

Marking Schemes

Paper 1

| Question No. | Key | Question No. | Key |
|--------------|---------|--------------|---------|
| 1. | B (77%) | 26. | A (43%) |
| 2. | B (80%) | 27. | C (53%) |
| 3. | B (49%) | 28. | D (51%) |
| 4. | D (64%) | 29. | A (31%) |
| 5. | C (40%) | 30. | B (70%) |
| 6. | D (42%) | 31. | D (52%) |
| 7. | B (79%) | 32. | A (66%) |
| 8. | B (58%) | 33. | B (36%) |
| 9. | B (68%) | 34. | C (73%) |
| 10. | C (85%) | 35. | B (71%) |
| 11. | A (34%) | 36. | C (56%) |
| 12. | D (39%) | 37. | D (51%) |
| 13. | D (79%) | 38. | A (68%) |
| 14. | A (62%) | 39. | D (67%) |
| 15. | D (63%) | 40. | A (54%) |
| 16. | A (78%) | 41. | C (57%) |
| 17. | D (62%) | 42. | C (71%) |
| 18. | C (87%) | 43. | A (46%) |
| 19. | C (77%) | 44. | A (70%) |
| 20. | C (60%) | 45. | B (69%) |
| 21. | B (60%) | | |
| 22. | D (87%) | | |
| 23. | D (48%) | | |
| 24. | C (68%) | | |
| 25. | A (53%) | | |

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

Paper 2

These documents were prepared for markers' reference. They should not be regarded as sets of model answers. Candidates and teachers who were not involved in the marking process are advised to interpret their contents with care.

The answers provided in the marking scheme are for reference only. They are not the only possible answers. Alternative answers are acceptable so long as they are well reasoned.

The examination emphasises the testing of the understanding of economic theories and the application of the knowledge of economic analysis to practical problems. Candidates are advised to study this document in conjunction with the examiner's comments on candidates' performance in this booklet.

For essay-type questions, candidates are expected to demonstrate an understanding of the question, an ability to deploy relevant knowledge of the subject in response to the questions, and to present their answers logically and coherently.

In questions asking for a specified number of reasons or examples etc. and a candidate gives more than the required number, the extra answers should not be marked. For instance, in a question asking candidates to provide two examples, and if a candidate gives three answers, only the first two should be marked.

The following symbols are used:

- / A single slash indicates an acceptable alternative within an answer.
- @ The number in front of the symbol indicates the marks for each point.
- max Maximum mark for the question/sub-question

Section A

- | | Marks |
|---|----------------|
| 1. Yes. More of free good is not preferred. No one is willing to pay a price/give up resources for getting more free good. | (1) (2) |
| 2. (a) Lateral expansion because the firm expanded its production to related but not competitive products. | (2) |
| (b) <u>Motives:</u> – market/product diversification – economies of scale – use of brand name – any other relevant point [Mark the FIRST TWO points only.] | } @1 Max: 2 |
| (c) <u>Reasons:</u> – share of advertising cost by a larger number of output – bulk purchase of raw materials in production – more extensive division of labour – any other relevant point [Mark the FIRST TWO points only.] | } @1 Max: 2 |
| 3. (a) Recession. | (1) |
| (b) <u>Phenomena:</u> – falling/negative real GDP growth rate OR falling real GDP level – falling inflation rate OR deflation – falling consumption/investment – falling business confidence – any other relevant point [Mark the FIRST TWO points only.] | } @1 Max: 2 |
| (c) <u>Losses caused by unemployment:</u> – loss of output – loss of human capital – political and social unrest – any other relevant point [Mark the FIRST TWO points only.] | } @1 Max: 2 |

