Write your name here Surname	Other r	names
Pearson Edexcel GCE	Centre Number	Candidate Number
Economi Advanced Unit 3: Business E Efficiency		conomic
Tuesday 3 June 2014 – N Time: 1 hour 30 minute	•	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 the **all** 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.
- Check your answers if you have time at the end.

P 4 3 3 0 6 A 0 1 3 2

Turn over ▶



# 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	Dairy Crest Group is a British food producer which uses a large amount of milk in its production processes to make dairy products. In March 2013, Dairy Crest Group bought Proper Welsh Milk, a firm which specialises in selling fresh milk. This takeover could lead to advantages of			
			(1)	
	A	horizontal integration		
	В	backward vertical integration		
	C	forward vertical integration		
	D	conglomerate integration		
	E	external economies of scale		
	An	nswer		
	Ex	planation	(3)	
			(3)	

(Total for Question 1 = 4 marks)

2	A cherry grower finds it impossible to influence the market price of her produce. Which of the following conditions would most clearly indicate that she operates in a perfectly competitive market?	(1)
	A She produces at an output at which marginal cost is less than marginal revenue	
	B Marginal cost is equal to total cost at every level of output	
	C Marginal cost is equal to average cost at every level of output	
	<b>D</b> She produces at the same output in the short run as in the long run	
	E Average revenue equals marginal revenue at every level of output	
	Answer	
	Explanation	(3)
		(5)
	(Total for Question 2 = 4 ma	rks)



3	ma the	e management at a famous football club aim to promote the firm's success in atches as their primary objective. The firm's shareholders indicate at a meeting that bey will accept low dividends on their shares on the condition that the club invests new players. This indicates that the	(1)
	Α	management is aiming for short-term gains in share prices	
	В	management is profit satisficing	
	C	management is profit maximising in the short run	
	D	firm cannot make supernormal profits in the long run	
	E	average variable cost of players is equal to the marginal revenue gained from their employment	
	An	swer	
	Exp	olanation	(3)
		(Total for Question 3 = 4 ma	rks)



**4** The table gives weekly information about the possible short run output, costs and revenue of a firm making military equipment. Some cells have been left blank for your own workings.

Output per week	Total revenue (£millions)	Average revenue (£millions)	Total cost (£millions)	Average cost (£millions)	Marginal cost (£millions)
0	0	-	10	-	-
1	40	40		25	15
2	60				9
3	78				18
4	96				44
5	105				54

Which level of weekly output would mean that the firm is sales maximising?

(1)

- **A** 1
- **B** 2
- **C** 3
- **D** 4
- **E** 5

Answer

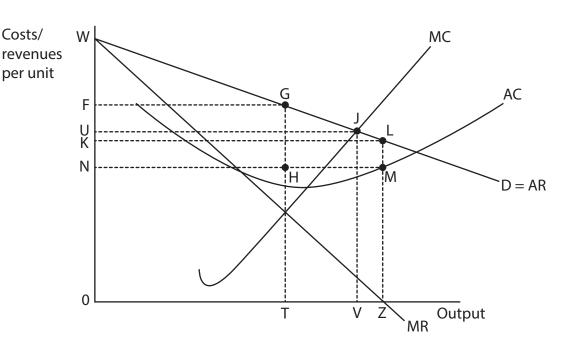
Explanation			(3)
		(Total for Ques	tion 4 = 4 marks)

5	kee	permarkets selling freshly baked bread are operating in an oligopoly. They tend to ep prices stable for a popular, frequently compared product, an 800 gram white f. One reason for this might be	(1)
	A	supermarkets know that the pricing decisions of one supermarket will impact on those of other supermarkets	
	В	supermarkets are independent and base their prices on costs alone	
	C	there is heavy regulation in the industry to prevent tacit collusion	
	D	supermarkets are unable to engage in non-price competition	
	E	if prices were cut by one supermarket then the others would leave prices unchanged	
		swer	
	Exp	blanation	(3)
		(Total for Question 5 = 4 ma	rks)



6	Barr and Britvic are two of the three largest soft drink firms in the UK. In February 2013, the proposed takeover by Barr of Britvic was referred to the Competition Commission for investigation. There were likely to have been concerns that the takeover would lead to	(1)
	A economies of scale	
	<b>B</b> an increase in consumer surplus	
	C a decrease in contestability	
	<b>D</b> a reduction in external economies of scale	
	<b>E</b> a signal for more firms to enter the industry	
	Answer	
	Explanation	(3)
*******		
	(Total for Question 6 = 4 m	arks)

7 The diagram shows the costs and revenues for a firm with monopoly power.



Which of the following statements is true?

