M14/3/ECONO/HP3/ENG/TZ0/XX

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ECONOMICS
HIGHER LEVEL
PAPER 3

Candidate session number

Tuesday 6 May 2014 (morning)

1 hour

Examination code

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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]*.

17 pages

*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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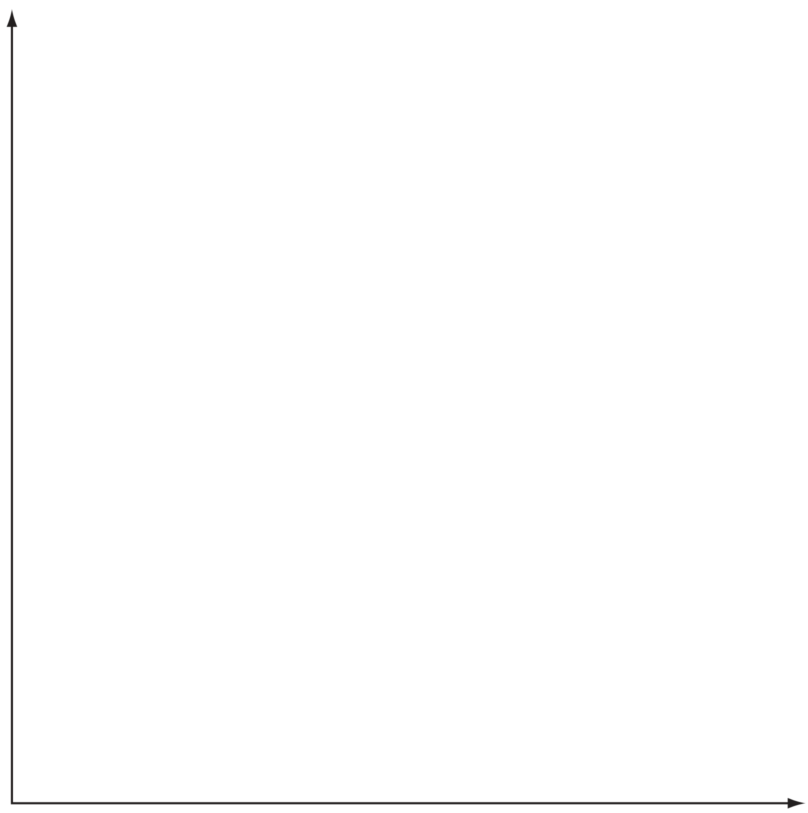
(Question 1 continued)

(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]*

(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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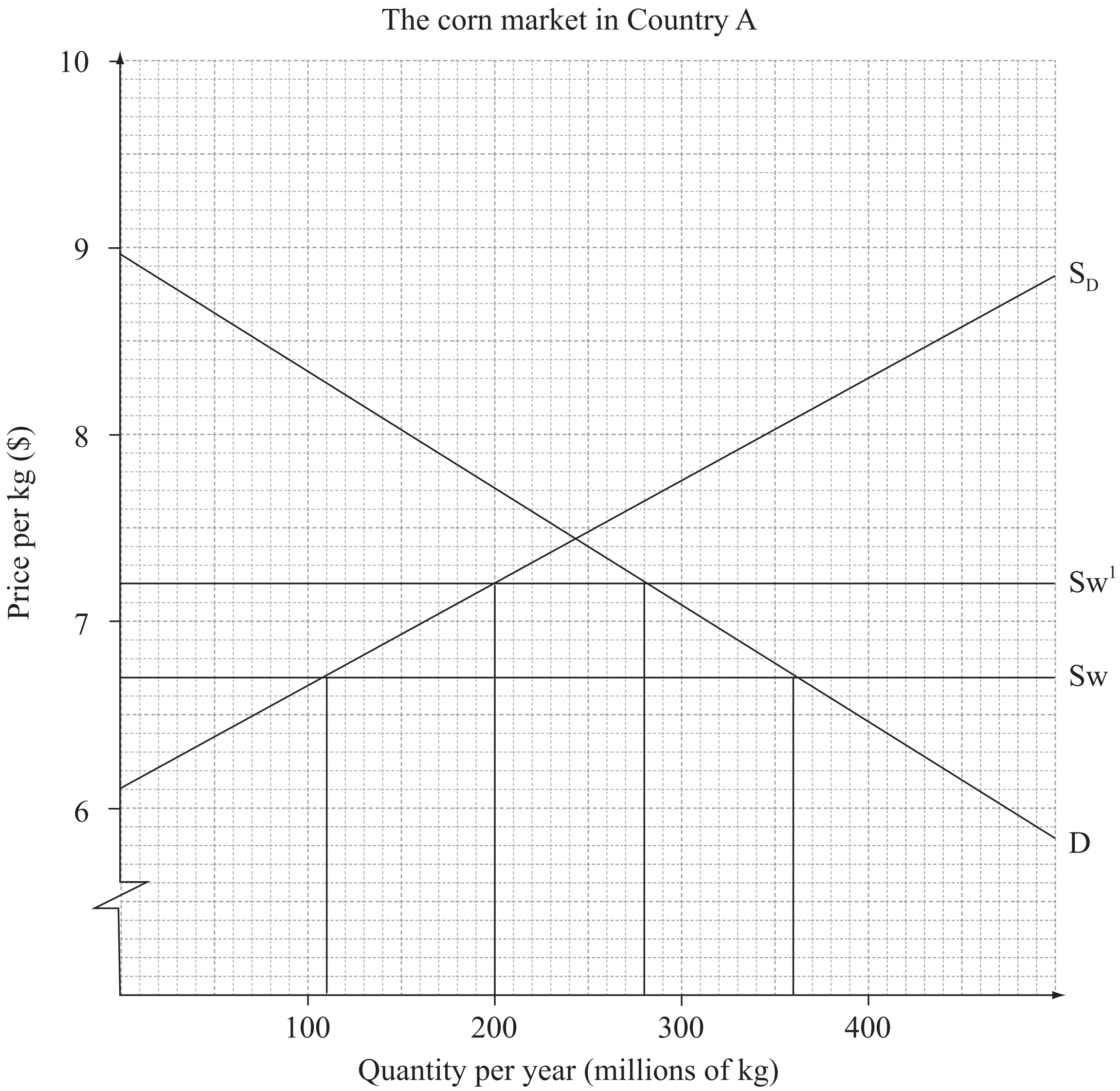
will not be marked.