4. (a) Inflation rate = $(117 - 110) / 110 \times 100\% = 6.36\%$ Marks
(1)
- (b) Differences:
- CPI only includes consumer goods while GDP deflator includes both consumer goods and producer goods.
 - The computation of CPI is based on a fixed basket of goods (with weights which would only be revised infrequently), while GDP deflator is based on variable baskets of goods (with weights varying from year to year).
 - any other relevant point
- [Mark the FIRST point only.] } @2
Max: 2
- (c) $MV = PY$, where M: money supply, V: velocity of circulation of money, P: price level and Y: output (2)
 Assume V and Y being constant.
 A continuous increase in M (caused by the open market purchase) would result in a continuous increase in P, i.e. inflation. (2)
5. (a) Nominal interest (rate) (1)
 because, while holding money, one has to give up the opportunity to earn interest income by depositing the sum into banks or by using the sum to purchase interest-earning assets like bonds. (1)
- (b) Reasons:
- Not generally accepted as a medium of exchange, as the coupon can only be used in the supermarket chain but not in other shops.
 - Not divisible as the coupon, is difficult to be broken down into smaller units to facilitate exchange of cheaper goods.
 - Not a good store of value, as the coupon becomes worthless in case the supermarket chain closed down.
 - Not durable as banknotes, because the coupon is not waterproof and may be easily damaged.
 - Not a legal tender, as other people may refuse to accept the coupon as payment.
 - any other relevant point
- [Mark the FIRST TWO points only.] } @2
Max: 4

Marks

6. Verbal elaboration:

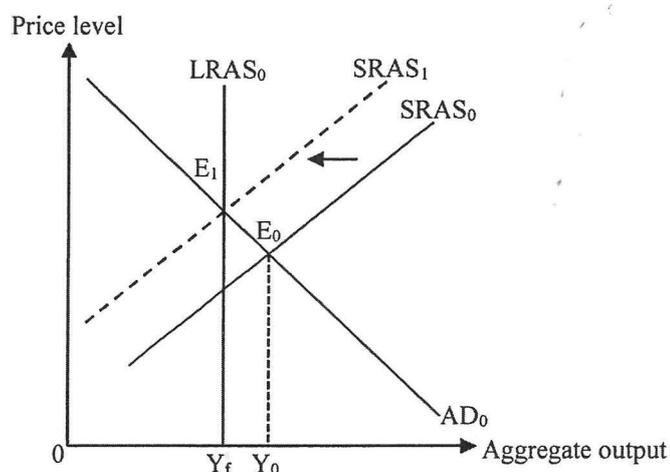
The economy is facing an inflationary (output) gap. There would be an excess demand in the factor market, creating pressure for factor prices to adjust upward. As the costs of production would rise, short run aggregate supply (SRAS) would fall over time, thus restoring output to Y_f in the long run.

(4)

Illustrate in the diagram:

– SRAS shifts leftward

(1)



7. (a) In country A, opportunity cost of producing 1T = 1C (3)
 In country B, opportunity cost of producing 1T = 0.5C
 Country B has a lower opportunity cost in producing T and would therefore export T.

- (b) Terms of Trade: 1T:0.8C (3)
 Gain from trade = $0.8C - 0.5C - 0.2C/2 = 0.2C$

8. (a) Monetary base: \$1000 million + \$800 million = \$1800 million (1)
 Money supply: \$800 million + \$4000 million = \$4800 million (1)

- (b) (i) Change in monetary base = -\$700 million (1)

- (ii) Change in money supply = $(\$300 \text{ million} \times \frac{1}{0.25} + \$800 \text{ million}) - \$4800 \text{ million}$ (3)
 = -\$2800 million

Section B

Marks
(1)

9. (a) Oligopoly.

Features:

- a few dominant sellers
- interdependency of pricing
- price and non-price competitions
- any other relevant point

[Mark the FIRST TWO points only.]

