

Write your name here

Surname

Other names

Centre Number

Candidate Number

**Edexcel GCE**

**Economics**

**Advanced**

**Unit 3: Business Economics and Economic Efficiency**

Tuesday 4 June 2013 – Afternoon

**Time: 1 hour 30 minutes**

Paper Reference

**6EC03/01**

**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 72.
- 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** A firm with monopoly power decreases the price of its product to increase its market share up to the output at which it just earns normal profit. Which of the following is the best description of the firm's objective? (1)
- A** Profit maximisation in the short run
  - B** Increased market contestability
  - C** Revenue maximisation in the long run
  - D** Sales maximisation
  - E** Loss minimisation

Answer

Explanation (3)

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



2 Lufthansa, a German airline, owned British Midlands International (BMI), a loss-making airline. Lufthansa announced plans to sell BMI in November 2011. Which one of the following is the most likely reason for this sale?

(1)

- A The BMI part of the business was facing increasing marginal returns
- B BMI was experiencing falling marginal costs
- C To benefit from conglomerate integration
- D To increase market concentration
- E To reduce diseconomies of scale

Answer

Explanation

(3)

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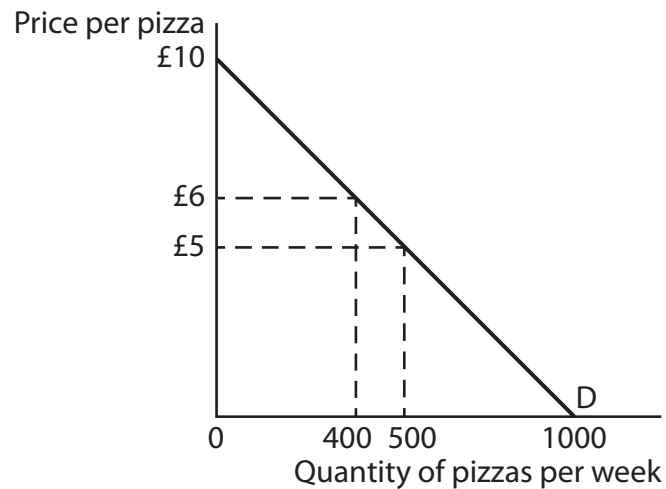
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**(Total for Question 2 = 4 marks)**



- 3 A pizza restaurant faces the following demand curve (D). Which one of the following is necessarily true? (1)



- A** Marginal revenue will be positive then negative as price falls  
**B** Revenue maximisation occurs at a price of £6  
**C** Sales are maximised at a price of £6  
**D** Average revenue will equal zero where price elasticity of demand is unitary  
**E** Cutting the price from £6 to £5 will increase profits

Answer

Explanation

(3)

(Total for Question 3 = 4 marks)



4 A sports equipment chain of shops faces a downward sloping demand curve and is making supernormal profits. The impact of a significant rise in the **rent** for the shops is likely to lead to

(1)

	<b>Price</b>	<b>Profit</b>
<b>A</b>	No change	No change
<b>B</b>	Rise	No change
<b>C</b>	Rise	Fall
<b>D</b>	Fall	Fall
<b>E</b>	No change	Fall

Answer

Explanation

(3)

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(Total for Question 4 = 4 marks)



5 X-inefficiency is most likely to exist in markets where

(1)

- A new firms have recently entered the market
- B there are long-term patents in place
- C there is a high level of contestability
- D the conditions for price discrimination are not met
- E concentration ratios are low

Answer

Explanation

(3)

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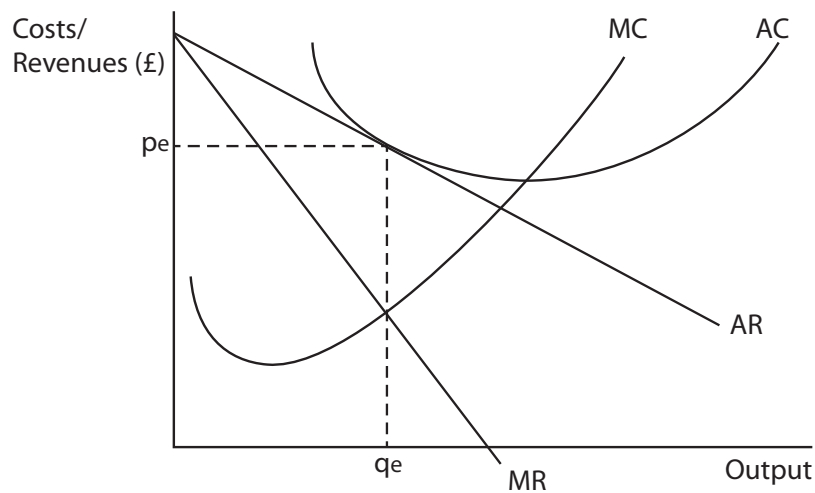
**(Total for Question 5 = 4 marks)**



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6 A small profit maximising café faces the following cost and revenue curves. It is noted that the café is never full.



