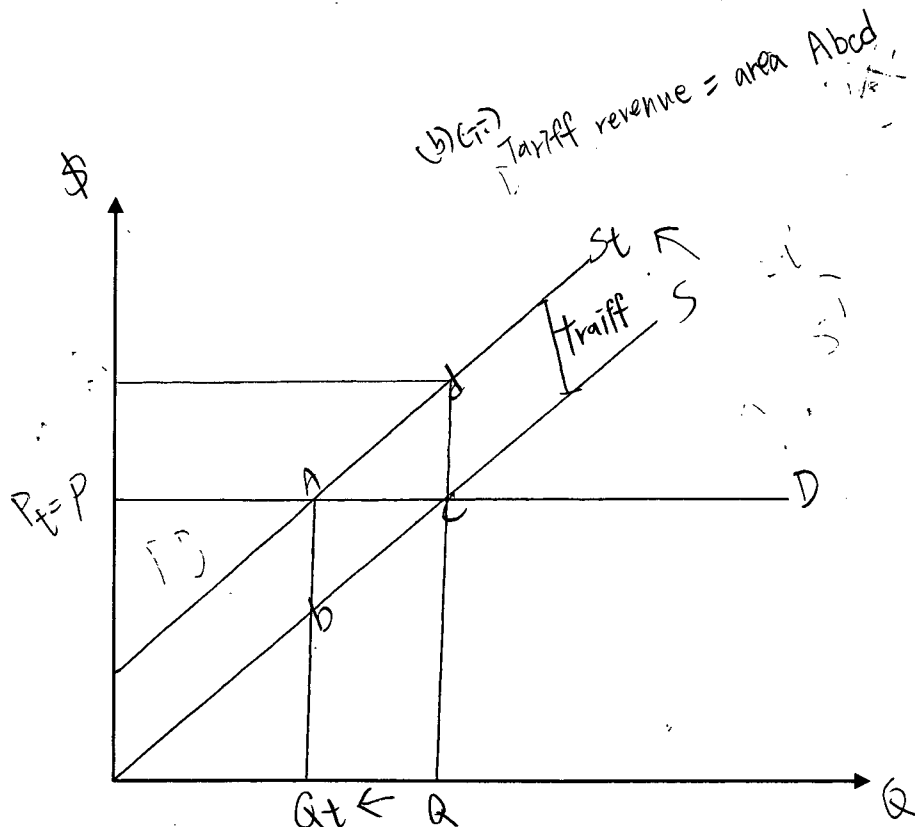
10. The following source shows the current account data of the US in 2017 and 2018.



- (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)

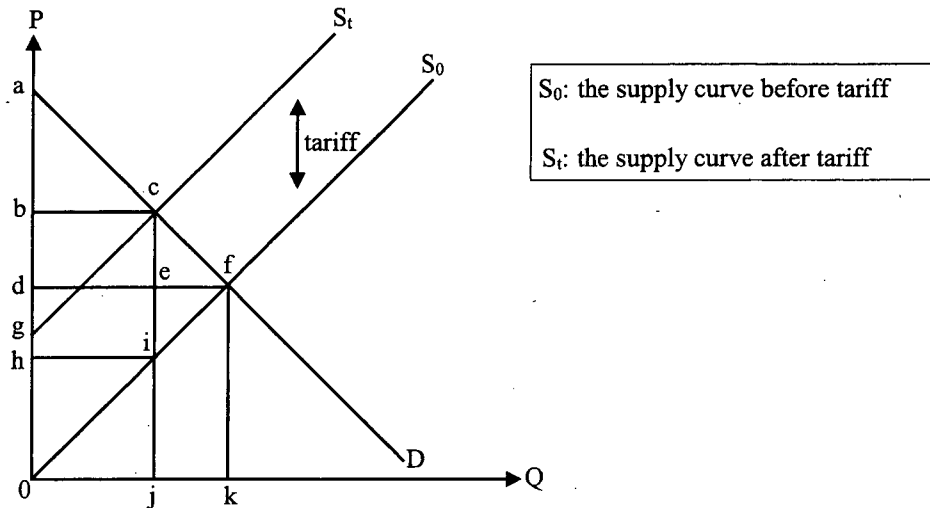


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(c) Economists argue that tariff may harm both the consumers and producers.



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

	Before tariff	After tariff
Consumers' surplus	Area adf	Area abc
Producers' surplus	Area fgo	Area bcjo

(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)

10. (a) (i) The balance on good decreased 83 USD billion and balance on service increased 14 USD billion.

(ii) Disagree. Since the measure of current account deficit is the sum of market balance of producing and reserves from firm, if the source, we cannot know the reserves from firm, so we could not conclude that change in

b (i) When the demand is perfectly elastic, people only buy in fixed price. In this case consumer bear no tariff burden, because they no need to pay more amount to buy the output

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(d) The advantage of using tariff instead of quota is that tariff can help earn more tax revenue for government.