} @1
Max: 2

(b) Verbal elaboration:

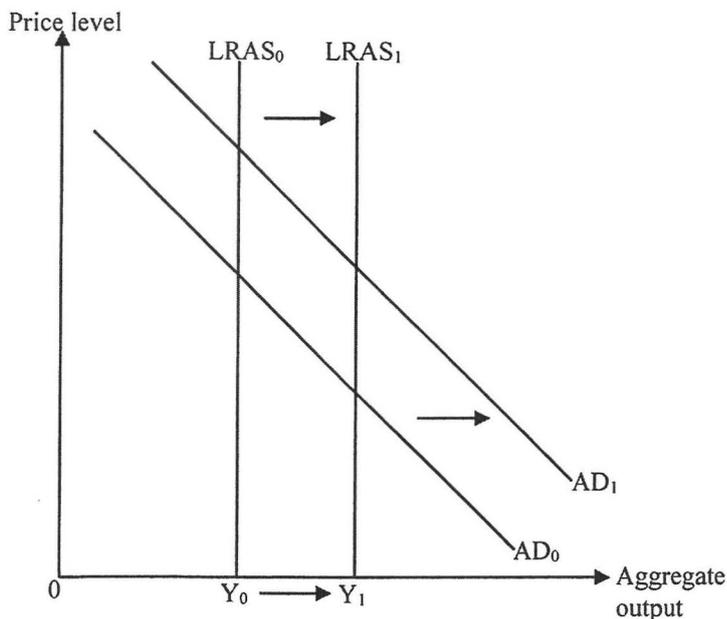
When more tourists stay longer in Hong Kong, the tourist expenditure would increase, implying a rise in export of service. This would lead to an increase in AD. (5)

On the other hand, the infrastructure development would expand the production capacity of the economy in the future, leading to an increase in (future) LRAS.¹

In the long run, aggregate output increases.

Illustrate in the diagram:

- AD shifts to the right (1)
- LRAS shifts to the right (1)
- $Y_1 > Y_0$ (1)



¹ One can also argue that the new hotels and the waterpark may not be able to cause a significant increase in long run aggregate supply, as such development has direct effect only on one single industry, which may be of minor importance relative to the production capacity of the economy as a whole.

| | Marks |
|--|--------------|
| (c) <u>Advantages:</u> | |
| – no interest obligation | (1) |
| – no repayment obligation ² | (1) |
| – any other relevant point | |
| [Mark the FIRST TWO points only.] | |
| | |
| (d) <u>Reasons:</u> | |
| – Not all factor inputs used to build the infrastructure originated from Hong Kong. For example, some raw materials were imported. | (2) |
| – Some of the output might not be produced in 2019. For example, some has been already included as change in inventory/work in progress in previous years. | (2) |
| – any other relevant point | |
| [Mark the FIRST TWO points only.] | |
| | |
| 10. (a) (i) Trade deficit increased while invisible trade surplus slightly increased. | (2) |
| | |
| (ii) No. We also need the information of external factor income flow (i.e. net income from abroad) and current transfers to draw the conclusion. | (2) |

² Under the current arrangement as specified by the Ocean Park Ordinance (Cap. 388), the Ocean Park as a public corporation is not allowed to issue shares to raise capital. But such knowledge is not required to answer this hypothetical question.

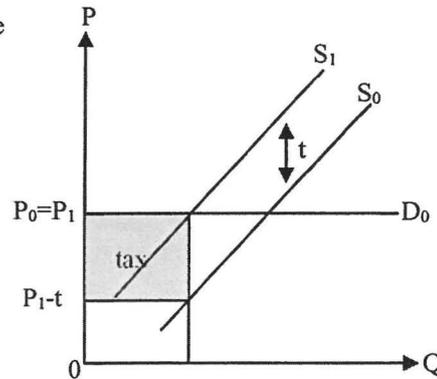
(b) (i) **Condition I: Ed infinite**

Verbal elaboration:

When demand is perfectly elastic, the market price would not increase even after the imposition of tariff. Since a tiny increase in price would drop the quantity demanded to zero, the supplier cannot shift the tax burden to the consumers at all. (2)

Illustrate in the diagram:

- horizontal demand curve
- upward shifting of supply curve



(1)
(1)

