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Section A

Answer **one** question from this section.

Microeconomics

1. (a) With reference to demand and supply in competitive markets, explain how the economic question "what to produce" is answered. [10]
- (b) Discuss the consequences of the direct provision of public goods by the government. [15]

2. (a) Explain why firms in oligopolistic markets may prefer to use non-price competition. [10]
- (b) Discuss the reasons why firms compete or collude in oligopolistic markets. [15]

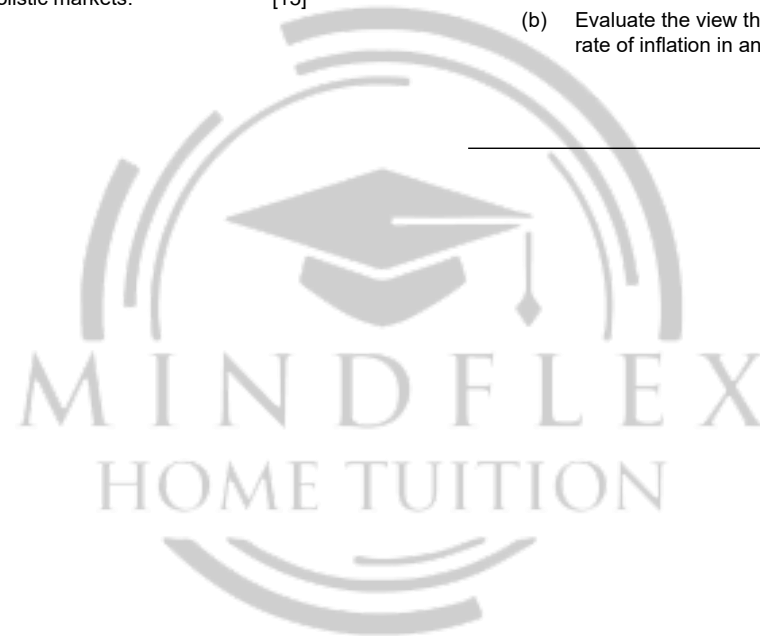
Section B

Answer **one** question from this section.

Macroeconomics

3. (a) Explain why structural unemployment may occur in an economy. [10]
- (b) Discuss the view that the best way to reduce unemployment is through education and training. [15]

4. (a) Explain how short-term fluctuations in the level of economic activity may be evened out through the impact of automatic stabilizers. [10]
- (b) Evaluate the view that the use of fiscal policy is the most effective way of reducing the rate of inflation in an economy. [15]





**Economics
Higher level
Paper 3**

Thursday 2 November 2017 (morning)

1 hour

Candidate session number

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Instructions to candidates

- Write your session number in the boxes above.
- You are permitted access to a calculator for this paper.
- Do not open this examination paper until instructed to do so.
- Answer two questions.
- Answers must be written within the answer boxes provided.
- Unless otherwise stated in the question, all numerical answers must be given exactly or correct to two decimal places.
- You must show all your working.
- The maximum mark for this examination paper is **[50 marks]**.

Answer **two** questions. Each question is worth [25 marks]. Answers must be written within the answer boxes provided.

1. The demand for a product in a perfectly competitive market is given by the function

$$Q_d = 64 - 2P$$

while market supply is given by the function

$$Q_s = 4P - 8$$

where P is the price per unit in dollars (\$), Q_d is the monthly quantity demanded and Q_s is the monthly quantity supplied in thousands of units.

(a) (i) State **one** characteristic of a perfectly competitive market. [1]

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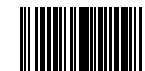
(ii) Outline the reason why the coefficient of price in the supply function above is positive. [2]

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(b) Calculate the equilibrium price **and** the equilibrium quantity in this market. [2]