The disadvantage is that tariff increase the price of output than the quota.

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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

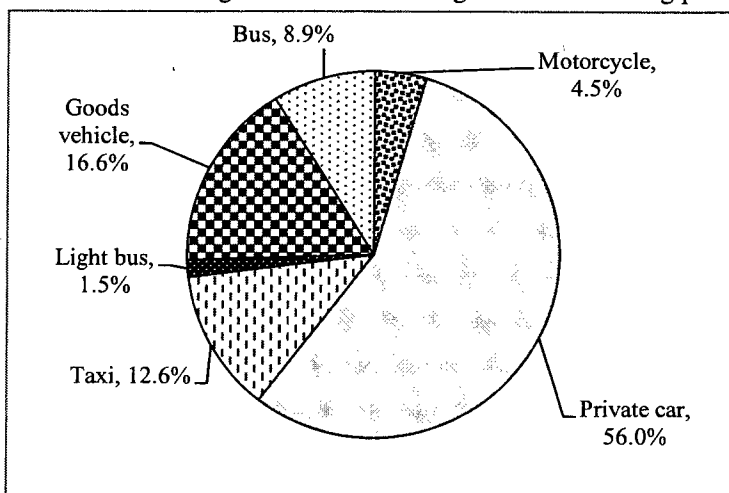
Source B: Traffic information during peak hours of the two tunnels

	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)

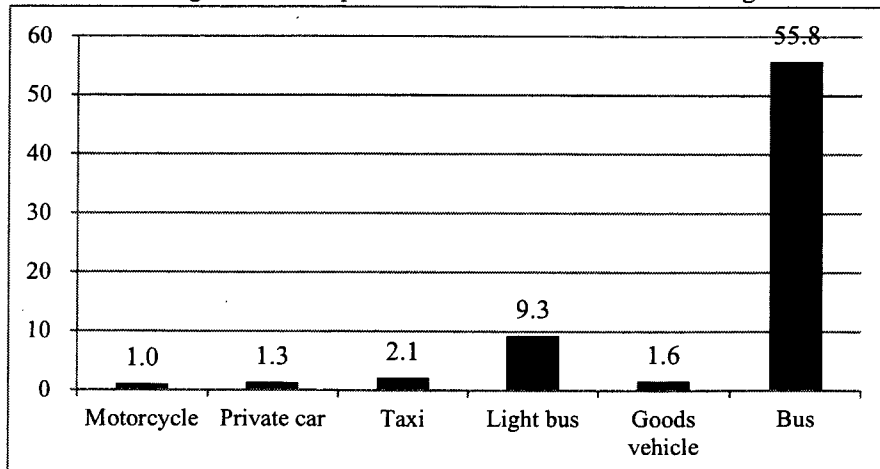
Source C: An extract of a report on traffic congestion

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



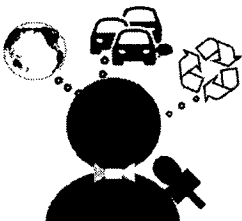



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Source F: Views on cross-harbour traffic in Hong Kong

<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.
- (i) Explain, with **ONE** example, why there may be a divergence between private and social costs during traffic congestion. (3 marks)
- (ii) 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:

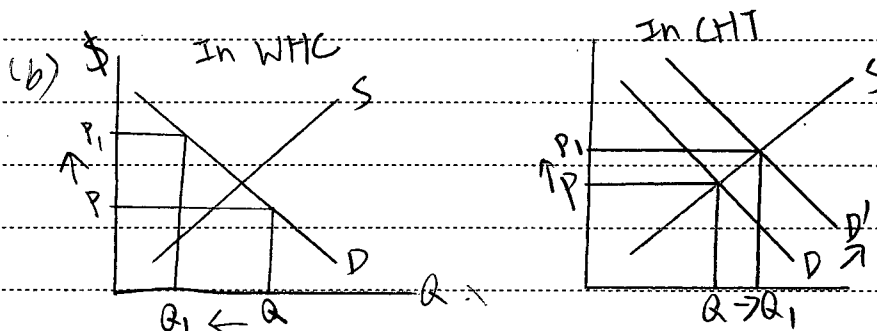
- the owners of the WHC company
- the politicians who are concerned about the income inequality in Hong Kong
- the government economists who are concerned about government revenue and/or expenditure
- **ONE** other group of stakeholders

(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) The advantage is that the revenue of private firm is higher than government. The disadvantage is that it will increase economy burden on public who use the services. It may be lower living-standard.



Since WHC and CHT is substitute when the price of WHC is increase, people useless WHC and prefer using CHT, the demand of CHT will increase.

