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Other names

**Pearson**  
**Edexcel GCE**

Centre Number

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# Economics

**Advanced**

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

Thursday 11 June 2015 – 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** 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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2 Several firms have priced tablet computers below the average cost of production. The most likely reason for this pricing policy is to

(1)

- A increase diseconomies of scale
- B increase barriers to entry
- C create a cartel
- D achieve short-term break-even output
- E achieve short-term profit maximisation

Answer

Explanation

(3)

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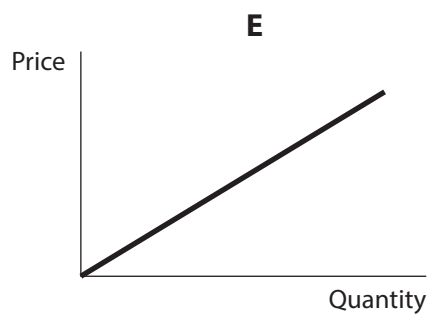
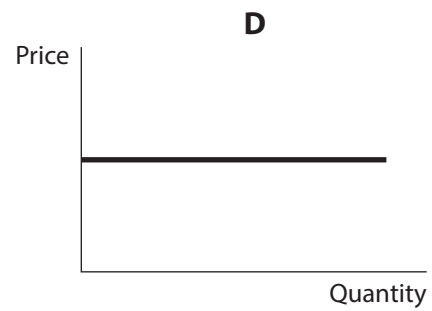
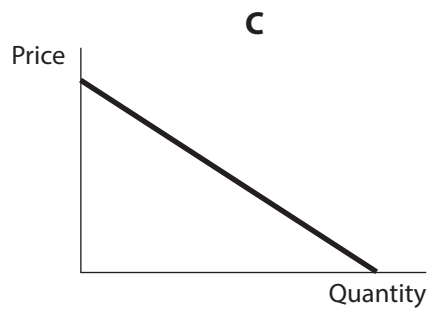
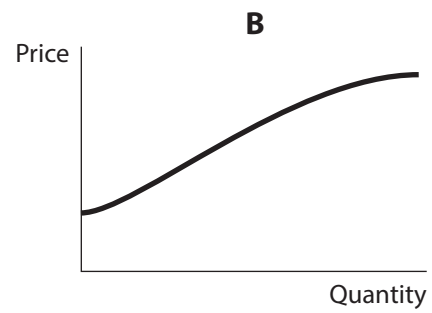
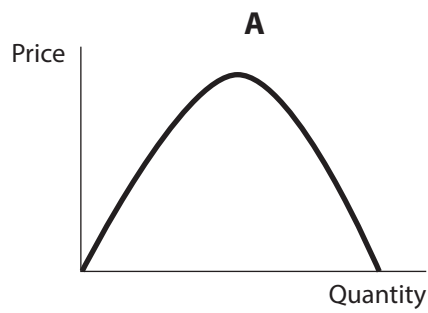
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**(Total for Question 2 = 4 marks)**



3 Which one of the following diagrams could depict average revenue for a firm operating in a perfectly competitive market?



(1)

Answer



Explanation

(3)

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



4 Shoe repairing firms in a large city are providing similar services, and they are making normal profits. Customers tend to be loyal to certain firms. The market structure most resembles

(1)

- A perfect competition in the short run
- B perfect competition in the long run
- C monopsony in the short run
- D monopolistic competition in the long run
- E oligopoly in the short run

Answer

Explanation

(3)

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





- 6 The table below gives the 4-firm concentration ratio in a selection of industrial sectors in the USA.

Sector	4-firm concentration ratio
Food manufacturing	16.8
Metal household furniture manufacturing	27.6
Motor vehicle manufacturing	81.2
Breakfast cereal manufacturing	82.1
Malt manufacturing	91.4
Guided missile and space vehicle manufacturing	95.3

(Source: US census [www.census.gov/prod/ec02/ec0231sr1.pdf](http://www.census.gov/prod/ec02/ec0231sr1.pdf))

What can be inferred from this information?