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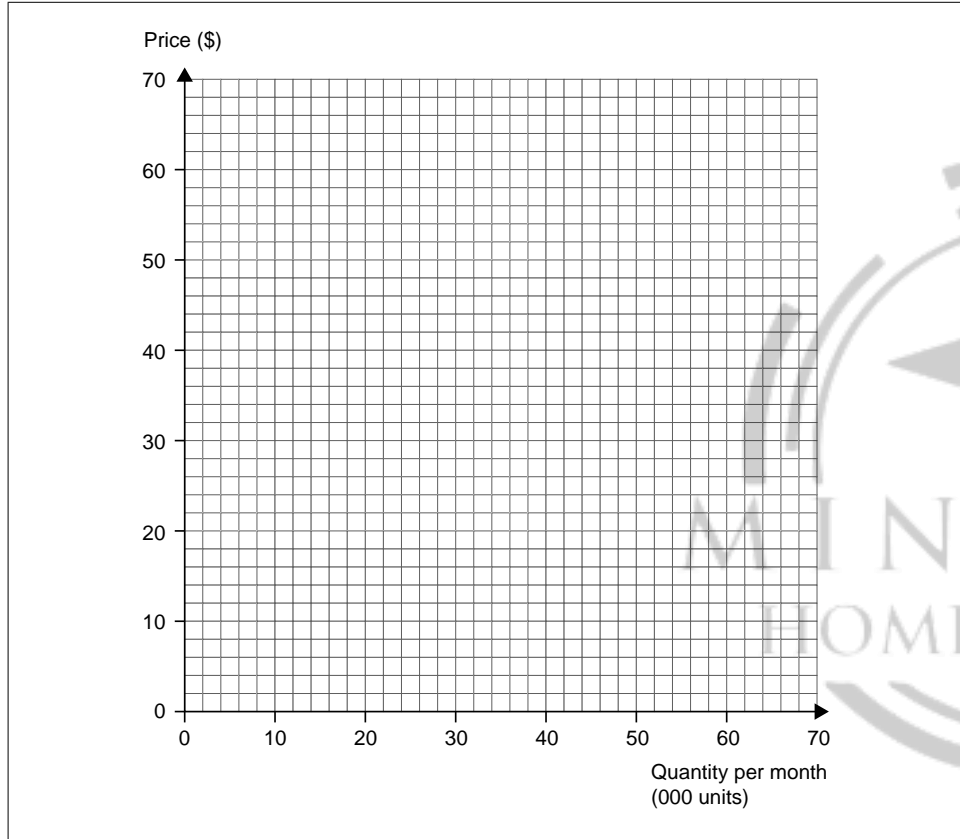
(This question continues on the following page)



(Question 1 continued)

(c) Using the functions, plot the following in the grid below:

- (i) a fully labelled market demand curve. [1]
- (ii) a fully labelled market supply curve. [1]



(This question continues on the following page)

(Question 1 continued)

- (d) Using an appropriate example, explain the significance of price elasticity of demand in relation to the size of the tax revenues a government collects following the imposition of an indirect tax. [4]

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In order to reduce consumption of the product, the government is considering the imposition of an indirect tax. Following the imposition of the indirect tax, the supply of the product will now be given by the function

$$Q_s = 3P - 8$$

- (e) (i) State the type of indirect tax under consideration. [1]

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- (ii) Outline the reason for your answer to part (e)(i). [2]

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(This question continues on the following page)



20EP03



20EP04

(Question 1 continued)

- (f) (i) The government decides to impose a \$3 per unit tax on this perfectly competitive market. Plot and label the market supply curve following the imposition of this tax in the grid on **page 3**. [1]
- (ii) Calculate the resulting consumer expenditure **and** producer revenue **and** government tax revenue following the imposition of the \$3 per unit tax. [3]