Which one of the following is most likely to apply to this café?

(1)

- A It is productively inefficient in the long run
- B It is making supernormal profits
- C There is evidence of collusion
- D It operates in a perfectly competitive market
- E It is allocatively efficient in the long run

Answer

Explanation

(3)

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





**8** A commodity is traded under conditions of perfect competition. Which one of the following is a likely impact of exit from the industry by a large number of loss-making producers?

(1)

- A** Firms remaining in the market will cut their prices
- B** Firms remaining in the market will keep their prices unchanged
- C** Firms will operate where their average revenue is greater than their marginal revenue
- D** Firms remaining in the market will make normal profits in the long run
- E** Demand for the commodity will expand as prices fall

Answer

Explanation

(3)

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

**TOTAL FOR SECTION A = 32 MARKS**



**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 23.**

**You should spend 55 minutes on this section.**

**9 Egg farming, egg distribution, food manufacturing and supermarkets**

**Extract 1 A letter from a chicken farmer**

Our problems started four years ago when the big egg packaging and distribution firms merged, purchasing nearly 70% of the eggs produced. I lost £40 000 last year and I could see the profits of Noble Foods [the UK's biggest egg distributor] increasing. There was no competition anymore and prices paid to egg farmers stayed low, while everything else, like the cost of chicken feed, was going up. New EU regulations preventing the housing of hens in conventional 'battery' cages have meant installing new cages, costing over £14 per hen. Many egg farmers like me are unable to absorb the costs of buying the new cages and some egg farmers have left the industry. 750 000 hens have been slaughtered across the UK.

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**Extract 2 The egg distribution business - profile of Noble Foods Limited**

Noble Foods, the UK's largest egg packaging and distribution business, operates 160 vehicles from seven sites, 365 days a year, employing over 150 full-time drivers in temperature controlled vehicles. Eggs are collected from over 325 individual farm producers located throughout the UK and transferred to a packing centre, where they are sorted and boxed for delivery to customers. Pre-tax profits at Noble Foods increased by £1.4 million in 2011.

5

(Source: © 2011 Noble Foods Ltd)

**Extract 3 Increased costs of eggs for food manufacture**

Eggs – both in liquid and powdered form – are used in a variety of food products from biscuits and cakes to pasta and mayonnaise. The reduced supply of eggs, caused by the new EU regulations, is damaging the profits of some food manufacturers. Several of them are closing down their production lines because they cannot afford the soaring cost of eggs from distribution firms. However, they cannot raise their prices because supermarkets refuse to pass on any increase to consumers.

5



### Extract 4 British farmers forced to pay the cost of supermarket price wars

Farmers say they are being forced out of business by the unfair buying practices of supermarkets. Discounts such as "buy one get one free" are not a generous gift from the supermarket. There is public ignorance of how supermarkets buy produce and the system that allows them to offer lower prices while increasing their profits. Tesco's profits were above £3.5bn for the first time last year and Sainsbury's rose by nearly 13%. These results are achieved largely by getting suppliers to reduce their prices or not pass farmers' cost increases through to the supermarkets. Most sectors of British farming, from eggs to fruit, vegetables and pork, have had reduced prices paid for their produce in the past year, despite record increases in costs.

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(Sources 1, 3 and 4: adapted from © The Guardian 2 July 2011, © The Observer and © Parliamentary copyright 2011)

**Figure 1 Egg types in the EU**

Types of eggs produced in EU	Minimum cage requirements per hen	Market share in UK, 2012 forecast
Hens in conventional cages, 'battery'	550cm <sup>2</sup>	Banned January 2012 under new EU regulations
'Caged' hens in EU-compliant cages	750cm <sup>2</sup> and a minimum height of 45cm with nest area, perching space and a scratching area	49%
Barn eggs	1110cm <sup>2</sup> free to move in large indoor area	4%
Free range eggs	As barn, with daytime access to open air pen, 4m <sup>2</sup>	44%
Organic free range eggs	As free range, plus organic food (no artificial growth enhancers)	3%

