



22145107

**ECONOMICS
HIGHER LEVEL
PAPER 3**

Candidate session number

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Tuesday 6 May 2014 (morning)

Examination code

1 hour

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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 in the 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]*.



20EP01

Answer **two** questions. Each question is worth **[25 marks]**. Write your answers in the boxes provided.

1. The following table presents national income statistics for selected variables related to Country Z for 2012 and is expressed in millions of dollars.

National Income Statistics	\$ (million)
Government spending on goods and services	3300
Wages and salaries	6900
Investment spending	1020
Consumer spending	6520
Direct taxation	4150
Exports	2295
Profits of companies	5475
Imports	2450

- (a) Calculate the gross domestic product (GDP) for Country Z in 2012. [2]

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- (b) The population of country Z is 420 000. Calculate per capita GDP for Country Z in 2012. [2]

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(Question 1 continued)

- (c) Countries may calculate GDP using the output approach, the income approach or the expenditure approach. Outline the difference between the expenditure approach and the income approach. [2]

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- (d) Economists have suggested that it is important to calculate “green GDP”. Outline the meaning of the term “green GDP”. [2]

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- (e) In Country Z, for each additional \$1 of income earned, 4 cents (\$0.04) is saved, 15 cents (\$0.15) is taken as tax and 6 cents (\$0.06) is spent on imported goods and services. Calculate the value of the multiplier in Country Z. [2]

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(Question 1 continued)

- (f) (i) The government of Country Z intends to increase government spending in order to increase GDP by \$950 million. Using your answer to (e), calculate the increase in government spending needed to bring about the desired change in GDP. [2]

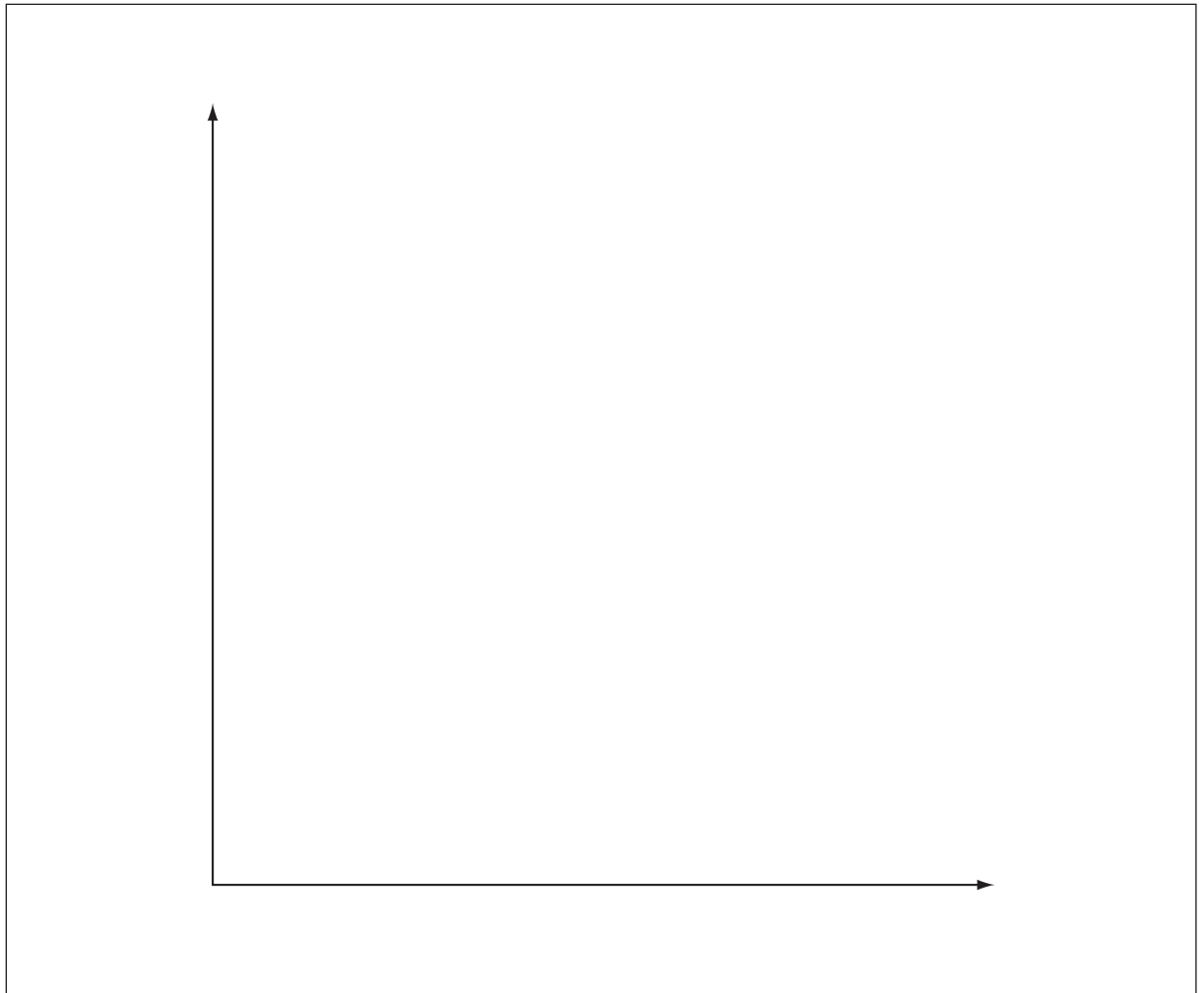
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- (ii) Sketch an AD/AS diagram to show the impact of the multiplier. [3]