(c)(i) There may be a divergence between private and social costs since it bring more time cost to other people without any payment.

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(c)(ii) It may be inefficiency since people time cost is increase, the loss of chance to use these time to earn more or product more good, which have deadweight loss.

(d) It is because there is so many cars on Hong Kong and most of them are private cars. and each private cars only have average 1-3 person while other is higher than this number, it is inefficient.

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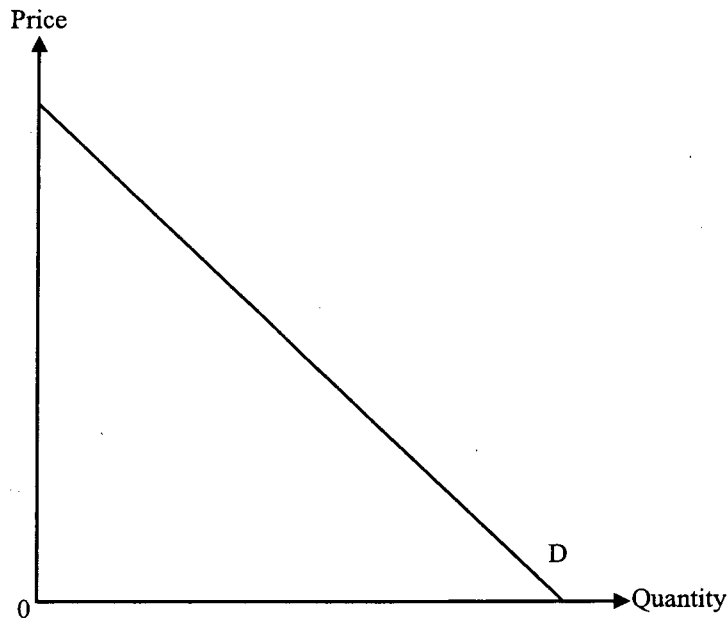
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**Section C (16 marks) Answer any ONE question.**

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)

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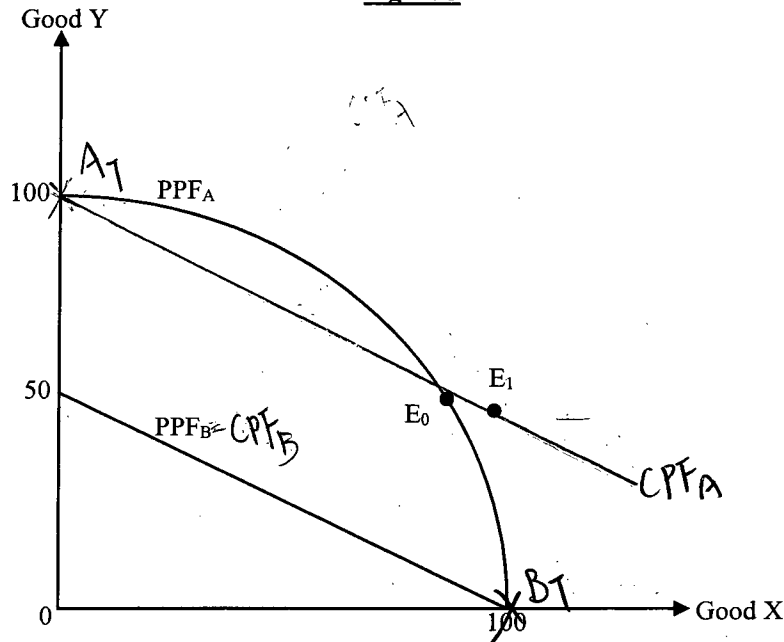
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13. Refer to Figure 3.  $PPF_A$  and  $PPF_B$  are the production possibility frontiers of Country A and Country B respectively.  $E_0$  is the consumption point of Country A without trade.

**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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(a) The slope of point  $E_0$  in Country A is larger than slope of PPF in Country B, Country B have comparative advantage in producing good X. So, country B will produce good X.

~~(b) (i) Consumer possibility increased.~~

~~(ii) The term of trade is  $1X = 1.5Y$ , The production point of country A is increased since they can have trade and can gain from the term of trade  $\frac{2}{3}X$  with  $1Y$ .~~

~~(iii)~~

(c) (i) No, since the slope of Country B is 1 and compare with Country A, Country B still have the comparative advantage in producing good X, Because the slope of point  $E_0$  in Country A is larger than in Country B

(ii) First, with more technology, the productivity will increase, it help economic development which can have more income. Second, with the technology, ~~\*~~ people <sup>with</sup> healthier and live longer the labour force is wider.

(iii) One is improving education which people can increase their productivity. Second is that lower the working age range. Lower the minimum working age and higher the retired age which can increase labour force.

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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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