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Pearson
Edexcel GCE

Centre Number

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Economics

Advanced

Unit 3: Business Economics and Economic Efficiency

Tuesday 3 June 2014 – Morning
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 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.

Turn over ►

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- 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)

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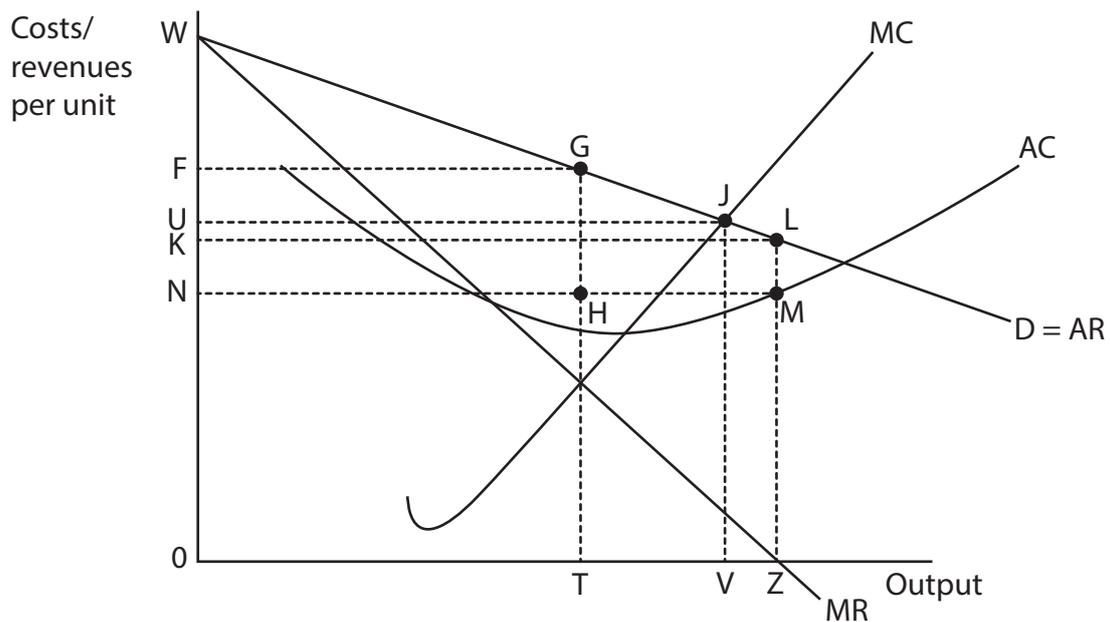
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(Total for Question 4 = 4 marks)



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)

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(Total for Question 7 = 4 marks)



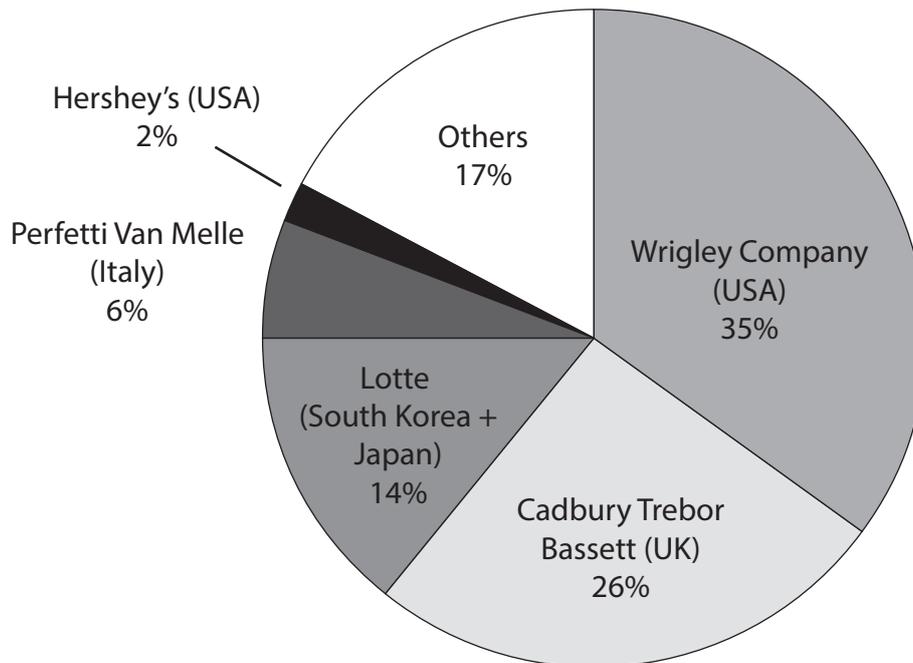
Section B: Answer either Question 9 or Question 10.

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

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.

5

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.

10

15



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.

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.

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

Extract 2 Rev7 is withdrawn from US market

Revolymmer 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.

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.

Revolymmer 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."

(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)



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

(12)

A series of horizontal dotted lines for writing the answer.



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*(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)

A series of horizontal dotted lines for writing the answer.



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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. 5

"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." 15 20



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.

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."

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.

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.

(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)



Handwriting practice area with 20 horizontal dotted lines.



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(Total for Question 10 = 40 marks)

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



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