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Other names

**Pearson**  
**Edexcel GCE**

Centre Number

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# Economics

Advanced Subsidiary

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

Tuesday 13 May 2014 – Morning

**Time: 1 hour 30 minutes**

Paper Reference

**6EC01/01R**

**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 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.
- Check your answers if you have time at the end.

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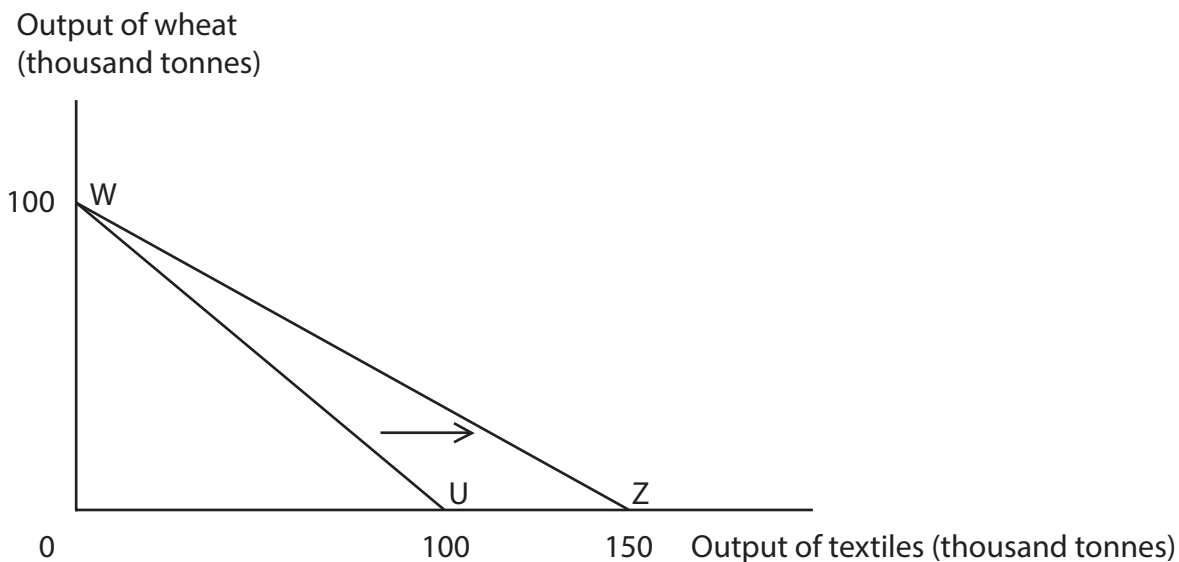
**PEARSON**

## 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



The diagram refers to an economy producing two commodities, wheat and textiles. Initially, the economy has production possibilities shown by WU. The production possibilities then move to WZ. Which of the following does this change show?

(1)

- A Increased demand for textiles
- B A decrease in the production of wheat
- C Increased efficiency in the production of textiles
- D A decrease in the opportunity cost of producing wheat

Answer

2



Explanation

(3)

Area with horizontal dotted lines for writing the explanation.

(Total for Question 1 = 4 marks)



- 2 In Australia the number of motor vehicles produced on average by each worker per year increased from 10 to 18 between 1986 and 2011.

(Source: adapted from <http://www.innovation.gov.au/Industry/Automotive/Statistics/Pages/AutomotiveDataCardTextMarch2013>)

The most likely cause of this trend is an increase in the

(1)

- A cost of producing each motor vehicle
- B level of boredom and staff absenteeism
- C extent of regulation on motor vehicle emissions
- D division of labour in motor vehicle manufacturing plants

