# Level 1 Exemplar

**Section A** (44 marks)

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

No, free goods means that the quanity is larger than the human wants and can let people free to use or take. But that free goods still have its value, it needs cost to make it.

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, it produce similar but not the same product, one provide Chinese cuisine the other one is ~~a~~ a cake shop, both are food but not the same product.

b) Enjoy the economic of scale
Advertisment

c) Average cost decreased, cost of production ~~increase~~, decrease
factor of production decrease

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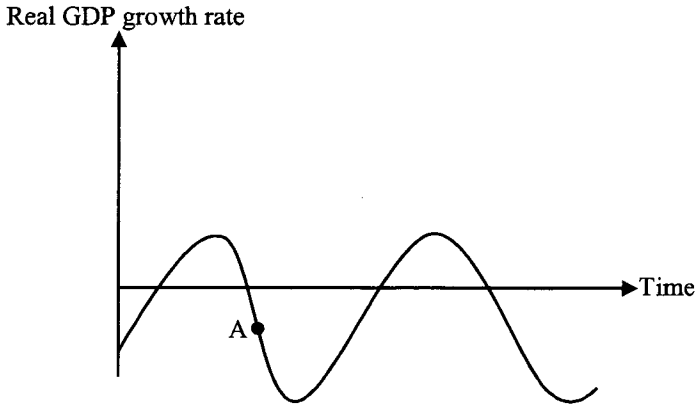
3. Below are the gross domestic product (GDP) data of a country.




(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) underproduction

b) Cost of production decrease, factor cost decrease

c) ~~GDP~~ GDP decrease, income level decrease

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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 = $\frac{117-110}{110} \times 100\% = 6.36\%$

b)

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Store of va
durable
unit of
deferred

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) Transaction , Assets

b) Store of value, the coupon (with a face value $100), If during inflation, the cost of the coupon will decrease, Durable, the coupon are easily to broken, it's not a ~~the~~ kind of money.

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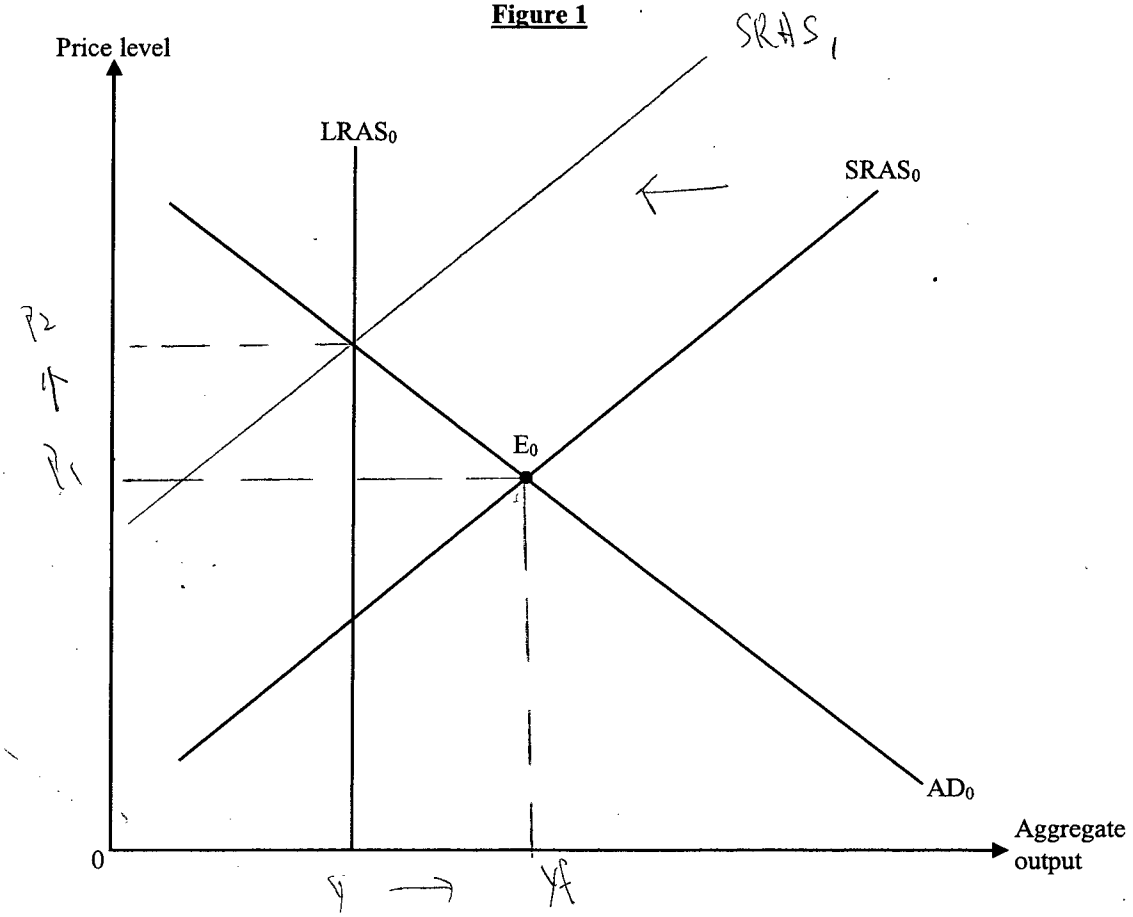
6. Refer to Figure 1.

