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ECONOMICS
HIGHER LEVEL
PAPER 3

Candidate session number

Wednesday 5 November 2014 (morning)

1 hour

Examination code

8 8 1 4 – 5 1 0 7

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]*.

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

1. The following table shows the amount of wheat and rice which could be produced in Country A and Country B with a given quantity of labour. Assume that wheat and rice are the only two products produced in these countries and that labour is the only resource necessary.

Country	Wheat (kg)	Rice (kg)
Country A	100	80
Country B	200	100

(a) From the data provided, calculate

(i) the opportunity cost of producing each kilogram of wheat in Country A; *[1]*

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(ii) the opportunity cost of producing each kilogram of rice in Country A; *[1]*

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(iii) the opportunity cost of producing each kilogram of wheat in Country B; *[1]*

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(Question 1 continued)

(iv) the opportunity cost of producing each kilogram of rice in Country B. *[1]*

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(b) From your answers to part (a), identify which country holds a comparative advantage

(i) in wheat; *[1]*

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(ii) in rice. *[1]*

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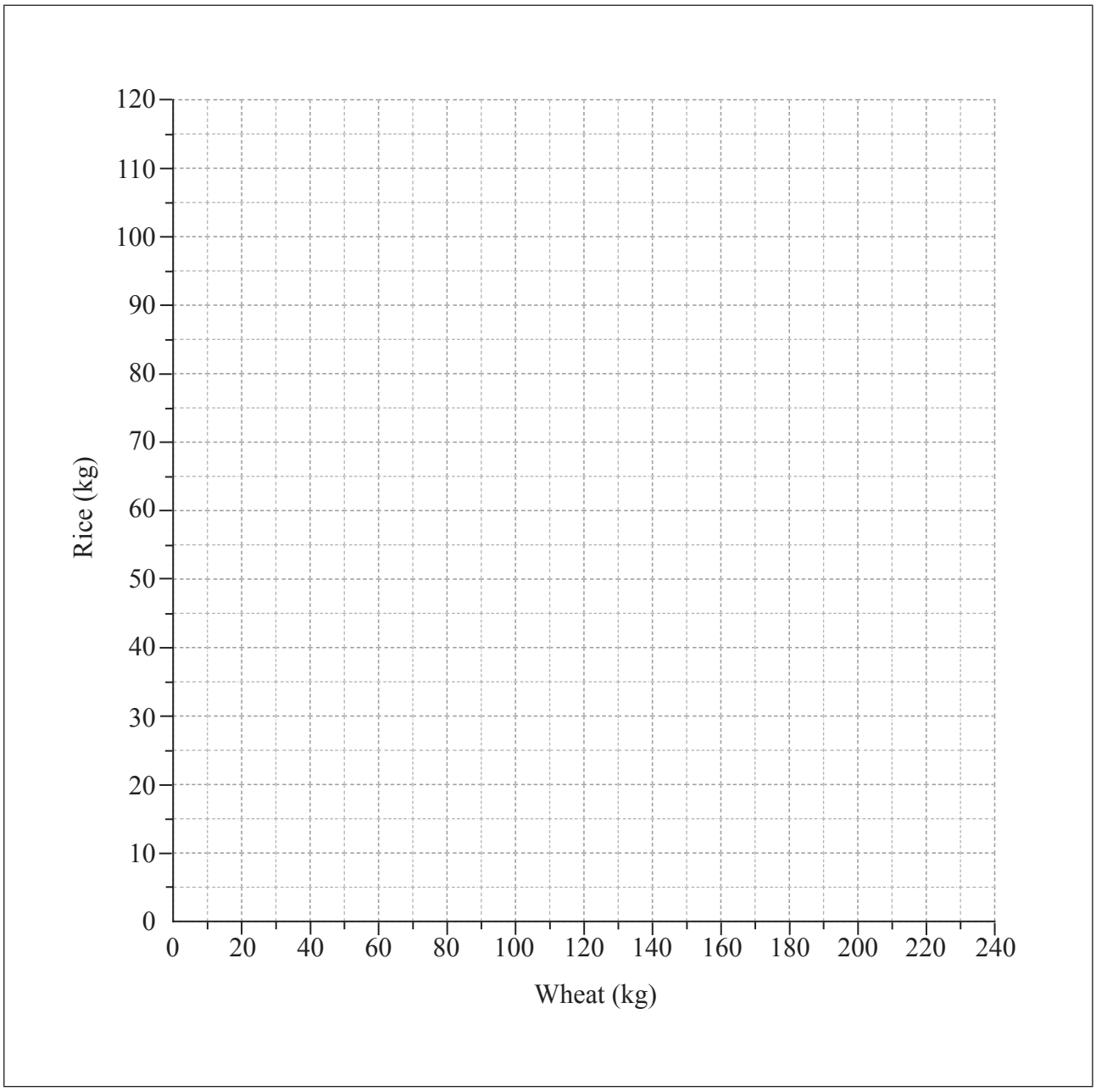
(Question 1 continued)