(1)

- **A** At output T the firm is revenue maximising
- **B** At output V the firm is allocatively efficient
- **C** At output Z the firm is productively efficient
- **D** At profit maximising output the supernormal profits are KLMN
- **E** At output Z the price is zero

Answer

Explanation	
	(3)
	(Total for Question 7 = 4 marks)

8	In March 2013, the government agreed to a £288 million Private Finance Initiative (PFI) hospital contract, to replace the Alder Hey Children's Hospital in Liverpool.	
	What is the most likely reason that a PFI hospital contract was used?	(1)
	<b>A</b> This method would not lead to an immediate increase in government borrowing	
	<b>B</b> Private borrowers can borrow at a cheaper rate than the government can	
	C PFI contracts increase x-inefficiency	
	<b>D</b> It is easy to get out of a PFI contract once agreed	
	<b>E</b> The government has no experience of large-scale building projects	
	Answer	
	Explanation	(3)
	(Total for Question 8 = 4 ma	arks)
_	TOTAL FOR SECTION A = 32 MA	ARKS



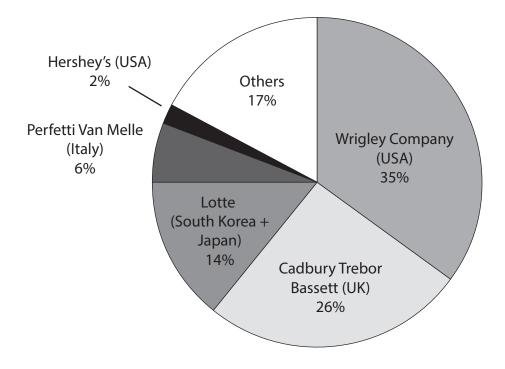
#### Section B: Answer either Question 9 or Question 10.

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

You should spend 55 minutes on this section.

### **9** The chewing gum market

## Figure 1 Global market shares for chewing gum manufacturers



### Extract 1 British designers create non-stick chewing gum that dissolves

Chewing gum is a problem worldwide and has even been banned in some countries. Normal chewing gum is made from synthetic latex, which is resistant to the weather and is strongly adhesive. A piece of gum costs around 3 pence to make, but it costs an estimated 10 pence to scrape it off the pavement using freezing machines, corrosive chemicals or even high-pressure steam hoses. The UK Government currently spends £150 million each year removing chewing gum from the streets using chemicals.

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Recently a non-stick chewing gum that dissolves within just 24 hours has gone on sale in the US. The gum, developed in Britain, contains a special polymer which makes it far less sticky. 'Rev7' has the same taste and texture as normal chewing gum, but is water soluble and can be easily removed from clothes using soap and water. This ability to retain water also results in a longer lasting flavour which improves the experience for consumers. It is also more effective when used as a nicotine gum, designed to help smokers give up cigarettes, because it releases the nicotine in a more controlled way. Tests show that most of the gum can be removed by conventional street cleaning. Any gum washed into the drains will degrade into minerals, biodegradable products and inert materials.

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Designer Terry Cosgrove, a scientist at Bristol University, said: "The motivation to invent the product came from seeing chewing gum on the streets in this country and in America. It's everywhere. The materials developed can be used for lots of other uses such as anti-graffiti paint and bacterial protection. But because chewing gum is such an enormous problem at the moment we decided to target this as our main area. This is like a dream come true for me, seeing academic research result in a real commercial product." He reportedly offered the product design to Wrigley's, the current market leader in chewing gum, but no agreement was made.

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Instead, Revolymer was set up in Wales in 2005 based on technology developed by Cosgrove at the University of Bristol. Revolymer was awarded patents relating to the Rev7 polymer technology, and the firm was aided by a grant of £1 million given in 2006 by the Welsh Assembly Government and the South West Regional Development Association to support the development of removable chewing gum. "There are also several other exciting ventures in the pipeline" said Cosgrove.