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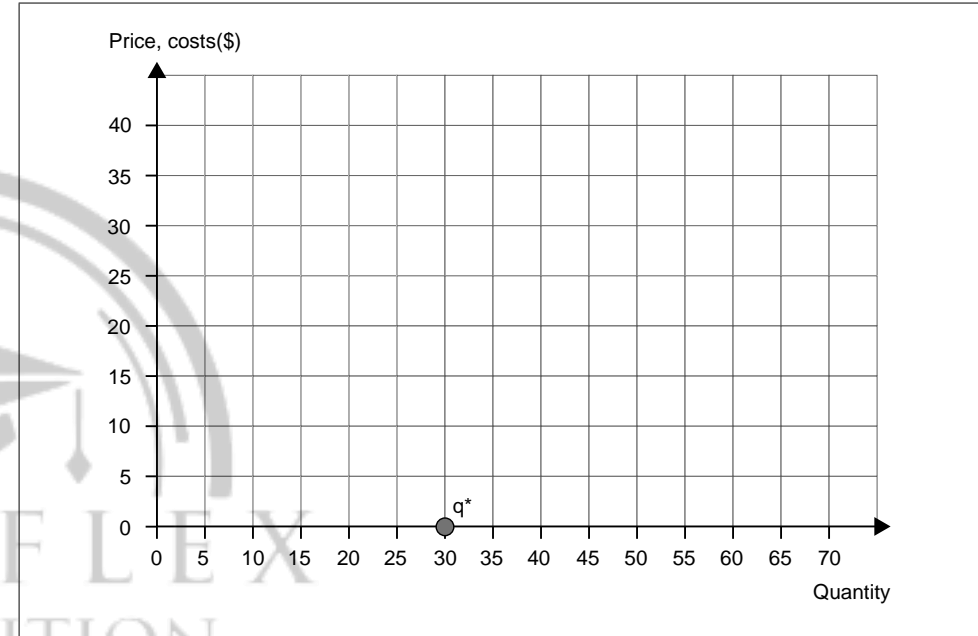
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(Question 1 continued)

The questions below refer to a different perfectly competitive market.

- (g) (i) In the following grid, sketch an appropriate marginal cost (MC) curve, if q^* is the profit maximizing level of output for a perfectly competitive firm and the market determined price for the good is \$20 per unit. [1]



- (ii) In the grid above, sketch an average total cost (ATC) curve that would result in economic losses for this firm. [1]

(This question continues on the following page)



20EP05



20EP06

(Question 1 continued)

- (h) If a perfectly competitive firm aiming at profit maximization is producing at a level of output for which marginal revenue (MR) > marginal cost (MC), state what action the firm should take with respect to its level of output. [1]

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- (i) Using an appropriate diagram, explain when a loss-making perfectly competitive firm will shut down in the short run. [4]

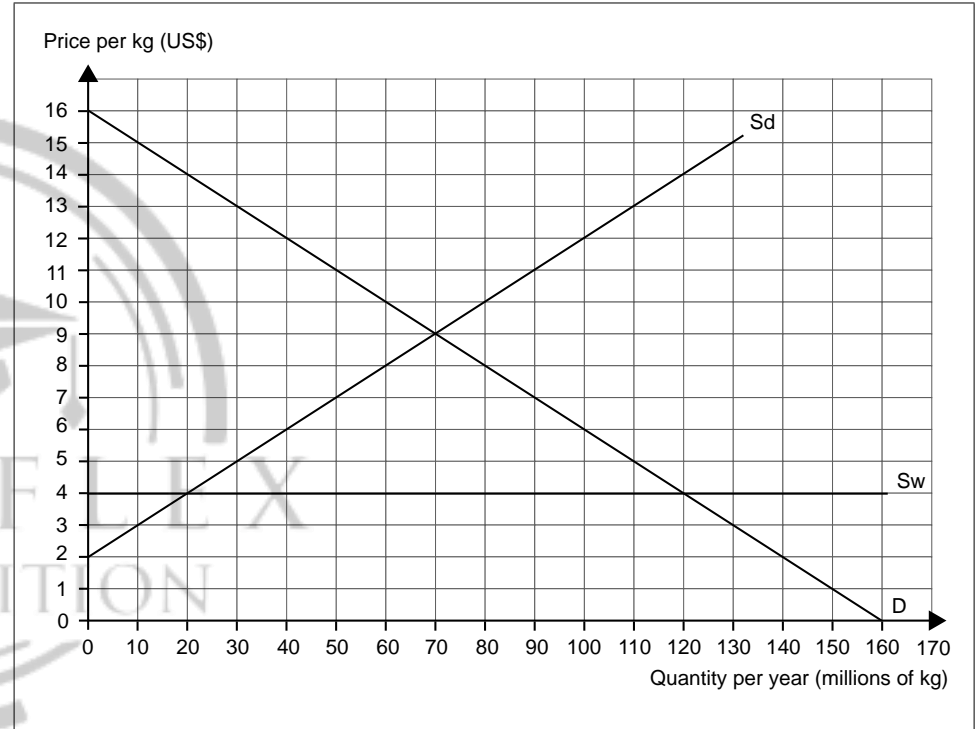


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2. Quinoa is an agricultural product traded in world markets and priced in US dollars (US\$). It is produced in many countries.