(c) On the axes below, draw the production possibility curves (PPC) for Country A and Country B in the production of wheat and rice. *[3]*



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(Question 1 continued)

(d) With reference to the diagram in part (c) and/or the data given, explain the theory of comparative advantage. *[4]*

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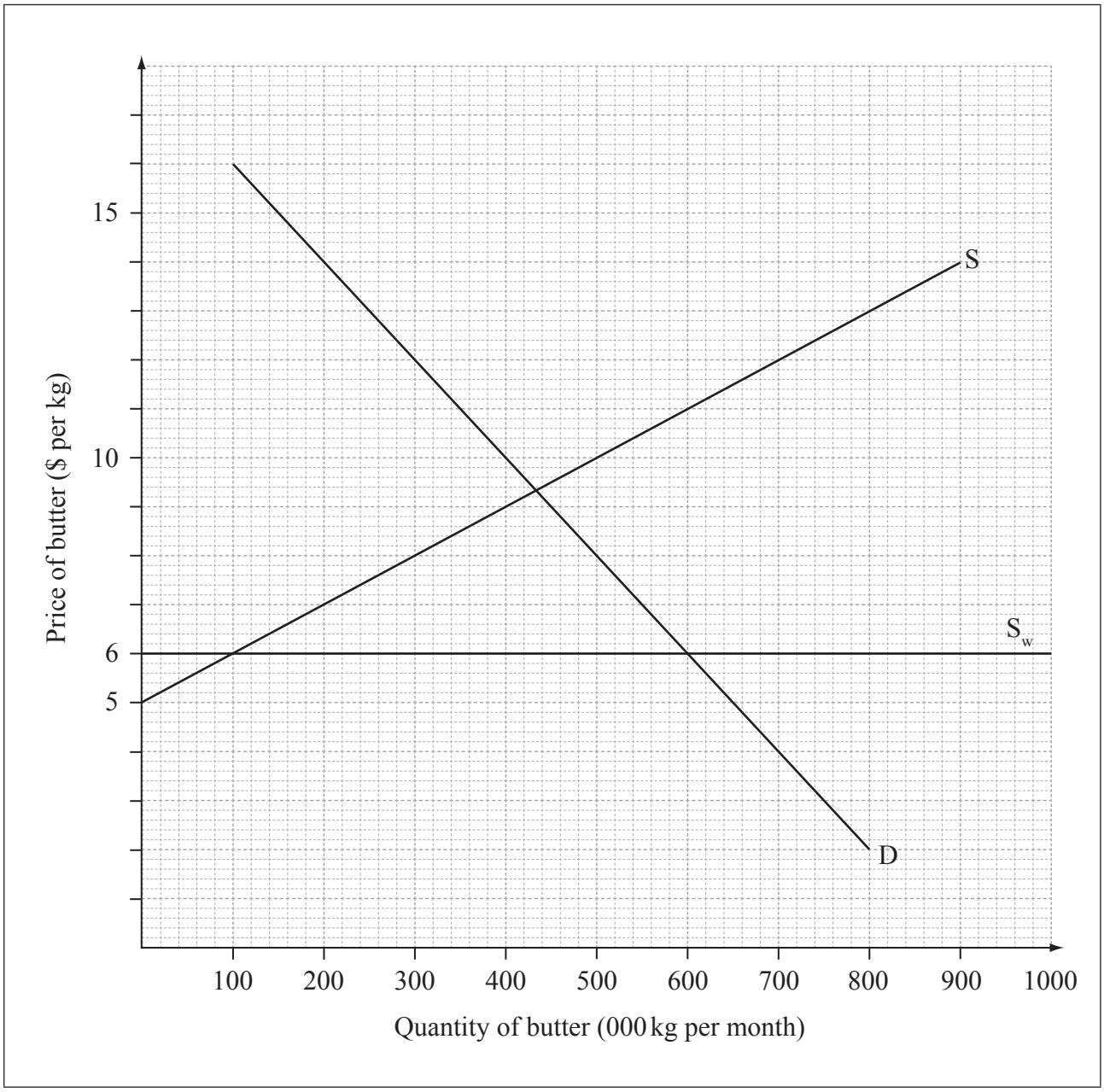
(Question 1 continued)