**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)

SRAS decrease from SRAS0 to SRAS1, shift leftwards.

price increase from P1 to P2

Y ~~increase~~ back to Yf

factor cost increase

cost of production increase

SRAS decreases

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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 (1C | OR | 10 1T |
| Country B | 20 0.5C | OR | 10 2T |

(a) Which good would Country B export according to its comparative advantage? Explain. (3 marks)

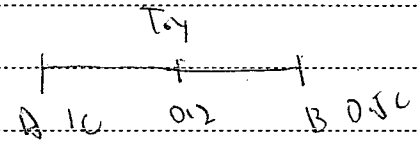
(b) Suppose Country A and Country B trade at an exchange ratio of 5 units of toys to 4 units of cars. A transportation cost of 0.2 units of cars is required to exchange for 1 unit of toys and the cost is equally shared by both countries. Calculate the gain per unit of export of Country B. Show your workings.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

5T = 4C

1T = 0.2C

a) Country B would export Toys, it's has a comparative advantage, # $\frac{10}{20} = 0.5C$, $\frac{20}{10} = 2T$, it's has a lower opportunity cost.

b)

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

| Assets ($million) | | Liabilities ($million) | |
|---|---|---|---|
| Reserves | 1000 | Deposits | 4000 |
| Loans | 3000 | | |

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 = cp + R = 800 + 1000 = $1800 (million)

money supply = cp + D = 800 + 4000 = $4800 (million)

b) After withdraws, old monetary base = $1800

new monetary base = ~~800 + 3300~~ = 800 + 300

= $1100 (million)

The change of monetary base = 1800 − 1100

= $700 million

ii) New money supply = 800 + 3300 = $4100 million

rrr = $\frac{1000}{4000} \times 100\% = 25\%$

∴ max. possible change in money supply = $4100 \times \frac{1}{25\%} = \$16400$ million