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(Sources: adapted from www.telegraph.co.uk 5 October 2010 and www.revolymer.com/history March 2013)

#### Extract 2 Rev7 is withdrawn from US market

Revolymer is to stop directly selling its 'Rev7' confectionery gum in the US at the start of 2013. The US gum market as a whole is shrinking and there is a challenge to Revolymer's patent for nicotine gum products by other gum manufacturers. The firm said the shut-down of sales of Rev7 in the US is set to incur a one-off cost of £360 000 but the annual cost base of its US operation is £500 000 which it said would not be incurred in the future.

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Its Rev7 gum has recently been launched in Ireland in partnership with the Topaz service station network as an initial test market for the rest of Europe.

Revolymer is seeking more commercial partnerships for its nicotine gum. The first product resulting from such a partnership was launched in Canada in 2012. In a statement, Revolymer said: "Management continues to believe that Revolymer's strategy of licensing its technology to commercialisation partners, rather than seeking to market its own products, will generate significant shareholder value."

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(Source: adapted from www.insidermedia.com 20 December 2012)

(a) Using the data in Figure 1, explain the market structure in the global market for chewing gum.

(4)

(b) Discuss **two** benefits of awarding patents to new products developed by scientists.

(8)

\*(c) Using a cost and revenue diagram, discuss **two** reasons why Revolymer is to stop selling its Rev7 confectionery gum in the US.

(12)

\*(d) Discuss strategies that could be used by existing chewing gum manufacturers in response to the entry of a new competitor such as Revolymer.

(16)



				(4)
Discuss <b>two</b> benefits of av	varding patents to	new products c	leveloped by	
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selling its Rev7 confectionery gum in the US.	(12)
	(12)





*(d) Discuss strategies that could be used by existing chewing gum manufacturers in response to the entry of a new competitor such as Revolymer.	
	(16)



(Total for Question 9 = 40 marks)



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

### 10 Camera retailing



(Source: metro.co.uk)

## **Extract 1 Peter Jones reopens Jessops**

Jessops, the photography retailer, made a surprise return to the high street in March 2013 when Peter Jones, one of Britain's best-known entrepreneurs on the BBC programme *Dragons' Den*, relaunched the chain 11 weeks after it collapsed. Jessops, which was founded in Leicester in 1935, reached shut-down point in January 2013. Jessops suffered both from consumers' shift to buying cameras on the internet and their increased reliance on cameras built into mobile phones. Mr Jones became Chief Executive of Jessops after buying the firm from its administrators PricewaterhouseCoopers. Mr Jones made his money from the telecoms industry and operates some stores for Vodafone and has online retail investments. He has invested £4 million in Jessops and will reopen around 40 shops, far fewer than the 187 shops the retailer had before.

"Britain's high street is fighting back," Mr Jones said as he reopened a refurbished flagship Oxford Street store, adding that shops could compete with online traders if prices are competitive. "Who would not want to buy a camera from expert and enthusiastic staff?" he said. Stores will feature areas to try out products before buying. Customers will be able to create photo albums and take photography courses through the Jessops Academy. Staff will also turn photos into calendars and posters while you wait. Mr Jones said companies such as Apple had proved that customers would spend time and money in a welcoming environment with quality staff in busy locations. "It is very Apple-ish. We have learnt from other retailers, I believe Jessops is an iconic British brand which can lead the retail resurgence on Britain's high streets, powered by new innovations and world-leading, expert staff" he said. "Image is everything and, even in the mobile and tablet era, there's no substitute for a quality camera when it comes to taking the perfect picture."



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Mr Jones has reduced fixed costs from £8 million to £1.5 million by cutting administration costs, closing stores and further rationalisation. Jessops will have outlets in centres such as London, Birmingham, Manchester and St Albans, with six opening immediately. Jessops will hire as many as 500 staff and many are drawn from the 1 400 who lost their jobs when it collapsed. "A lot contacted me on Twitter and asked for a job and it's great to have them," said Mr Jones.

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Prices will be matched to those of Jessops.com and Mr Jones said it would be "competitive" with other online retailers such as Amazon. "We will make our profit margin on the accessories," he said. He said "click and collect" would be a powerful driver of sales and Jessops promised greater integration with its online presence, including an option to collect internet orders at store. "I think Amazon will start to lose their market share because they do not have a collect at store. Nobody likes

waiting in for a delivery."