(e) The diagram above represents the market for butter in Gondowa. Domestic supply and demand curves are given by S and D, while butter can be imported at the world price of \$6/kg (S_w).

The government of Gondowa decides to grant a subsidy of \$2 per kg to domestic producers of butter.

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(Question 1 continued)

(i) State the monthly volume of domestic production before the subsidy is granted. *[1]*

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(ii) State the monthly volume of imports before the subsidy is granted. *[1]*

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(iii) On the diagram, draw the new domestic supply curve for butter and label it S_{+s}. *[2]*

(iv) Calculate the level of government spending required to finance this subsidy. *[2]*

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(v) Calculate the revenue earned by domestic producers of butter before the subsidy is granted. *[1]*

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(Question 1 continued)

(vi) Calculate the revenue earned by domestic producers of butter after the subsidy is granted. *[1]*

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(f) Using your answers to part (e) and/or your knowledge of economics, explain **two** disadvantages to Gondowa of the introduction of a subsidy on butter. *[4]*

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2. In the country of Zestria, the monthly demand for Good X is given by the function

$$Q_D = 420 - 30P$$

where Q_D is the quantity per month and P is the price per unit in dollars ($).

(a) From the equation, identify the slope of the demand function given above. *[1]*

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(b) Calculate the price at which the monthly quantity demanded would be