**END OF SECTION A**

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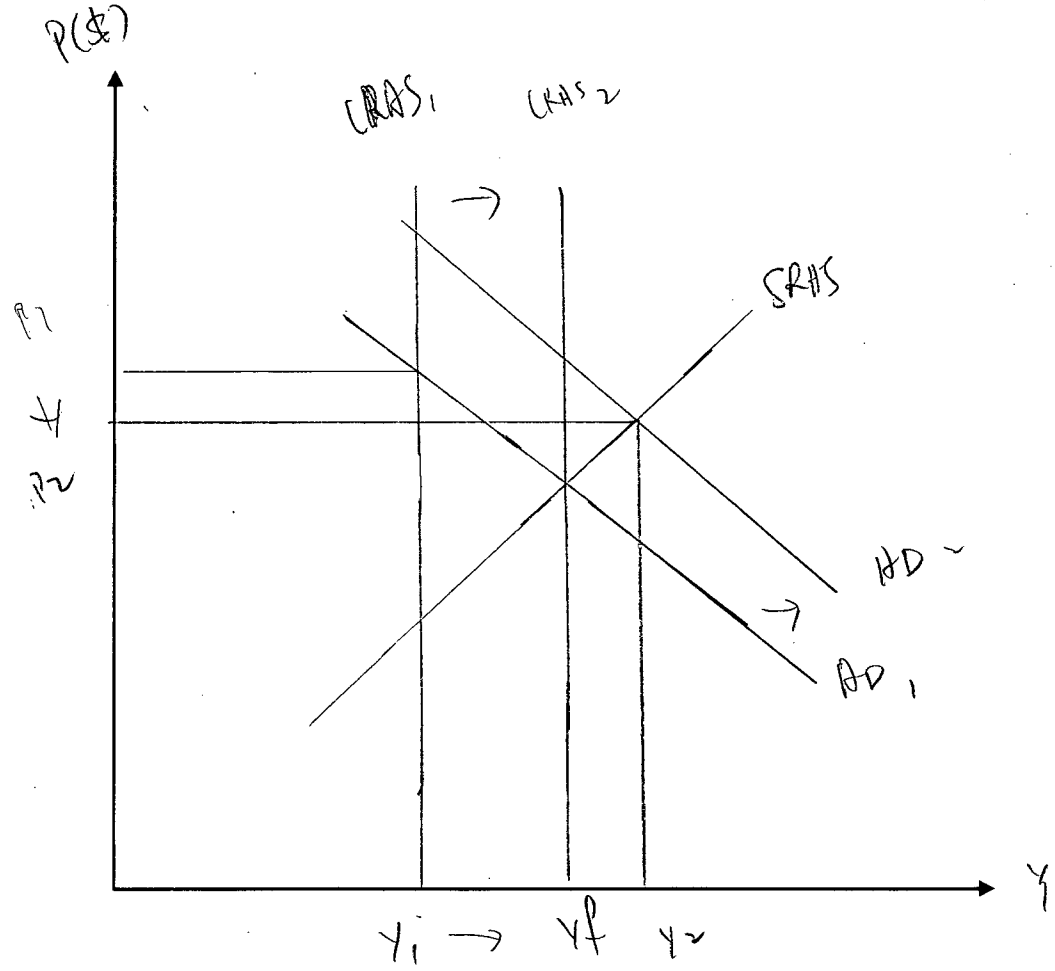
**Section B** (60 marks)

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) owned by government, ~~but~~ although need to disclose the finance information, government won't help ~~to~~ them pay any money.

b) It is expected the infrastructure development can attract more tourists stay longer in Hong Kong, The long run aggregate supply will increase from $LRAS_1$ to $LRAS_2$. AD increase from $AD_1$ to $AD_2$ shift rightwards price ~~to~~ decrease, y ~~to~~ increase to $y_f$.

c) If can vote in AGM
No need to pay a fixed to the shareholders

d)

