

Write your name here

Surname

Other names

**Pearson Edexcel**  
International  
Advanced Level

Centre Number

Candidate Number

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# Economics

## Unit 1: Competitive Markets: How they work and why they fail

Wednesday 15 January 2014 – Afternoon  
**Time: 1 hour 30 minutes**

Paper Reference  
**6ECA1/01**

You do not need any other materials.

Total Marks

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** the questions in Section A and **one** question from Section B.
- Answer the questions in the spaces provided
  - there may be more space than you need.

### Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
  - use this as a guide as to how much time to spend on each question.
- Questions labelled with an **asterisk** (\*) are ones where the quality of your written communication will be assessed
  - you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.
- Calculators may be used.

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Check your answers if you have time at the end.

*Turn over ▶*

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**PEARSON**

**Section A: Answer all the questions in this section**

**You should spend 35 minutes on this section. Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.**

**1** Opportunity cost may be illustrated by (1)

- A** a shift in the supply curve for a good
- B** a movement along a production possibility frontier
- C** a movement along the demand curve for a good
- D** an outward shift in a production possibility frontier

**Answer**

**Explanation**

(3)

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**(Total for Question 1 = 4 marks)**



**2** One advantage of a free market economy is that

(1)

- A** education and healthcare are funded from taxation and freely available to all
- B** government intervention can be used to correct market failure
- C** firms concentrate on producing necessities rather than luxuries
- D** competition between firms can be of benefit to consumers

**Answer**

**Explanation**

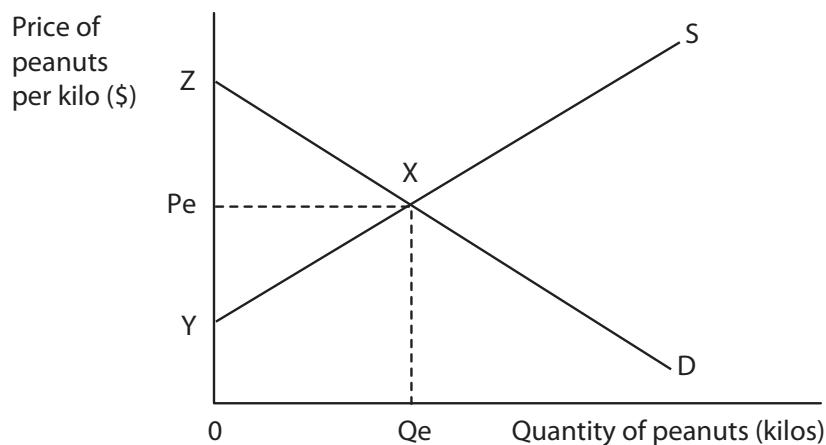
(3)

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**(Total for Question 2 = 4 marks)**



**3**



The diagram shows the market for peanuts where the initial equilibrium price is  $Pe$  and quantity  $Qe$ . You may use the diagram in your explanation.

The most likely effect of a severe drought which damages the peanut crop is for:

(1)

- A** price to remain at  $Pe$  and producer surplus to increase
- B** price to increase and consumer surplus to decrease
- C** price to decrease and consumer surplus to increase
- D** both price and producer surplus to increase

**Answer**

**Explanation**

(3)

**(Total for Question 3 = 4 marks)**



**4 Estimates of UK price elasticity of demand for selected food items, 2011**

Food item	Price elasticity of demand
Meat	- 0.3
Fruit and vegetables	- 0.2
Cereal	0.0

(Source: <http://www.ers.usda.gov/data-products/international-food-consumption-patterns.aspx>)

Other things being equal, the data in the table suggest that:

(1)

- A A fall in the price of meat will lead to a decrease in total revenue for meat producers
- B An increase in the price of fruit and vegetables will lead to a more than proportionate decrease in demand for them
- C Demand is less price elastic for meat than fruit and vegetables
- D Demand for cereal is perfectly price elastic

**Answer**

**Explanation**

(3)

**(Total for Question 4 = 4 marks)**



- 5** Research conducted in the US estimated that the income elasticity of demand for tobacco is  $-0.12$ .