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(Question 1 continued)

- (g) Explain the multiplier process which causes the final increase in GDP to be different from the initial increase in government spending. [4]

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- (h) Of the 420 000 people living in Country Z, 260 000 are either working or actively seeking work. The official unemployment figure is 66 000.

- (i) Calculate the rate of unemployment in Country Z. [2]

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(Question 1 continued)

- (ii) Explain **two** difficulties economists face when they try to measure unemployment accurately. [4]

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20EP07

Turn over

(Question 2 continued)

- (ii) The increase in domestic production per year resulting from the tariff. [1]

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- (iii) The decrease in domestic consumption per year resulting from the tariff. [1]

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- (iv) The tariff revenues collected per year by the government of Country A. [1]

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- (b) List **two** other trade barriers that the government of Country A could have adopted instead of imposing a tariff. [2]

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(Question 2 continued)

- (c) (i) Calculate the change in revenue earned by the domestic corn producers following the tariff. [3]

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- (ii) Using your answer to (c)(i), calculate the percentage change in the revenue of domestic corn producers. [1]

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- (d) (i) Calculate the change in revenue earned by foreign corn producers because of the tariff. [3]

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(Question 2 continued)

- (ii) Using your answer to (d)(i), calculate the percentage change in the revenue earned by foreign corn producers. [1]

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- (e) State **one** reason why governments may decide to impose a tariff. [1]

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- (f) (i) Explain **two** disadvantages of trade protection. [4]

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(Question 2 continued)

- (ii) Calculate the decrease in the consumer surplus resulting from the imposition of the tariff. [2]

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- (g) Explain why the welfare loss resulting from the corn tariff is smaller than the loss of consumer surplus. [4]

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3. (a) In Country X, the monthly demand for butter is given by the function

$$Q_D = 884 - 6P$$

while the monthly supply of butter is given by the function

$$Q_S = 744 + 4P$$

where price is in dollars (\$) and quantity is in thousands of kilograms (kg) of butter per month.

(i) Calculate the equilibrium price of butter in Country X. [2]

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(ii) Calculate the equilibrium quantity per month of butter in Country X. [2]

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Assume that incomes in Country X increase. As a result the demand for butter increases by 10 000 kg per month at each price.

(b) State the new equation for demand. [1]

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(Question 3 continued)

- (c) (i) Assume that the supply changes from
 $Q_s = 744 + 4P$

to

$$Q_s = 744 + 5P$$

Outline how this change will affect the steepness of the supply curve.

[2]

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- (ii) Assume now that the supply changes from
 $Q_s = 744 + 4P$

to

$$Q_s = 544 + 4P$$

Outline why this change will affect the position of the supply curve.

[2]

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- (d) (i) Define the term *price elasticity of supply (PES)*.

[2]

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(Question 3 continued)

- (ii) The increase in demand of 10 000 kg per month (see 3.(b)) has led to a new equilibrium price of \$15 and a new equilibrium quantity of 804 000 kg butter.