Farmers in Fairsea, a small island open economy, produce quinoa. The following diagram illustrates demand (D) and supply conditions for quinoa in Fairsea, where S_d is domestic supply and S_w is world supply.

There are no restrictions on free trade and the world price of quinoa is initially at US\$4 per kilogram (kg). A portion of Fairsea's quinoa requirements are imported.



- (a) Calculate the annual import expenditure on quinoa under free trade. [2]

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(This question continues on the following page)



20EP07



20EP08

(Question 2 continued)

(b) (i) Define the term *consumer surplus*. [2]

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(ii) Calculate the size of the consumer surplus under free trade. [2]

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The government of Fairsea decides to impose a quota on quinoa imports to assist its quinoa farmers. The quota is set at 50% of the initial annual volume of quinoa imports into Fairsea.

(c) (i) Explain **one** way in which the effect of imposing a tariff is likely to be different from that of imposing a quota. [2]

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(ii) On the diagram on **page 8**, draw and label Fairsea's new quinoa supply curve following the introduction of the quota. [1]

(iii) Determine the new equilibrium price of quinoa in Fairsea. [1]

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(Question 2 continued)

(d) Using the diagram, explain **two** benefits enjoyed by Fairsea farmers following the introduction of the quota. [4]

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20EP09



20EP10

(Question 2 continued)

The currency of Fairsea is the Fairsea dinar (FD). The current exchange rate between the Fairsea dinar and the US dollar (US\$) is

$$\text{US\$1.00} = \text{FD0.35}$$

while the current exchange rate between the US dollar and the euro (€) is

$$\text{€1.00} = \text{US\$1.12}$$

- (e) (i) Given the above exchange rates, calculate the current exchange rate between the euro and the Fairsea dinar. [2]

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Answers written on this page
will not be marked.

- (ii) Using your answers to part (b)(ii) and (c)(ii), calculate in Fairsea dinars the change in the consumer surplus following the introduction of the quota. [3]

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- (iii) Calculate the change in export revenues of foreign farmers (in US dollars) following the introduction of the quota, assuming that they sell their quinoa at the new Fairsea market price. [2]

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(This question continues on page 13)



20EP11



20EP12

(Question 3 continued)

The following data relate to Country X for 2011 to 2015.

Table 2

| Year | Nominal GDP (\$ million) | GDP deflator | Real GDP |
|------|--------------------------|--------------|----------|
| 2011 | 4620 | 90.95 | |
| 2012 | 4865 | 91.61 | |
| 2013 | 5100 | 94.32 | |
| 2014 | 5730 | 100.00 | |
| 2015 | 6000 | 101.23 | |

- (c) (i) Calculate real GDP for Country X for 2012 **and** 2013. Enter your answers in **Table 2**. [2]

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- (ii) Using your answers to part (c)(i), calculate the rate of economic growth for 2013. [2]

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(Question 3 continued)

- (d) (i) Outline the likely effects on a country's balance of trade of a high rate of economic growth. [2]

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- (ii) Apart from the effect on the balance of trade, state **one other** possible consequence for Country X of a high rate of economic growth. [1]

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(This question continues on the following page)



20EP15



20EP16

(Question 3 continued)

The government of Country X is concerned about the distribution of income in the country, and would like to make it more equitable. The following table illustrates the amount of tax paid per year at different levels of income.

Table 3

| Income per year (\$) | Tax paid per year (\$) |
|----------------------|------------------------|
| 20 000 | 4350 |
| 40 000 | 8100 |
| 60 000 | 11 570 |

- (e) (i) A politician in Country X has stated that "Our tax system is inequitable as it is regressive". Explain this statement using the data in **Table 3**.