OR

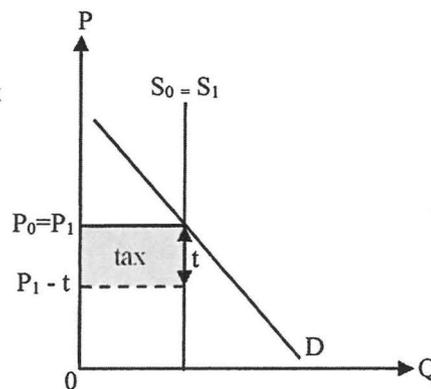
Condition II: Es zero

Verbal elaboration:

When supply is perfectly inelastic, the imposition of tariff would not cause the market price to increase. Given the quantity supplied is fixed, any increase in price would only result in an excess supply. (2)

Illustrate in the diagram:

- vertical supply curves (old and new)
- indication of per unit tax



(1)
(1)

(ii) - correct amount of tax revenue indicated in the corresponding condition. (1)

(c)

| | Before tariff | After tariff |
|--------------------|---------------|--------------|
| Consumers' surplus | - | Area abc |
| Producers' surplus | Area df0 | Area hi0 |

Marks

(3)

(d) Advantage:

- The government can earn the tariff revenue (while the government may not receive the quota rent). (1)

Disadvantage:

- The effect of tariff on import volume depends more on elasticity (while the effect of quota on import volume is certain). (1)

[Mark the FIRST advantage and FIRST disadvantage only.]

Marks

11. (a) Advantages:
- more efficient management
 - easier to recruit experts
 - any other relevant point

} @1
Max: 1

Disadvantages:

- higher toll as private firm aims at profit-maximisation
- less information for future planning
- any other relevant point

} @1
Max: 1

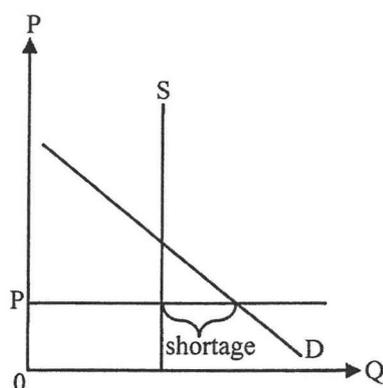
[Mark the FIRST advantage and FIRST disadvantage only.]

- (b) Verbal elaboration:

When the price is set below the equilibrium (i.e., market-clearing) level, there is an excess demand. (2)

Illustrate in the diagram:

- vertical supply curve (1)
- correct position of shortage (1)



- Marks**
- (c) (i) The drivers using the tunnel would have adverse effects on other drivers without paying compensation to the parties being affected. These adverse effects can be viewed as an external cost, which the drivers would not consider when making their driving decisions. (3)
 The example of external cost includes extra time for journey to cater for uncertainty/extra operating cost in the stop-and-go traffic.
- (ii) The above case implies that marginal social cost is larger than marginal social benefit. The tunnel is 'over-used'; the quantity of cars using the tunnel exceed its efficient level. (2)
- (d) Private cars consist of more than half of the tunnel traffic (from Source D) and the average number of persons in the vehicles is very low (from Source E). (2)
- (e) Marks award for effective communication (EC: max 2 marks)

| Marks | Performance |
|-------|--|
| 2 | <ul style="list-style-type: none"> ● Support arguments with the source/data and appropriate economic theories. ● Present relevant material. ● Present well-organised and coherent answers without repetition of ideas. ● Use language that expresses ideas clearly and fluently with appropriate use of words/terms/symbols. |
| 1 | <ul style="list-style-type: none"> ● Present arguments with some support of the source/data and economic theories. ● Present some irrelevant material. ● Present answers in a less organised way with some repetition. ● Use language that conveys a clear message with some inappropriate use of words/terms/symbols. |
| 0 | <ul style="list-style-type: none"> ● Present arguments with no support of the source/data and economic theories. ● Present material unrelated to the gist of the question. ● Present inconsistent arguments. ● Express limited ideas with inappropriate use of words/terms/symbols. |

The maximum marks for content is 12 marks

Answers may include the following:

WHC company:

CHT and WHC are substitutes. A rise in toll of CHT would increase the demand of WHC. With the same toll and higher quantity, the total revenue of WHC must rise. WHC company would prefer Proposal I.