Calculate the PES for butter between the original and the new market price. [2]

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- (e) Explain **two** factors that determine the PES of a product. [4]

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(Question 3 continued)

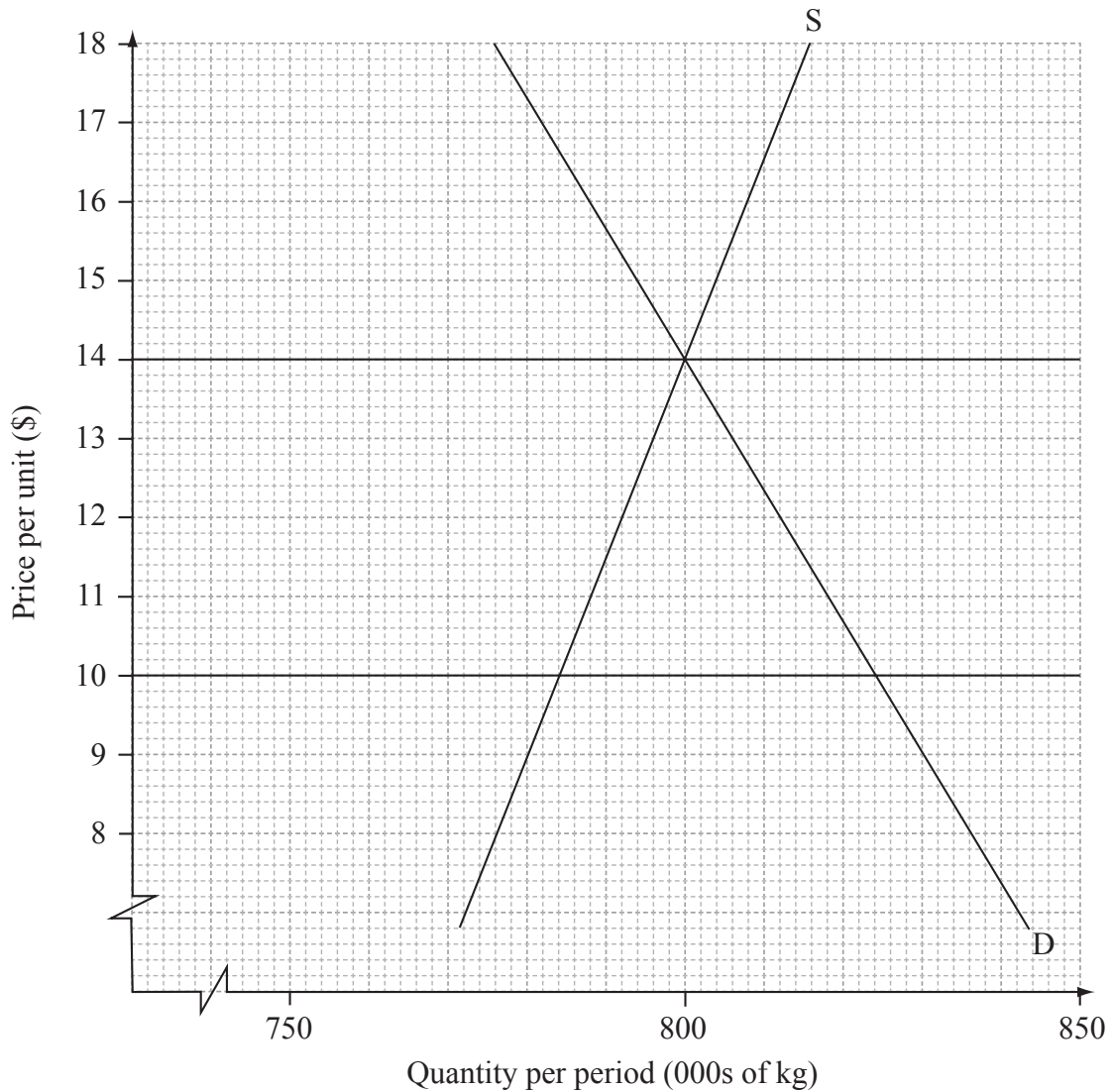
Using the original demand and supply functions

$$Q_D = 884 - 6P$$

and

$$Q_S = 744 + 4P$$

assume that the government has decided to set a price ceiling of \$10. The following diagram illustrates the resulting market outcome.



(f) Calculate the resulting shortage.

[1]

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(Question 3 continued)

- (g) Calculate the change in consumer expenditure on butter per month resulting from the imposition of the price ceiling. [3]

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- (h) Explain **two** consequences on consumers of butter if a price ceiling (maximum price) is imposed. [4]

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