This estimate suggests that tobacco is

(1)

- A** a normal good
- B** income elastic in demand
- C** an inferior good
- D** price inelastic in demand

**Answer**

**Explanation**

(3)

**(Total for Question 5 = 4 marks)**



**6** Which of the following is most likely to **reduce** the occupational mobility of labour? (1)

- A** Falling rail and bus fares
- B** A fall in regional house price differences
- C** An increase in the proportion of multi-skilled workers in the labour force
- D** A cut in funding for training programmes aimed at the unemployed

**Answer**

**Explanation**

(3)

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**(Total for Question 6 = 4 marks)**



## 7 The market for wheat

Price per tonne (£)	Quantity demanded (thousand tonnes)	Quantity supplied (thousand tonnes)
320	102	110
300	104	108
280	106	106
260	108	104
240	110	102

The table shows the demand and supply schedules for wheat in a given year. The government maintains a guaranteed minimum price of £300 per tonne of wheat by buying up any surplus at this price. Government expenditure on the scheme in this year is

(1)

- A £32 400 000
- B £31 200 000
- C £1 200 000
- D £300 000

Answer

Explanation

(3)

(Total for Question 7 = 4 marks)



- 8** In 2012, the European Commission planned to extend the carbon emissions trading scheme to aircraft landing in EU countries. Such carbon permits

(1)

- A** would only be used by the airlines which received them
- B** are designed to equate total social costs with total social benefits of flying
- C** are designed to reduce total external costs of flying
- D** would be effective in reducing carbon emissions if there were an excess supply

**Answer**

**Explanation**

(3)

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**(Total for Question 8 = 4 marks)**

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**TOTAL FOR SECTION A = 32 MARKS**



P 4 3 2 3 6 A 0 9 3 6

**Section B: Answer either Question 9 or Question 10.**

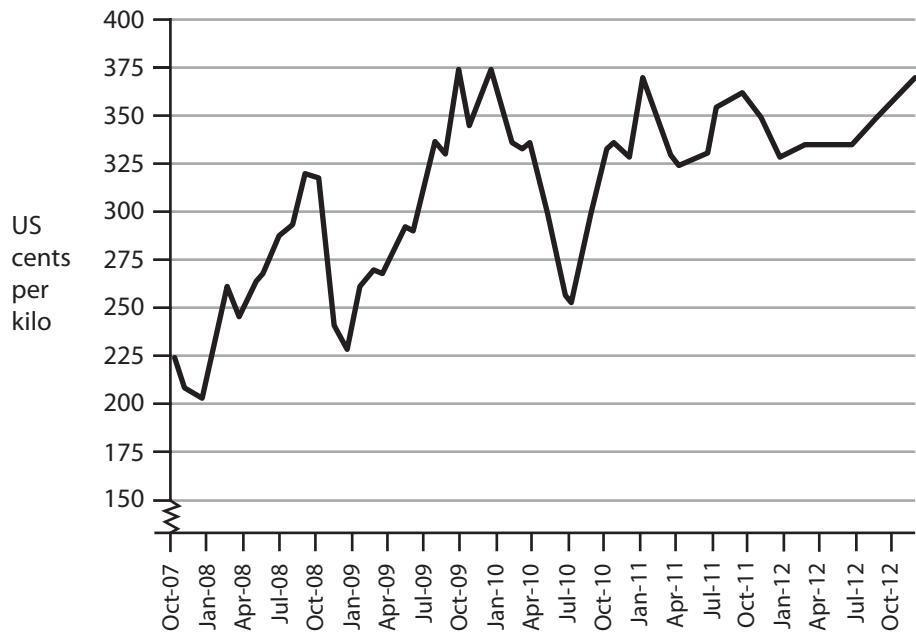
If you answer Question 9 put a cross in this box  .

Question 10 starts on page 22.

You should spend 55 minutes on this section.