**Figure 2 UK egg market information 2011**

Egg production	9 691 million eggs
Egg consumption	11 512 million eggs (32 million per day)
<b>Consumers of eggs in the UK</b>	
Retail (supermarkets etc.)	47%
Food Manufacturers	25%
Foodservice (hotels, restaurants)	28%

(Sources for Figure 1 and Figure 2: permission to reproduce granted by the British Egg Information Service, [www.britegg.co.uk](http://www.britegg.co.uk) and © European Union, <http://eur-lex.europa.eu/>)



- (a) Using the information provided, explain the market power enjoyed by egg packaging and distributing firms, such as Noble Foods, when buying eggs from chicken farmers. (4)
- (b) Using a cost and revenue diagram, examine why some egg farmers are leaving the industry. Refer to Extract 1 in your answer. (8)
- \*(c) Discuss the effects of increased EU regulations on egg consumers. Refer to Figure 2 in your answer. (12)
- \*(d) Assess reasons why supermarkets are not increasing the retail price of eggs to cover the increased production costs of egg farmers. Use game theory to support your answer. (16)



(a) Using the information provided, explain the market power enjoyed by egg packaging and distributing firms, such as Noble Foods, when buying eggs from chicken farmers.

(4)

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(b) Using a cost and revenue diagram, examine why some egg farmers are leaving the industry. Refer to Extract 1 in your answer.

(8)

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Handwriting practice area with 20 horizontal dotted lines.



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

\*(c) Discuss the effects of increased EU regulations on egg consumers. Refer to Figure 2 in your answer.

(12)

A series of horizontal dotted lines for writing an answer.



Handwriting practice area with 25 horizontal dotted lines.



\***(d)** Assess reasons why supermarkets are not increasing the retail price of eggs to cover the increased production costs of egg farmers. Use game theory to support your answer.

**(16)**

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If you answer Question 10 put a cross in this box

## 10 The UK household energy market

### Extract 1 Price cuts by the 'Big Six' energy companies

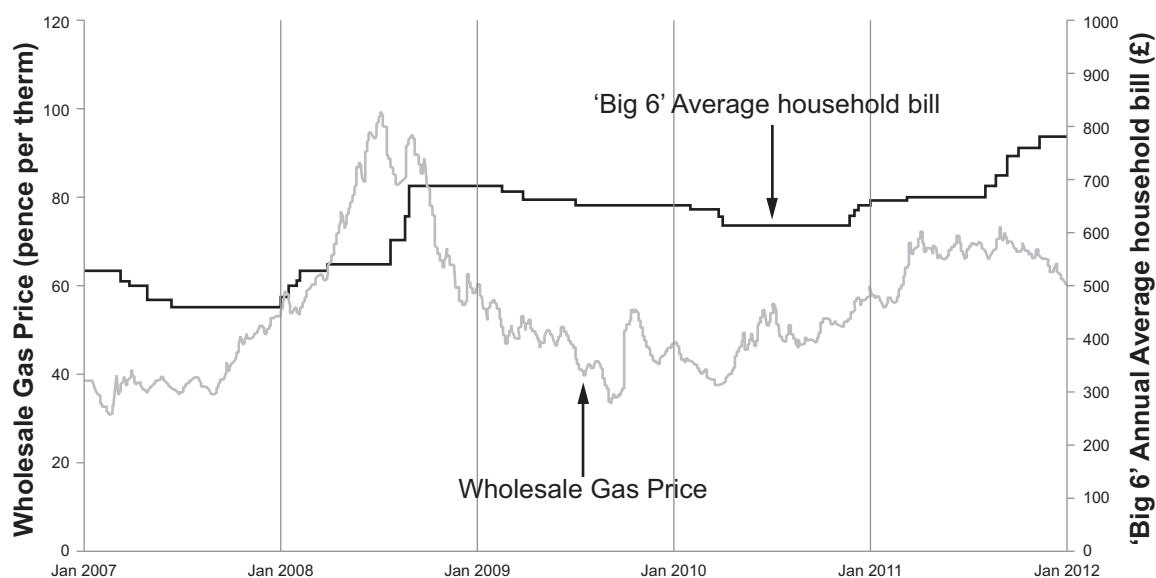
99% of all gas and electricity bought by households in the UK is supplied by the 'Big Six' energy firms, British Gas, Scottish and Southern Energy (SSE), Scottish Power, E.ON, EDF Energy and npower. The combined profits of the 'Big Six' reached £15 billion in 2011, up £2 billion on the previous year, with an average profit per customer of £80 a year. 5