(i) 210 units; *[2]*

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(ii) 60 units. *[2]*

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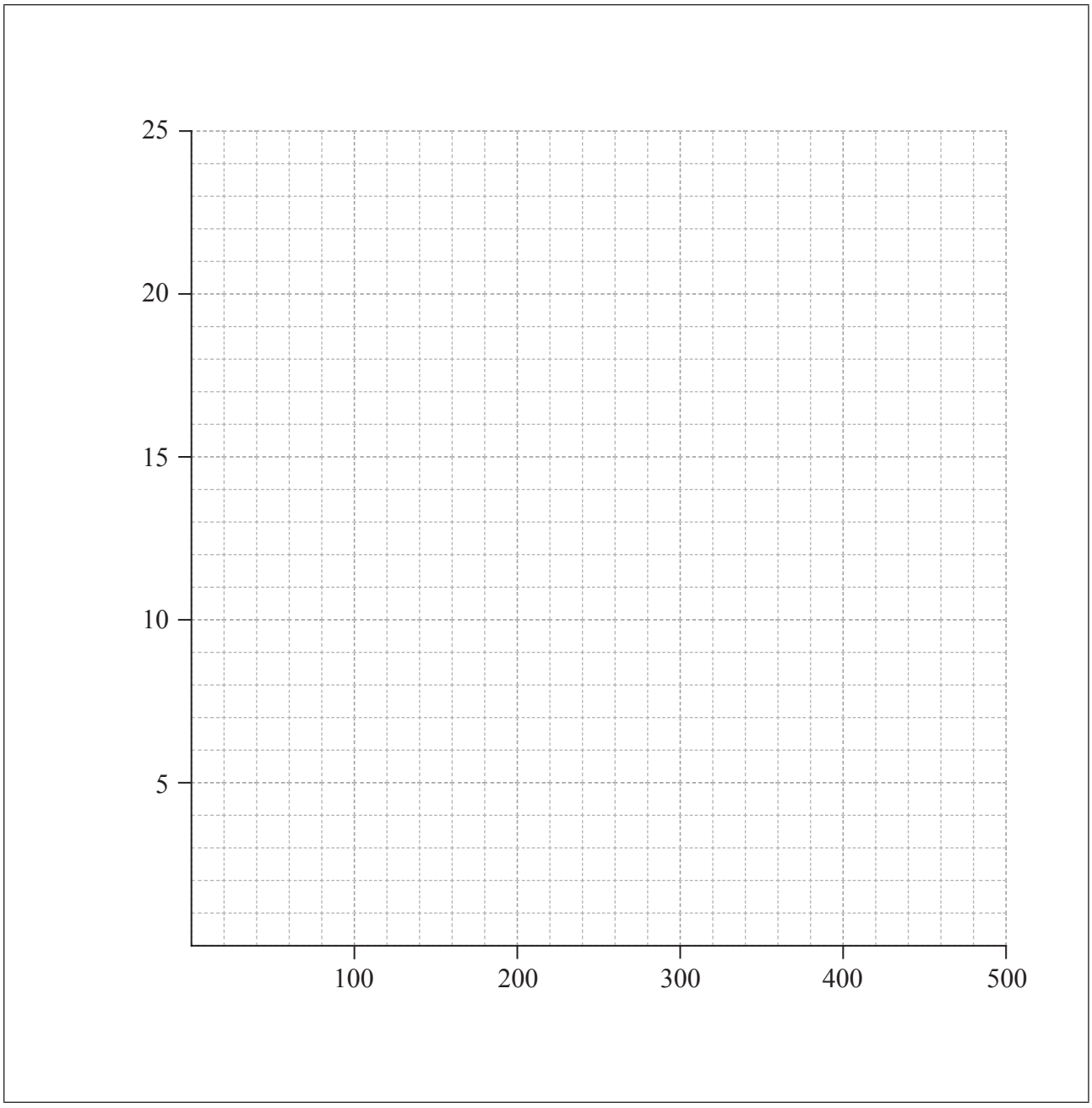
(Question 2 continued)

(c) (i) Label the axes on the following grid. *[1]*

(ii) Construct the demand curve for Good X on the following grid. *[1]*



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(Question 2 continued)

(d) (i) Outline why the position of the demand curve will change if the demand function changes to

$Q_D = 500 - 30P$. *[2]*

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(ii) Outline how the steepness of the demand curve will change if the demand function changes to

$Q_D = 420 - 40P$. *[2]*

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(Question 2 continued)

The following table provides data on the price and quantity demanded (per month) of three goods in Zestria.

	Good A		**Good B**		**Good C**	
	Price ($ per unit)	Quantity demanded	Price ($ per unit)	Quantity demanded	Price ($ per unit)	Quantity demanded
January 2014	8	160	10	200	15	100
February 2014	6	220	10	190	15	150

(e) (i) Calculate the price elasticity of demand for Good A when its price falls between January 2014 and February 2014. *[2]*

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(ii) Calculate the cross elasticity of demand between Good A and Good B when the price of Good A falls between January 2014 and February 2014. *[2]*

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(Question 2 continued)

(iii) Calculate the cross elasticity of demand between Good A and Good C when the price of Good A falls between January 2014 and February 2014. *[2]*

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(f) Using your answers to part (e), explain the relationship between Good A and Good B, and between Good A and Good C. *[4]*

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(Question 2 continued)

(g) Good J and Good K are both produced in Zestria. The price elasticity of demand for Good J, a primary commodity, is –0.2. The price elasticity of demand for Good K, a manufactured good, is –2.3.

Explain **two** reasons why the demand for products such as Good K tends to be relatively price elastic compared to the demand for products such as Good J. *[4]*

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Answers written on this page
will not be marked.