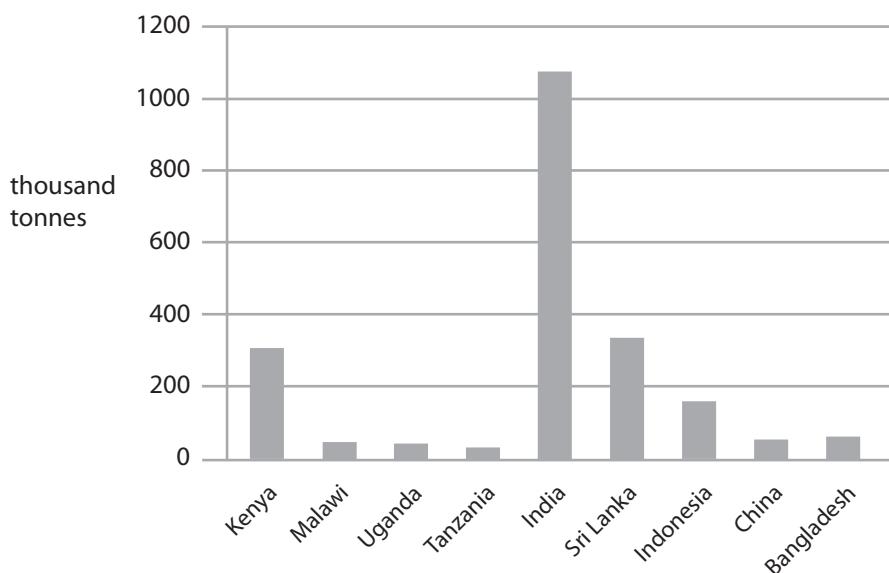
**9 The market for black tea**

**Figure 1 Price of black tea 2007–2012 (US cents per kilogram)**



(Source: © IMF)

**Figure 2 World production of black tea, selected countries (estimated, 2010)**



(Source: © FAO, Medium-term prospects for agricultural commodities)



### **Extract 1 Growing taste for black tea**

Black tea is the most popular type of tea drunk in the UK. A growing taste for black tea among newly affluent Chinese consumers is set to cause a significant increase in its price over the next few years according to Aditya Khaitan, Managing Director of McLeod Russel, India's largest producer of black tea. He stated "It's becoming more fashionable in China and the younger Chinese are starting to drink black tea instead of green tea".

5

Higher prices are inevitable because the world's main black tea producers – India, Kenya and Sri Lanka are struggling to meet rising demand. India and Sri Lanka have no extra land available for tea cultivation and Kenya has very little. "It's putting a lot of pressure on the production base," Mr Khaitan said. "You need 700 to 800 hectares of high land for a tea garden but this is very difficult to find." Some land is available in Rwanda and Vietnam but this takes time to develop – tea bushes can only be harvested six years after they are planted.

10

The black tea market has suffered for many years from fluctuating prices. A buffer stock scheme to reduce price fluctuations was never attempted because of major obstacles over funding, storability and the difficulty of achieving agreement from all the major black tea growers across different countries.

15

(Source: © Times Newspapers Limited, 7 April 2012)

### **Extract 2 The benefits of consuming black tea**

Drinking at least three cups of black tea daily may lower an individual's risk of cardiovascular disease and diabetes according to new research published in the Bulletin of Nutrition Communications. Researchers reviewed 40 separate studies and evaluated the evidence before coming to these conclusions.

Black tea contains many anti-oxidants which help to protect the heart and blood vessels and reduce high blood pressure. It may also increase mental alertness and so lead to greater productivity in the workplace. A cup of tea contains just half the level of caffeine, which is harmful in large quantities, when compared to a cup of coffee.

5

However, the researchers noted that the precise mechanisms involved in determining the health benefits from drinking tea remain unclear and that further investigation is required.