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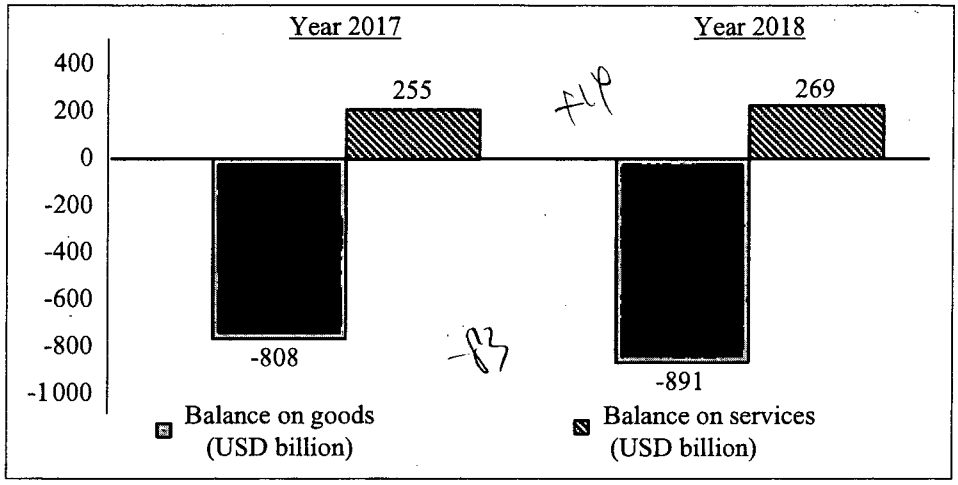
10. The following source shows the current account data of the US in 2017 and 2018.



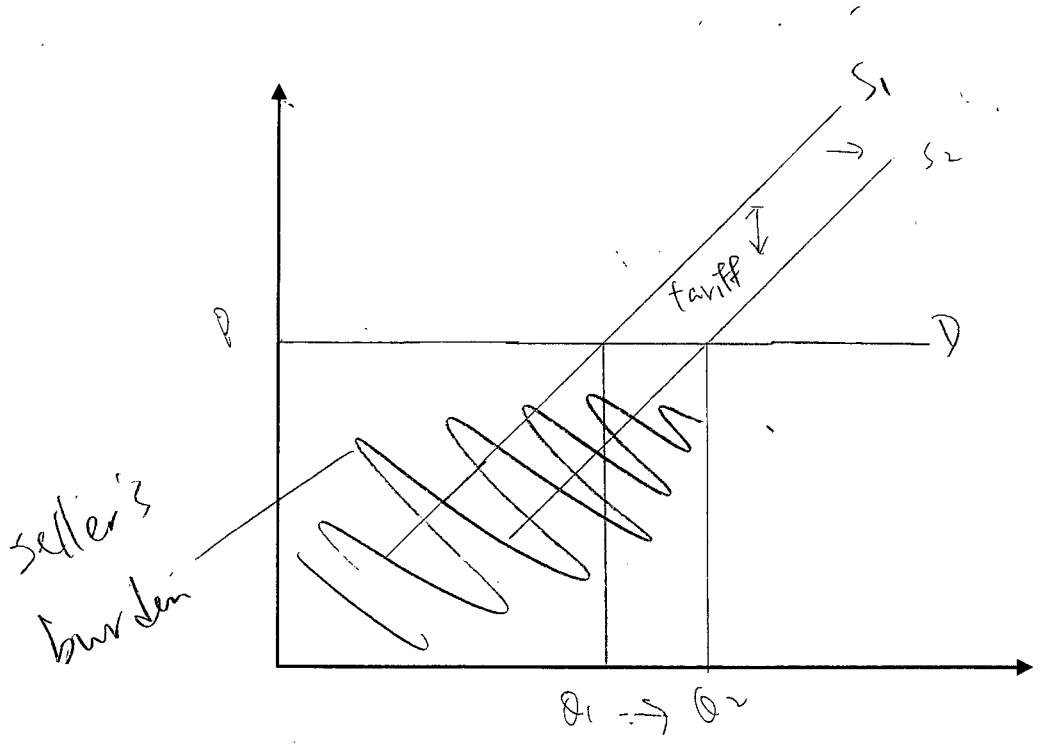

(a) (i) Describe the changes of current account data of the US in the above source. (2 marks)