(1)

- A The metal household furniture sector is more concentrated than the breakfast cereal sector
- B There are no barriers to entry in food manufacturing
- C There are external diseconomies of scale in motor vehicle manufacturing
- D Four firms have significant market power in the manufacture of motor vehicles
- E The guided missile and space vehicle sector is monopolistically competitive

Answer





Explanation

(3)

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







**SECTION B: Answer EITHER Question 9 OR Question 10.**

**If you answer Question 9 put a cross in the box  .**

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

**9 Price fixing in the baby milk powder market**

**Extract 1 Soaring baby milk prices provoke price fixing claim**

Firms producing baby milk powder, known as formula milk, are making huge profits on exports to China. In 2012, the total share of the top five foreign formula milk brands reached 60% of the Chinese market. A climate of panic among parents in China over the safety of domestically produced formula milk was pushing prices ever higher. The competition authorities in China have accused foreign firms of participating in a conspiracy to fix the price of formula milk. They are being investigated for alleged price-fixing and anti-competitive behaviour. 5

Wyeth Nutrition, which Nestlé bought in its \$11.9 billion takeover of Pfizer's baby food business, is accused along with other formula milk producers of "violating anti-monopoly laws via high prices and limited market competition" by the Chinese regulatory authority, the National Development and Reform Commission (NDRC). Wyeth Nutrition has been actively co-operating with NDRC's review of the industry, a spokeswoman from Nestlé said. 10

Parents, fearful that the local formula milk products may be counterfeit or otherwise tainted, go to extreme lengths to buy imported formula milk. This follows the scandal in 2008 when melamine, in domestically produced formula milk, killed six babies and caused sickness in 300 000 others. A tin of foreign-made formula milk that sells for £10 in Britain retails for as much as £30 in China. A flourishing black market has led to tins of milk powder being smuggled in from Europe and sold online. Prices have risen by 30% since 2008. "People are willing to pay that amount for a product from a brand they trust to have better safety, particularly when it involves children and babies," said James Roy, a senior analyst. He said that consumers are unhappy and that the government is responding by exerting pressure. He thought it unlikely that the companies were engaging in real price fixing. 15 20

(Source: *The Times*, 3 July 2013)



## Extract 2 Fines on foreign formula milk producers

China has temporarily banned some imports of formula milk. In August 2013, China's price regulator imposed fines equivalent to £71 million on five foreign formula milk producers following an investigation into price fixing.

Analysts said the investigation into formula milk pricing was part of a broader Chinese plan to boost consumption of local formula milk products. But they said the fines were unlikely to damage the reputation of the affected companies. If anything, foreign formula milk producers might increase their market share because of the price cuts resulting from the investigation. 5

"It will have an impact on domestic brands over the long term as the prices of high-end premium brands come down. Customers will tend to buy the foreign brands as the price gap between domestic and foreign brands narrows," said Jacqueline Ko, an analyst at Maybank Kim Eng Research. 10

Fonterra, one of the companies fined, said it would give additional training to sales staff and review its distributor contracts in the wake of its fine. "We believe the investigation leaves us with a much clearer understanding of expectations around implementing pricing policies," said Kelvin Wickham, a senior executive of Fonterra. 15

"There have been some small [price-fixing] cases previously, but nothing of this scale," said one lawyer who defended a company involved in the investigation. "There is real political momentum behind this. Inflation and product safety are at the top of the government's agenda." As China's economic growth rate threatens to slow below the official target of 7.5%, the Chinese government is concerned about growing public anger over the price and quality of essential goods and services such as formula milk. 20

(Source: <http://uk.reuters.com/article/2013/08/07/uk-china-milkpowder-idUKBRE97602U20130807> and <http://www.ft.com/cms/s/0/d40bda56-ff06-11e2-97dc-00144feabdc0.html?siteedition=uk#axzz2g1t7sgtP>)