10

(Source: © Nutrition Horizon, 9 January 2012 and © 2011 Eswaran Brothers Exports (Pvt) Ltd)



P 4 3 2 3 6 A 0 1 1 3 6

- (a) Explain the likely effect on total revenue for the producers of black tea following a growing taste for the drink among newly affluent Chinese consumers (Extract 1, lines 1–2). Use a supply and demand diagram in your answer. (6)
- (b) Explain the likely impact of a growing taste for black tea on the workers who produce it. (4)
- (c) With reference to Extract 1, Figure 2 and your own knowledge, discuss whether the world supply of black tea is likely to be price elastic or price inelastic. (10)
- \*(d) Assess the likely success of a buffer stock scheme for stabilising the price of black tea. Use an appropriate diagram in your answer. (14)
- \*(e) With reference to Extract 2, evaluate the possible private benefits and external benefits resulting from consumers switching from coffee to tea. Illustrate your answer with an appropriate diagram. (14)



- (a) Explain the likely effect on total revenue for the producers of black tea following a growing taste for the drink among newly affluent Chinese consumers (Extract 1, lines 1–2). Use a supply and demand diagram in your answer.

(6)



P 4 3 2 3 6 A 0 1 3 3 6

- (b) Explain the likely impact of a growing taste for black tea on the workers who produce it.

(4)

- (c) With reference to Extract 1, Figure 2 and your own knowledge, discuss whether the world supply of black tea is likely to be price elastic or price inelastic.

(10)





P 4 3 2 3 6 A 0 1 5 3 6

**\*(d) Assess the likely success of a buffer stock scheme for stabilising the price of black tea. Use an appropriate diagram in your answer.**

(14)





P 4 3 2 3 6 A 0 1 7 3 6



P 4 3 2 3 6 A 0 1 8 3 6

**\*e)** With reference to Extract 2, evaluate the possible private benefits and external benefits resulting from consumers switching from coffee to tea. Illustrate your answer with an appropriate diagram.

(14)





P 4 3 2 3 6 A 0 2 0 3 6

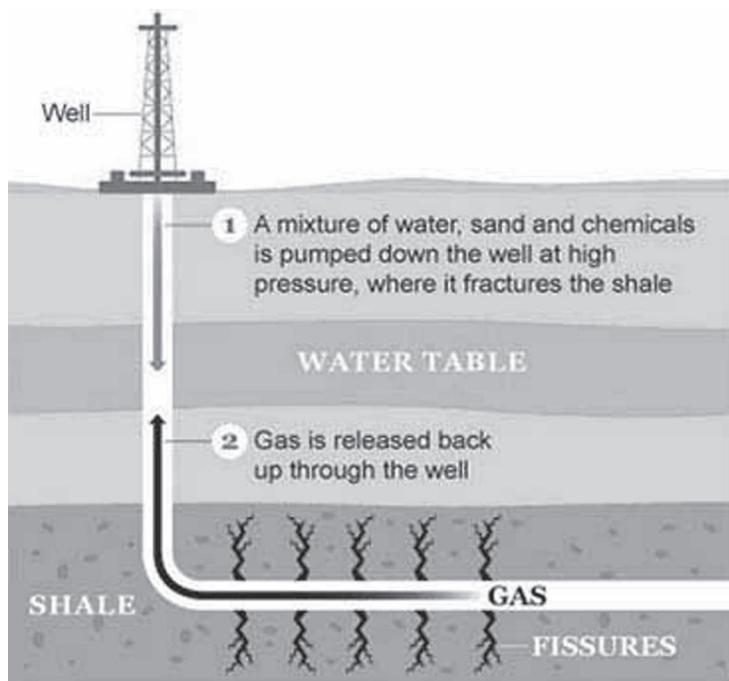
**(Total for Question 9 = 48 marks)**



If you answer Question 10 put a cross in this box  .

## 10 The extraction of gas from underground rock

**Figure 1 The extraction of gas from underground rock – known as fracking**



(Source: © *Independent*, 13 December 2012)

### Extract 1 The benefits and costs of extracting gas from underground rock in the UK

Extraction has started of vast reserves of underground gas trapped in shale rock which lies between Blackpool and Preston. This involves drilling deep wells and pumping vast quantities of water, sand and chemicals into the rock at high pressure – a process known as 'fracking'. It releases the gas from the rock which then rises to the surface for collection.