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Mr Jones forecasts sales of more than £80 million in his first year and expects to take some 15% of the digital single lens reflex camera market in the UK. Revenue before Jessops shut was £304.6 million, but the firm is said to have made a loss of £12 million in the fifteen months up to its closure.

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More than 10 000 jobs have been lost in retail this year as chains such as HMV and Republic have fallen into administration. However, Mr Jones is not the only person to see potential in the high street despite flat retail sales. Sports Direct bought fashion chain Republic while Gordon Brothers Europe, the private equity firm, this week bought Blockbuster UK, the entertainment group, out of administration and will keep half its 528 stores open, claiming it can "bring new life" to them.

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(Source: adapted from By Andrew Bounds FT.com 28 March 2013, www.ft.com/cms/ and www.thisisleicestershire.co.uk)

(a) Using examples from the data, explain what is meant by a 'shut-down point' (Extract 1 line 4).

(4)

(b) Using the data in Extract 1 and an appropriate diagram, discuss why Jessops was making a loss before it went into administration.

(8)

\*(c) To what extent is price discrimination possible for firms selling products both on the internet and in high street shops?

(12)

\*(d) Discuss strategies, apart from price discrimination, that high street retailers might use to increase profit in the face of greater competition from online retailers.

(16)



(Extract 1 line 4).	(4)
	( = /
) Using the data in Extract 1 and an appropriate diagram, discuss why Jessops was	;
o) Using the data in Extract 1 and an appropriate diagram, discuss why Jessops was making a loss before it went into administration.	
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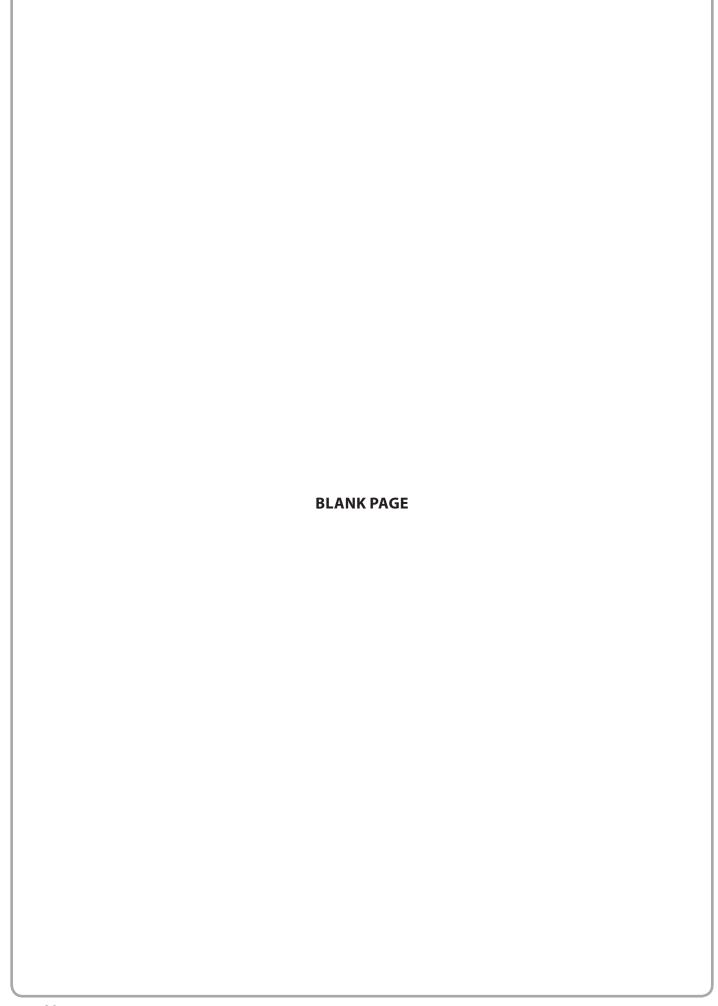

use to increase profit in the face of greater competition from online retailers.	(16)






(Total for Question 10 = 40 marks)
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TOTAL FOR SECTION B = 40 MARKS
<b>TOTAL FOR PAPER = 72 MARKS</b>









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