British Gas, which supplies both gas or electricity to half of UK households, cut its electricity prices by 5% in February 2012 but kept gas prices unchanged. This was quickly followed by SSE cutting 4.5% from its gas prices. British Gas had been expected to cut prices after another of the 'Big Six' energy providers, EDF Energy, announced it would be reducing gas prices by 5% with effect from 7 February 2012. 10

However, the cuts were smaller than expected. The average standard tariff for a customer buying both gas and electricity from the same supplier will remain on average £1 250 a year (doubled since 2005). The price cuts will only reduce bills by between £24 and £28 per year for the average household. 5.5 million households will remain in fuel poverty, meaning that they are spending at least 10% of their income on power. 15

(Source for Figure 1 and Extract 1: adapted from © The Guardian News and Media Limited, 2012)

**Figure 1 A comparison of wholesale and retail price of gas**



## Extract 2 Energy regulator tells firms to cut their prices or face tough controls

A price cap, RPI-X, on energy bills could be introduced for the first time since 2002, according to the regulator Ofgem. There are rising concerns that customers are being exploited by the 'Big Six' energy firms. The energy firms will have to simplify their pricing structures (tariffs) this year. If this fails the whole industry will face a Competition Commission inquiry which could force a break-up of its dominant players. Ofgem said: "Parliament has given us the task of trying to create an effective market where competition is the downward pressure on prices. We think that's the way to go, although we haven't ruled out regulation, particularly for more vulnerable customers, if our reforms don't work." Energy campaigners are calling for a windfall tax on excessive energy profits and for the money to be used to help in the fight against fuel poverty by making homes more energy efficient. 5 10

Rising global demand for energy and the end of cheap North Sea gas are responsible for most of the increases but consumer groups also believe suppliers are keeping bills artificially high. One of the 'Big Six', the French-owned EDF Energy, reported a near trebling of its annual profits to €3 billion (£2.5 bn), with profits from its British operations rising 8.5%. EDF Energy is currently the subject of two Ofgem investigations into poor customer service and inappropriate selling methods. Ofgem is currently consulting on forcing the 'Big Six' to set uniform standard charges to allow consumers to compare raw costs, or unit prices, more easily. Ofgem is also intending to sweep away the hundreds of different tariffs operated by the companies into just two types – standard and innovative. In 2008 Ofgem ran a nine-month inquiry after all the energy companies raised their prices within a few weeks of each other. No evidence of collusion was found but action was proposed to ensure that smaller independent companies are not kept out of the supply market. The price movements look like tacit collusion but the regulatory authorities lack the power to prove this. 15 20 25

Ofgem's faith in an unregulated free market has been shaken by the failure of the 'Big Six' to embrace its previous reforms of bills and tariffs. Although it says it is "encouraged" by recent attempts by some suppliers to simplify charges, it is closely monitoring their performance and failure to comply will trigger a full Competition Commission inquiry. Companies need to narrow the widening gap between wholesale and household energy prices. "Consumers are right to ask whether the market structure is right and whether regulation of prices is the answer," said Ian Marlee, a senior Ofgem official. 30

(Source: adapted from Martin Hickman © The Independent, [www.independent.co.uk](http://www.independent.co.uk) and © <http://www.regulation.org.uk/energy.shtml>)





- (a) With reference to the information provided, what market structure best describes the supply of household energy in the UK? (4)
- (b) Using the information provided, discuss **one** reason why the 'Big Six' energy firms have seen combined annual profits rising to £15 billion since 2009. Illustrate your answer with a cost and revenue diagram. (8)
- \*(c) Discuss problems faced by regulators when investigating an issue of 'tacit collusion' (Extract 2, line 25). (12)
- \*(d) Assess the case for creating an 'effective market where competition is the downward pressure on prices' (Extract 2, lines 6–7), rather than price cap regulation. (16)



(a) With reference to the information provided, what market structure best describes the supply of household energy in the UK?

(4)

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(b) Using the information provided, discuss **one** reason why the ‘Big Six’ energy firms have seen combined annual profits rising to £15 billion since 2009. Illustrate your answer with a cost and revenue diagram.

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\*(c) Discuss problems faced by regulators when investigating an issue of 'tacit collusion' (Extract 2, line 25).

(12)

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\***(d)** Assess the case for creating an 'effective market where competition is the downward pressure on prices' (Extract 2, lines 6–7), rather than price cap regulation.

**(16)**

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**(Total for Question 10 = 40 marks)**

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**TOTAL FOR SECTION B = 40 MARKS**  
**TOTAL FOR PAPER = 72 MARKS**



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