## Extract 3 Chinese government to give \$4.9bn to domestic formula milk producers

Chinese formula milk producers, including Inner Mongolia Yili Industrial Group and China Mengniu Dairy, are set to get 30-billion yuan (\$4.9 billion) in official funds to support mergers. The plan is to reduce the number of domestic formula milk producers in the highly fragmented market over the next five years from 200 to 50. This will create stronger sector leaders to increase the ability of companies to compete with international rivals who dominate the premium end of China's \$12.4bn formula milk market. 5

Chinese formula milk firms would gain the support in the form of government subsidies, funds from China Development Bank and favourable tax policies, the China Business Journal said. The total amount would be about 30-billion yuan, it said. 10

(Source: <http://www.bdlive.co.za/world/asia/2013/09/23/state-to-give-chinese-milk-powder-makers-4.9bn>, September 23 2013, 09:05)



- (a) With reference to Extract 3, explain the type of integration involved between domestic formula milk producers in China. (4)
- (b) With reference to Extract 3 and your own knowledge, examine the likely impact of government subsidies on the profits of Chinese formula milk producers.  
Use a cost and revenue diagram in your answer. (8)
- \*(c) Discuss why 'price-fixing and anti-competitive behaviour' by foreign formula milk producers in China may have been possible (Extract 1, line 7). (12)
- \*(d) Evaluate the likely impact of the '£71 million' fines (Extract 2, line 2) on the price and availability of high quality formula milk. (16)









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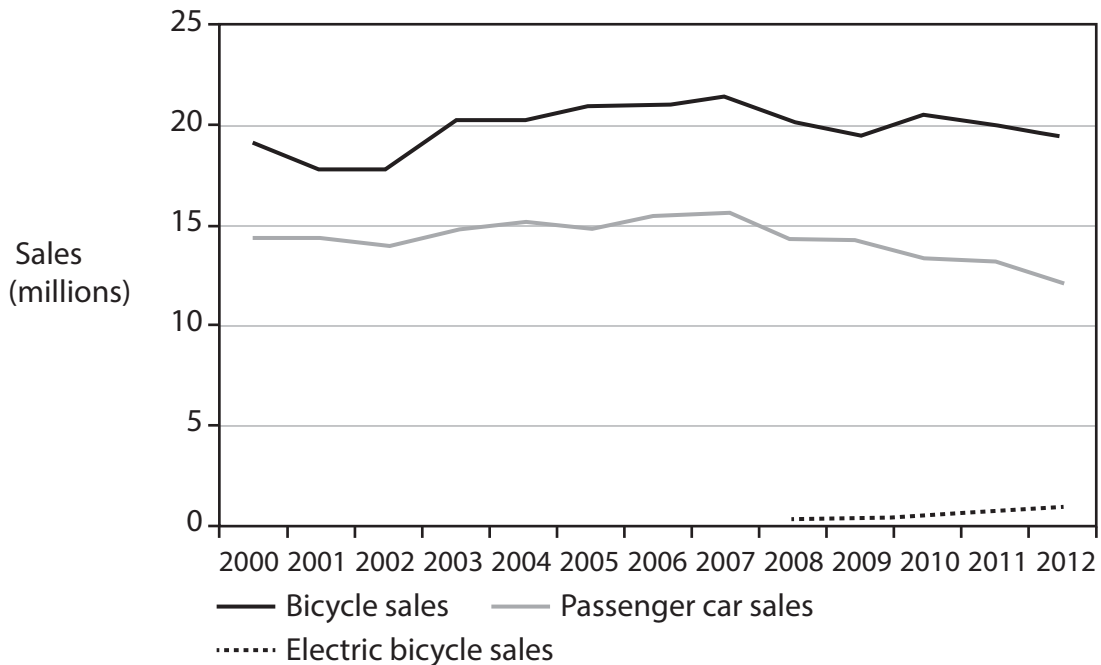
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**QUESTION 10 BEGINS ON THE NEXT PAGE.**



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

## 10 Electric bicycles (e-bikes)

Figure 1 EU trends in Bicycle sales, passenger car sales and electric bicycle sales



### Extract 1 Changing trends in private car and bicycle use in the EU

Electric bicycles (e-bikes) use batteries to add to a rider's own efforts with top speeds of up to 40kph.