(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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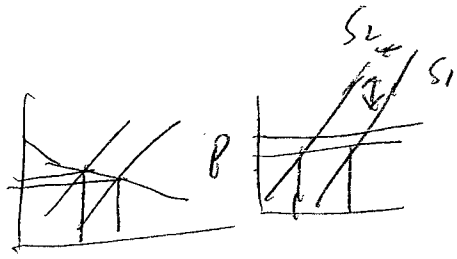
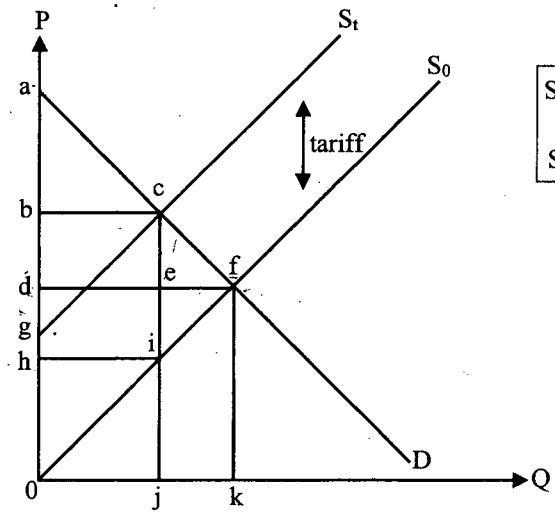



(c) Economists argue that tariff may harm both the consumers and producers.




$S_0$: the supply curve before tariff

$S_t$: the supply curve after tariff

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 ~~dfbk~~ dfgk | Area hio |

(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)

A) In visible trade (goods) it deficit and ~~decrease~~ increase from 2017's -805 to 2018's -891, visible trade (goods) deficit. In Invisible trade (services), it credit ~~from~~ and increase from 2017's 255 to 2018's 260. it credit.

B) No, visible trade increased by 14 < the decreased of Invisible trade, -83, it is deficit in trade. & it haven't count the net factor income from abroad and the current transfer. It may increase of decrease its ~~deficit~~ deficit of current account.

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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 |

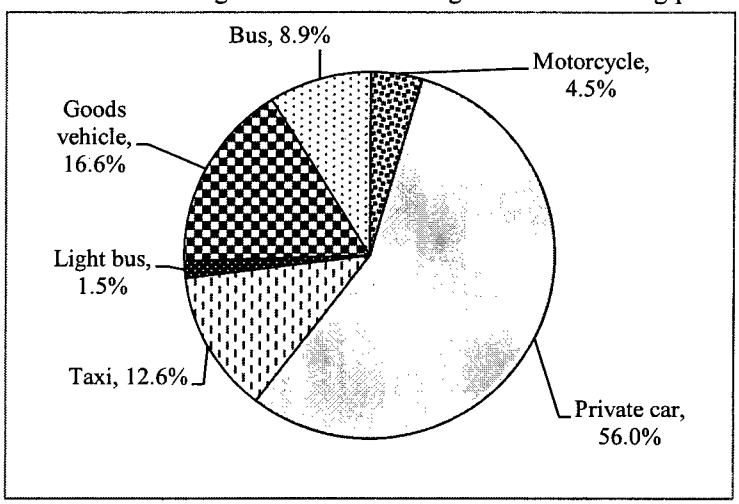
Source B: Traffic information during peak hours of the two tunnels

| | Designed capacity per hour | Actual number per hour | Queue |
|---|---|---|---|
| CHT | 2600 (cars) | 4400-4600 (cars) | 1500-3000 (metres) |
| WHC | 4200 (cars) | 3600-3800 (cars) | 0 (metres) |