3. The following table shows 2012 data for Country X (all figures in billions* of dollars ($)).

Table 1

Variable	$ (billions)
Consumption expenditure	125.6
Investment expenditure	33.9
Government expenditure	89.1
Tax revenue	55.4
Exports of goods and services	78.5
Imports of goods and services	48.7
Factor income paid (sent) abroad	22.3
Factor income earned (received from) abroad	29.6

(a) Explain the differences between GDP, green GDP and GNI. *[4]*

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* billion: one thousand million (1 000 000 000)

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(Question 3 continued)

(b) Using the data in Table 1,

(i) calculate the GDP of Country X for 2012. *[2]*

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(ii) calculate the GNI of Country X for 2012. *[2]*

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(iii) calculate the balance of trade in goods and services for Country X in 2012. *[2]*

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(Question 3 continued)

The following table shows additional data for Country X.

Table 2

Year	Nominal GDP ($ billions)	GDP deflator	Real GDP ($ billions)	Annual real growth rate (%)	Population	Real GDP per capita ($)
2014	308.12	98.9			13 273 644	
2015	321.99	100			13 340 012	
2016	332.65	102.2			13 473 412	

(c) (i) Using the data in Table 2 calculate the level of real GDP for Country X for 2014 to 2016. Enter your results in Table 2. *[3]*

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(ii) Outline the difference between nominal GDP and real GDP. *[2]*

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(Question 3 continued)

(d) Calculate the annual real growth rate for Country X for 2015 and 2016. Enter your results in Table 2. *[2]*

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(e) Using the data in Table 2 calculate the real GDP per capita for Country X for 2014 to 2016. Enter your results in Table 2. *[3]*

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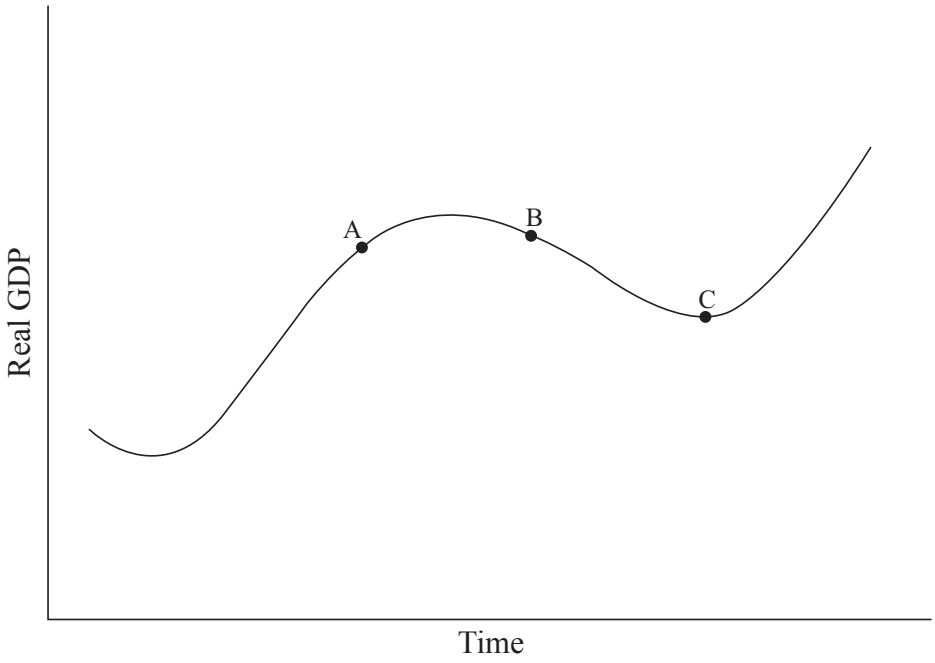
(Question 3 continued)

(f) Identify which of the three letters (A, B or C) on the following business cycle diagram best describes the position of Country X in 2016. *[1]*



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(g) Explain **two** reasons why real GDP per capita may not be an accurate measure of living standards in Country X. *[4]*

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