Navigant Research, a market research company, sees trends that would suggest a possible correlation between increasing sales of e-bikes, as well as rentals, and declining car sales.

5

For every car sold in the EU, almost two bicycles are sold. E-bike sales are growing by 22% a year while car sales are declining by 2%.

The market for e-bikes is likely to grow to between 1.0 million and 1.2 million units in 2013. But the question remains: does this mean that Europeans are shunning cars for bicycles and e-bikes?

10

(Source: <http://evworld.com/news.cfm?newsid=30212>)





## Extract 2 Downhill all the way

Electric cars are expensive and they stop dead if not recharged. These problems explain why the demand for electric cars remains low. E-bikes on the other hand can still be pedalled without a charged battery and are increasingly affordable. Faster e-bikes with more sophisticated electronic controls, such as those popular in China, may also be gaining ground.

5

In the Netherlands one bicycle in six sold is an e-bike. In Germany the cycle industry expects e-bike sales to grow by 13% in 2013, to 430 000 and to account for 15% of the market. In France sales of traditional bicycles fell by 9% in 2012 while those of e-bikes grew by 15%.

As more people move to cities, e-bikes are catching on, helping to reduce problems of parking, transport costs and global warming. China buys most of them and makes even more, with European sales of 1.5 million in second place. The global market is expected to be 40 million in 2015.

10

(Source: <http://www.ft.com/cms/s/0/9ecf3158-e536-11e0-bdb8-00144feabdc0.html#ixzz2glhjny30>)

## Extract 3 Global electric bike sales in high gear

Growing e-bike sales are turning bicycle manufacturers, long viewed as unexciting companies, into firms worth investing in. The market for bicycles has been mature for years. That started to change in 2008, as the new generation of e-bikes was launched. The smaller batteries and attractive designs began luring older customers away from push bikes.

5

"Over 90% of e-bike sales are to people over age 50, but I see the age slowly coming down, and more men buying," said Karel van Waselaer, CEO at Gazelle, a Dutch manufacturer. While there are e-bike specialists, such as Switzerland's Biketec and Germany's Sachs, most traditional brands are coming out with e-bike lines as well, for example, the major US bicycle manufacturer Cannondale introduced its own e-bike line in 2013.

10

E-bike specialists have not yet begun to squeeze out small competitors on price, largely because almost all brands source their electrical components such as batteries from the same few suppliers, chiefly Shimano of Japan and Germany's Schramm. "The battery is 25% of the total price of the e-bike," said Patrick Langley of industry research firm GFK.

15

(Source: <http://www.ft.com/cms/s/0/9ecf3158-e536-11e0-bdb8-00144feabdc0.html#axzz2glcm2IAW>)



P 4 4 8 9 2 A 0 2 5 3 6

- (a) With reference to Extract 3, explain the market structure of batteries used in the manufacture of e-bikes. (4)
- (b) With reference to the information provided, examine the likely impact of the increase in demand for e-bikes on the profits of bicycle manufacturers.  
Use a cost and revenue diagram in your answer. (8)
- \*(c) With reference to the information provided, discuss pricing and non-pricing strategies that e-bike manufacturers might use to increase sales. (12)
- \*(d) Discuss the level of contestability in the e-bike market. (16)





(b) With reference to the information provided, examine the likely impact of the increase in demand for e-bikes on the profits of bicycle manufacturers.

Use a cost and revenue diagram in your answer.

(8)

Area for drawing a cost and revenue diagram and writing the answer. The area contains horizontal dotted lines for writing.



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\* (d) Discuss the level of contestability in the e-bike market.

(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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