WHC is a private firm who would be profit-maximising when it freely sets its price at \$75. Charging less would yield less profit (unless the government pays a subsidy for it). Therefore, WHC company would NOT prefer Proposal II.

Income inequality:

'Toll-as-regressive-tax' argument: tunnel toll is regressive in nature - although both the rich and the poor pay the same amount of toll, the toll consists of a smaller percentage of the income of the rich than that of the poor. Since an increase in such a regressive 'tax' would worsen the income inequality and Proposal I is NOT preferred, while a decrease of such a regressive 'tax' would improve the income inequality and Proposal II would be preferred.

OR

'Rich-driving-private-cars' argument: Mainly the rich travels with private cars while the poor mainly uses public transport to cross the harbour. So the adjustment of tolls on private cars mainly affects the rich but only have little effect on the poor. It implies that increasing the toll would lead to a more even distribution of income and Proposal I would be preferred.

Government revenue and / or expenditure:

Given the situation with excess demand, the increase in toll for CHT may only reduce the amount of excess demand without changing the quantity transacted, resulting in a higher total revenue. Therefore, Proposal I would be preferred.

If the demand of CHT is inelastic (due to its superior location/lack of substitutes), the increase in toll would lead to an increase in total revenue. Therefore, Proposal I would be preferred.

In order to induce WHC to cut its toll, the government may need to compensate the company for its losses by providing subsidies or tax benefits. As a result, such transfers from the government to WHC would reduce the net revenue of the government.³ Therefore, Proposal II would NOT be preferred.

³ Strictly speaking, such transfers should be treated as negative taxation rather than expenditure.

Taxi drivers:

Since private car trips and taxi trips are substitutes, the increase in toll of private car may lead to an increase in demand for cross-harbour-taxi-trip. As some private car drivers are priced out by the higher toll and there would be fewer vehicles in the tunnels. The overall improvement in traffic condition will induce a higher demand for taxi trips (as trips are faster on average) and the cost of operation will be lowered because of less stop-and-go traffic pattern will be observed. Taxi-drivers would therefore prefer Proposal I.

Environmentalists:

Some private car drivers are priced out by the higher toll and they may switch to public transport which implies more efficient use of tunnels and roads in general. Less congestion also implies less stop-and-go traffic and less air pollution. Environmentalists would thus prefer Proposal I.

(f) Proposal:

- Building a new tunnel: This would solve the overall shortage of cross-harbour capacity.
- Subsidising the use of public transport (MTR/bus/ferry): This may discourage the use of private cars, reducing the number of cars on road.
- Heavier first registration fee on private cars: This may reduce the number of cars on road.

Marks

} @2
Max: 2

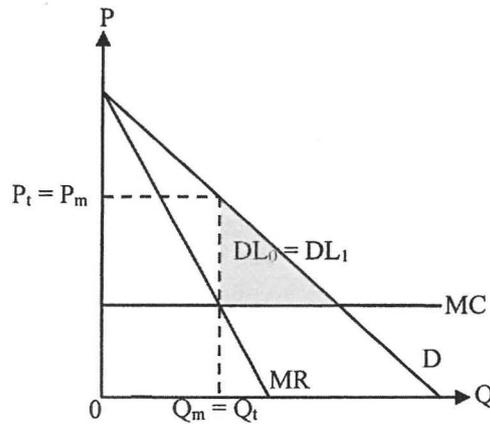
Section C

Marks

12. (a) Verbal elaboration:
 The profit-maximising output is determined by the condition: marginal revenue (MR) = marginal cost (MC). (1)

Illustrate in the diagram:

- horizontal MC (1)
- correct position of MR (1)
- correct position of Q_m and P_m (1)
- correct position of DL (1)



- (b) (i) Illustrate in the diagram:
 - correct position of $P_t (=P_m)$ (1)
 - correct position of $Q_t (=Q_m)$ (1)

- (ii) No, since imposition of the lump-sum tax would not affect either demand or marginal cost, output and deadweight loss would remain unchanged. (2)

- (c) Price discrimination is defined as charging different consumers different prices for the same good produced with same costs. In this case, the production cost may not be the same. The installation cost and maintenance cost for rural area might be higher so it may lead to a higher price. (3)

- (d) (i) Bid-rigging. (2)
 It violated the first conduct rule.