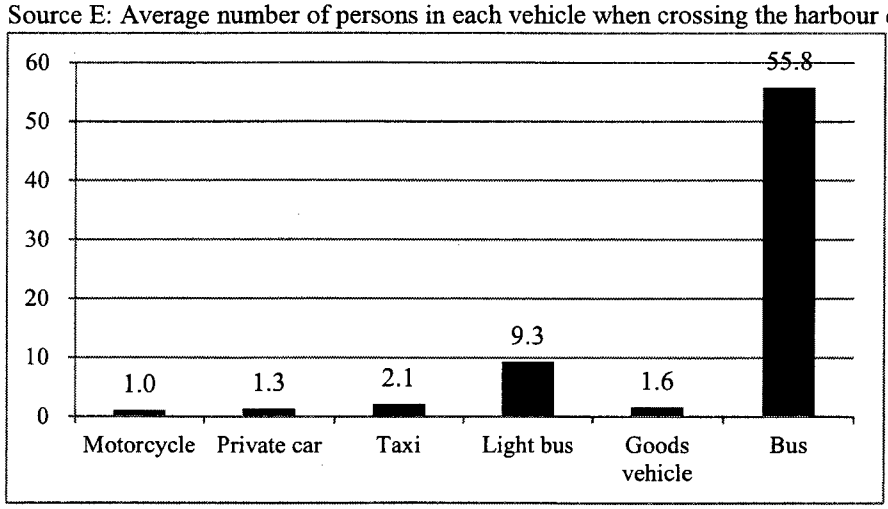
Source C: An extract of a report on traffic congestion

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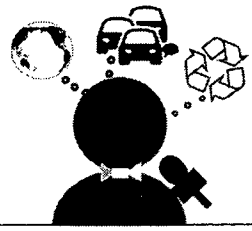
Source F: Views on cross-harbour traffic in Hong Kong

| | |
|---|---|
| A politician | Every citizen needs to travel across the harbour. An increase in tunnel tolls affects everyone, especially the low-income group. |
| A government official | 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. |
| An environmentalist  | 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. |
| A taxi driver | Channeling traffic to the under-utilised WHC benefits every road user and this allows taxi drivers to have more businesses. |

(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.)

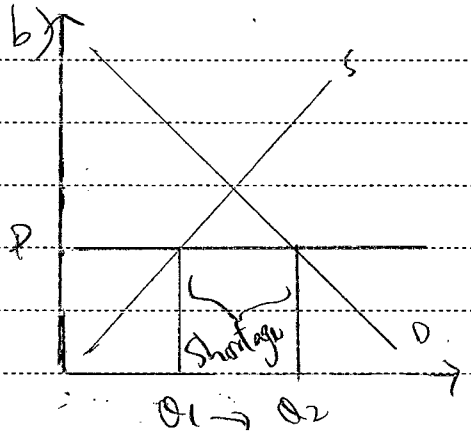
(14 marks)

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

a) Adv = the profit earned by private firm will higher than the government.

Disadv = ~~A private firm~~ Government can set a fixed cost to control the cost of fee but private firm won't.

b)




CHT during peak hour designed capacity per hour was 2600 cars but the actual number per hour was 4400 - 4600 cars. It's actual number is large than expected. The price keep constant and the quantity increased from $Q_1$ to $Q_2$, and shortage is exists.

c) Social cost will increase because of the traffic congestion, need to spend a longer time on journey, is an inconvenience to the ~~social~~ society. The private cost will increase.

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The time of waiting the traffic ~~cong~~ congestion, ~~[illegible]~~ personaly have alternative cost.

(ii)

d) It's because of private cars were the most of the Cars ~~[illegible]~~ crossing the harbour during peak hours, 56.0% but it have a less ~~people~~ numbers of person in those vicehles, it contains 1.3, but the bus contains 55.8 Private cars have the most car but less person, it may affect to the ~~traff~~ traffic congestion.

e) ~~proposal II~~, proposal II, for the owners of WHC company it is will lose ~~there~~ their profits, the cost from, $71 to $20. The profit will gain less from the past. ~~An environmentalist are concerned.~~ A politician concered the income inequality in Hong Kong, Reducing the cost to $20 can help narrow the income gap, helping the low-income group. cost of living ~~decrease~~ increase, use less at the cost. The governmentalist concerned about government revenue and expenditure. The governments has no rights to object to the tolls set by WHC. Reducing the cost of WHC, can let the government profit increase, government expenditure, will increase to have ~~more~~ more business. ~~Beside the~~