Supporters of fracking argue that it provides an important new energy source that will help keep gas prices down for consumers and reduce the use of coal, which causes more carbon emissions. Most of the fracking operations are virtually invisible above ground, unlike solar and wind power.

However, many environmental groups have condemned fracking as a dirty and desperate attempt to exploit the last major non-renewable energy resource. In March 2012, fracking was temporarily halted after it caused two minor earthquakes close to Blackpool. There are also long-term fears that property prices will fall in areas where fracking occurs.

Furthermore, concern has been raised over the possibility that fracking might contaminate underground supplies of water with methane and drilling chemicals. This occurred in Wyoming, USA. Some campaigners even claim that New York's water supply is at risk from contamination.

5

10

15



In the USA, fracking accounts for a quarter of the country's gas supply and this figure is expected to rise to nearly half by 2035. Fracking is now used in other countries including Australia and China. However, France and Bulgaria have banned it amid pollution concerns.

20

Lord Browne, former Chief Executive of BP, an energy company, believes Blackpool could become the fracking capital of Europe, creating 50 000 jobs and meeting Britain's gas needs for nearly a century. However, environmentalists argue that development of renewable energy resources is a cleaner and more sustainable option.

25

(Source: © *The Guardian*, April 12 and April 17 2012)

### **Extract 2 Government measures: regulation and taxation of gas extraction from underground rock**

A joint report by The Royal Academy of Engineering and the Royal Society of Engineering recommended that fracking should continue in the UK but with stronger regulation, including close monitoring of the companies involved. Pollution levels in the atmosphere and water supply should be measured before, during and after operations by an independent inspector. The drilling wells should also be monitored throughout to minimise leakages.

5

A large indirect tax on the gas collected by fracking could provide the government with the funding to reduce any negative environmental impact and compensate victims. In the US state of Ohio, which has extensive fracking operations, up to \$1 billion is expected to be collected in tax revenue over the next five years. However, of the money raised so far, just a tiny amount has been used to reduce the harmful effects of fracking. Regulation remains weak and poorly enforced, due in part to the thousands of gas wells bored.

10

(Source: © *The Independent*, June 29 2012 and © <http://www.governing.com/columns/public-finance/col-state-taxes-hydraulic-fracking.html>)

- (a) Using examples from Extract 1, distinguish between renewable and non-renewable energy resources. (4)
- (b) Explain **two** possible benefits that result from the extraction of gas from underground rock. (6)
- (c) Referring to cross elasticity of demand, assess the likely relationship between the price of gas and the demand for coal (Extract 1, line 7). (10)
- \*(d) To what extent is market failure likely to be a result of fracking? Refer to external costs of production and use an appropriate diagram in your answer. (14)
- \*(e) With reference to Extract 2, evaluate **two** government measures to reduce the possible external costs of extracting gas from underground rock. (14)



- (a) Using examples from Extract 1, distinguish between renewable and non-renewable energy resources.

(4)



(b) Explain **two** possible benefits that result from the extraction of gas from underground rock.

(6)



- (c) Referring to cross elasticity of demand, assess the likely relationship between the price of gas and the demand for coal (Extract 1, line 7).

(10)





**\*d)** To what extent is market failure likely to be a result of fracking? Refer to external costs of production and use an appropriate diagram in your answer.

(14)







P 4 3 2 3 6 A 0 3 0 3 6

\*(e) With reference to Extract 2, evaluate **two** government measures to reduce the possible external costs of extracting gas from underground rock.

(14)





P 4 3 2 3 6 A 0 3 2 3 6

**(Total for Question 10 = 48 marks)**

**TOTAL FOR SECTION B = 48 MARKS**

**TOTAL FOR PAPER = 80 MARKS**



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