2. The following diagram illustrates the market for corn in Country A where the price of corn is initially at the world price of \$6.70 per kilogram (kg) and a portion of the country's corn requirements are met through imports. The government of Country A decides to impose a tariff on imported corn. The effects are shown on the diagram.



(a) Determine the following:

(i) Size of the tariff per kg. *[1]*

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(This question continues on the following page)

(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)

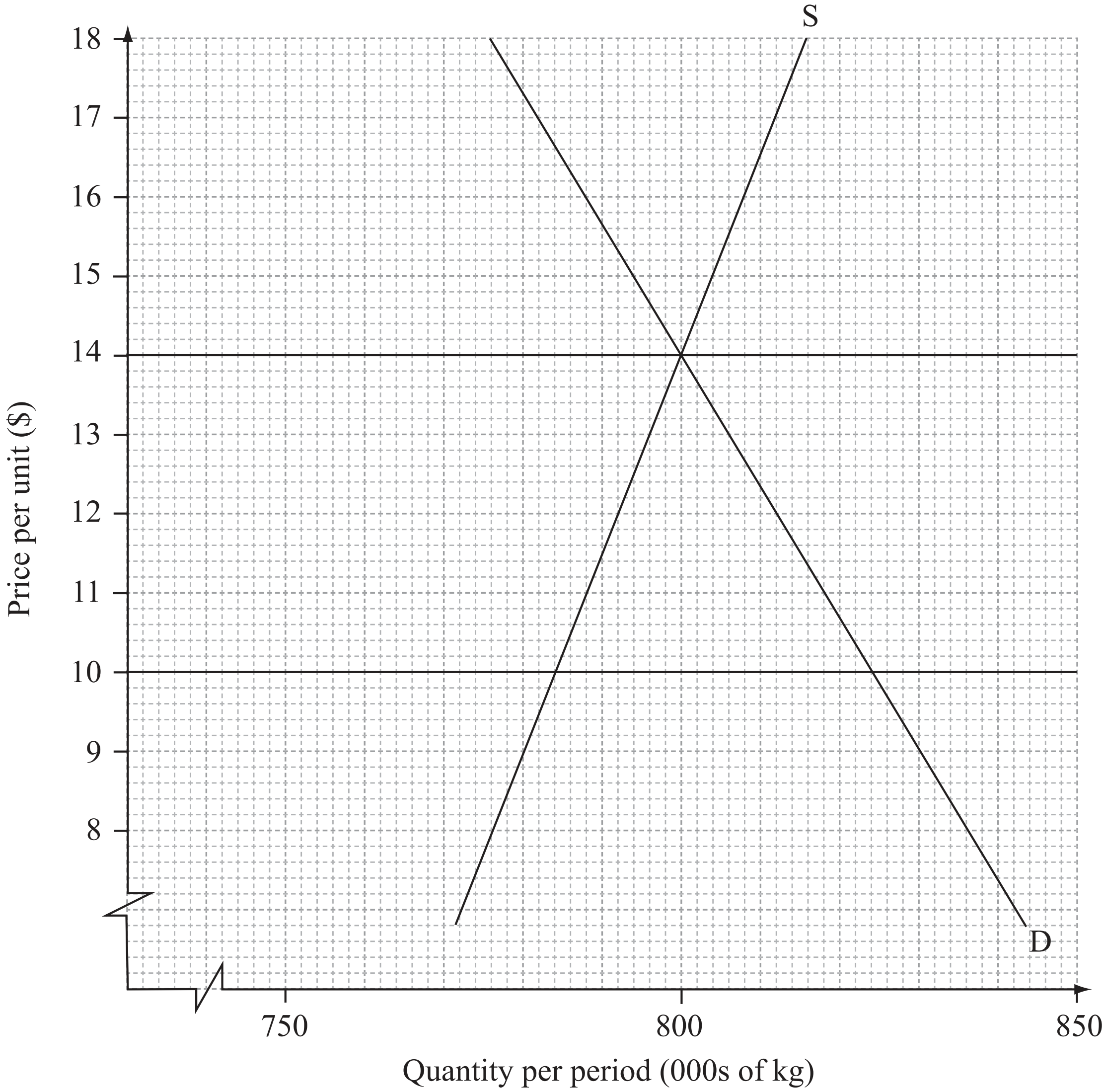
Using the original demand and supply functions

$$Q_D = 884 - 6P$$

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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