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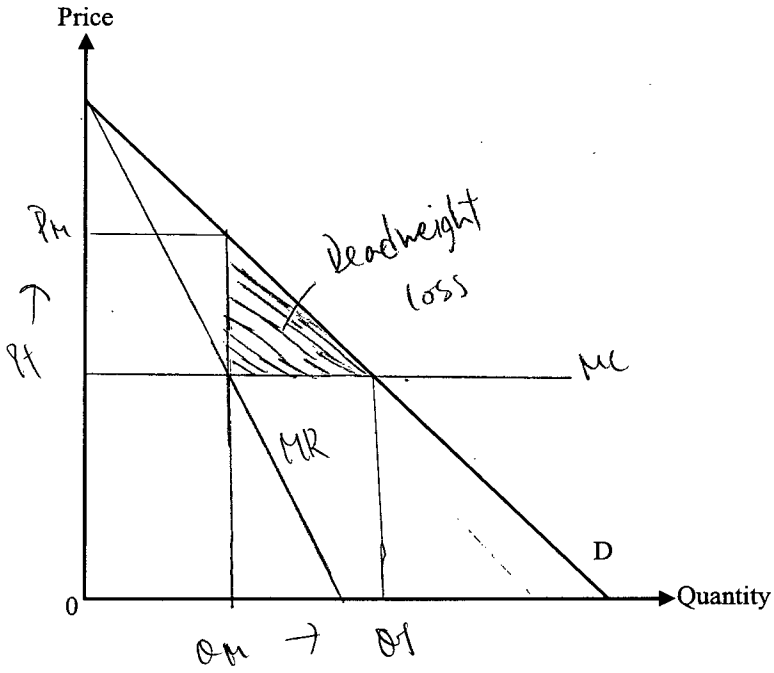
**Section C** (16 marks) Answer any **ONE** question.

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)

c) It's not a price discrimination because it in a not same area, although it have a same product, not same area cost different cost ~~cost~~.

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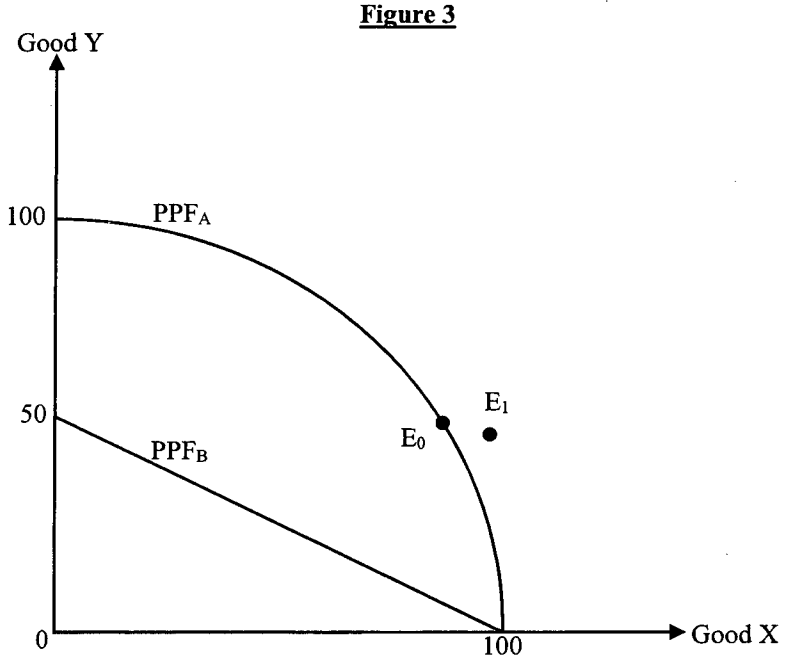
13. Refer to Figure 3. $PPF_A$ and $PPF_B$ are the production possibility frontiers of Country A and Country B respectively. $E_0$ is the consumption point of Country A without trade.

**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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**END OF PAPER**

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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