- (ii) Harm:
 - higher price/cost
 - lower quality
 - fewer choices
 - any other relevant point
 [Mark the FIRST TWO points only.]

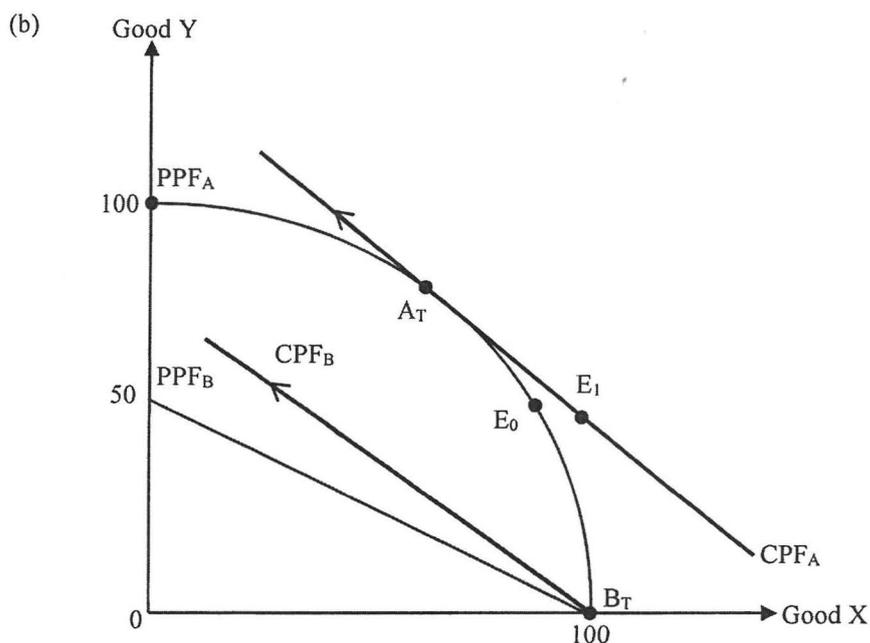
} 1@
 max: 2

Marks

13. (a) The opportunity cost producing 1X in Country A = $1.5Y$
The opportunity cost of producing 1X in Country B = $\frac{50}{100} = 0.5Y$

(3)

Since Country B has a lower opportunity cost of producing good X, it would specialise in producing good X.



Illustrate in the diagram:

- correct position of CPF_A (1)
- correct position of A_T (1)
- correct position of CPF_B (1)
- correct position of B_T (1)

Verbal elaboration:

Terms of trade would be equal to the slope of PPF_A at point A_T (which is the same as the slopes of CPF_A and CPF_B). (1)

Marks

- (c) (i) No. The opportunity cost of producing 1X in Country B would become 1Y, which is still lower than that of Country A.

(2)

(ii) Reasons:

- Artificial intelligence technology could increase the per capita GDP as labour becomes more productive with better technology.
- Artificial intelligence technology may improve medicine production and surgery procedures and improve citizens' average life expectancy.
- Artificial intelligence technology may increase the expected average years of schooling with more effective self-learning software and lower the cost of education in the future.
- any other relevant point

[Mark the FIRST TWO points only.]

} 2@
max: 4

(iii) Factors:

- Subsidise information technology/engineering department in the universities to boost the research and development.
- Provide tax allowances on education to increase the future productivity of labour.
- any other relevant point

[Mark the FIRST TWO points only.]

} 1@
max: 2