[4]

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- (ii) Apart from taxation, state **two other** measures which could be taken by a government to make the distribution of income more equitable.

[2]

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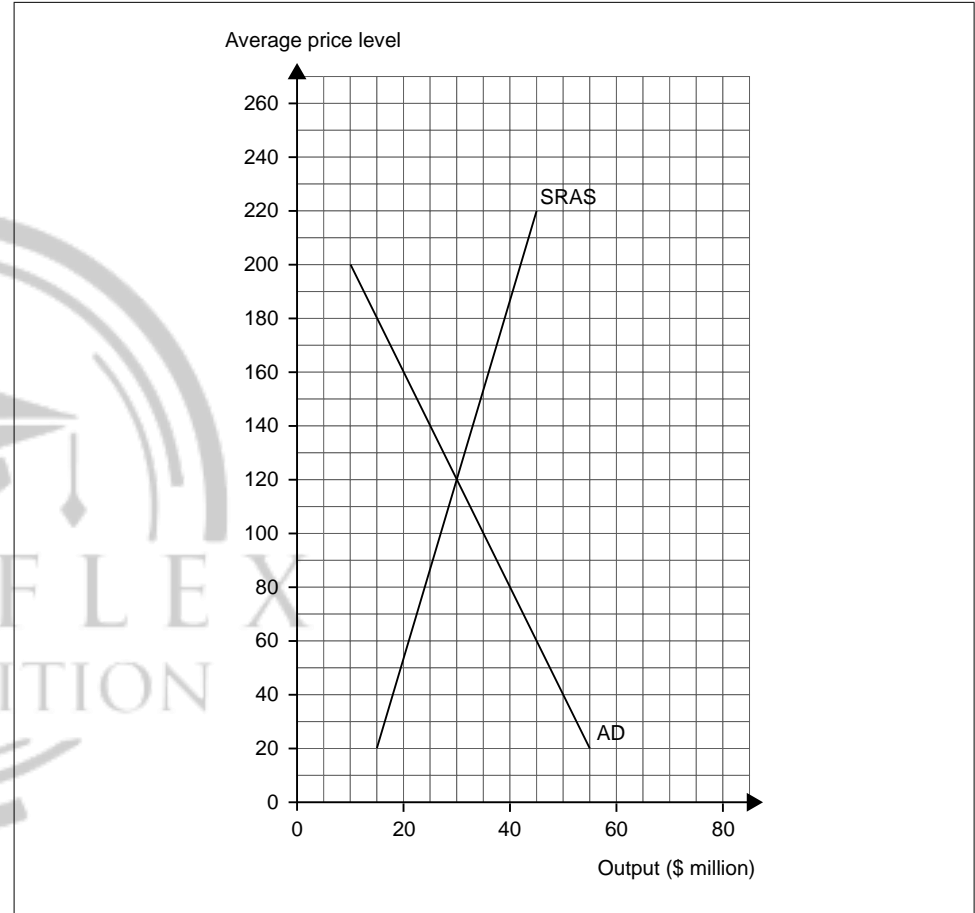
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(Question 3 continued)

A neighbouring country, Country Y, is currently in a position of long-run equilibrium (assuming a monetarist/new classical model). The following diagram illustrates the aggregate demand (AD) and short-run aggregate supply (SRAS) curves for Country Y.



(This question continues on the following page)



20EP17



20EP18

(Question 3 continued)

An increase in consumer confidence has caused aggregate demand to increase by \$25 million.

- (f) (i) On the diagram on **page 18**, draw and label the new aggregate demand curve. [1]
- (ii) Determine the average price level once the economy has returned to a position of long-run equilibrium. [1]

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- (iii) Explain how the economy would move back to this position of long-run equilibrium. [4]

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The government of Country Y has announced its intention to introduce incentive-related supply-side policies.

- (g) Outline how **one** incentive-related supply-side policy would help to boost aggregate supply. [2]

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20EP19



20EP20