Answer



Explanation

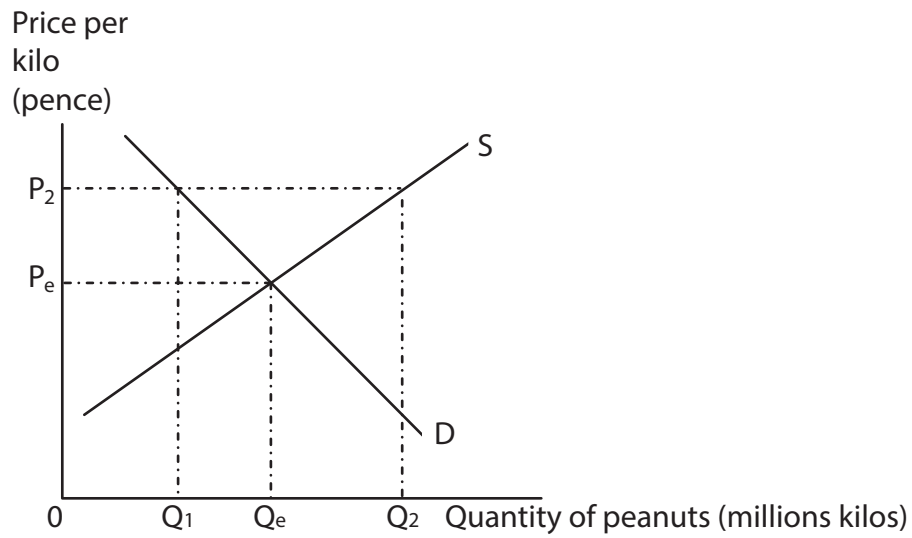
(3)

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(Total for Question 2 = 4 marks)



3



The diagram shows a competitive market for peanuts. Assuming the current price is  $P_2$ , the most likely outcome is the

(1)

- A price will fall
- B supply curve will shift to the left
- C quantity demanded will fall
- D quantities supplied and demanded will remain unchanged

Answer



Explanation

(3)

Area with horizontal dotted lines for writing the explanation.

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







5 Estimates of income elasticity of demand for selected items in Cyprus and the Maldives.

Product	Cyprus	Maldives
Cereals e.g. rice	- 0.2	0.5
Meat	0.5	0.8
Tobacco	0.6	1.0

(Source: <http://www.ers.usda.gov/Data/InternationalFoodDemand>)

NB Figures have been rounded up

It may be deduced from the data in the table that

(1)

- A the demand for tobacco is income inelastic in both countries
- B a 10% increase in income would cause a less than 10% increase in demand for meat in both countries
- C cereals are a normal good in Cyprus but an inferior good in the Maldives
- D the demand for meat is more responsive to changes in income in both countries than the demand for tobacco

Answer

Explanation

(3)

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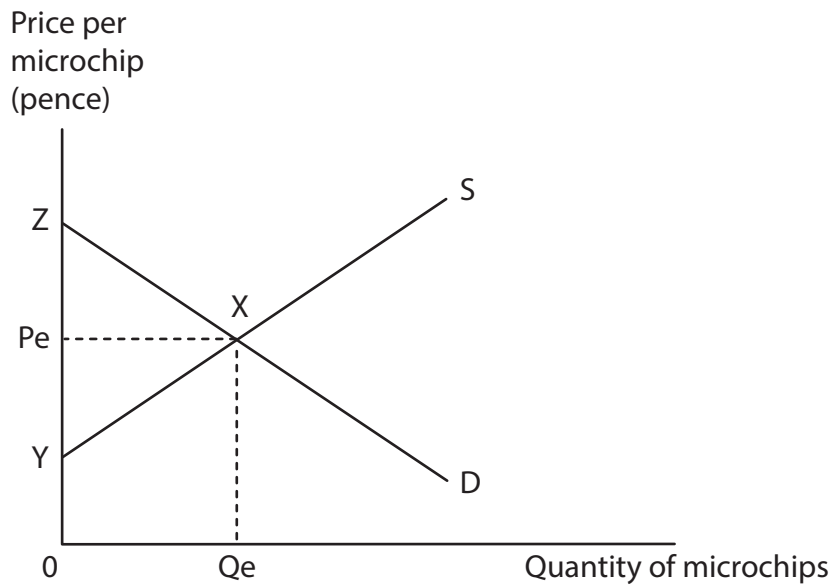
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(Total for Question 5 = 4 marks)



6



The diagram shows the market for microchips where the initial equilibrium price is  $P_e$  and quantity  $Q_e$ . (You may annotate the diagram in your answer.)

A decrease in the production costs of microchips through the development of new technology is most likely to

(1)

- A raise price and decrease producer surplus
- B maintain the existing price and decrease producer surplus
- C maintain the existing price and increase consumer surplus
- D lower price and increase consumer surplus

Answer

Explanation

(3)

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

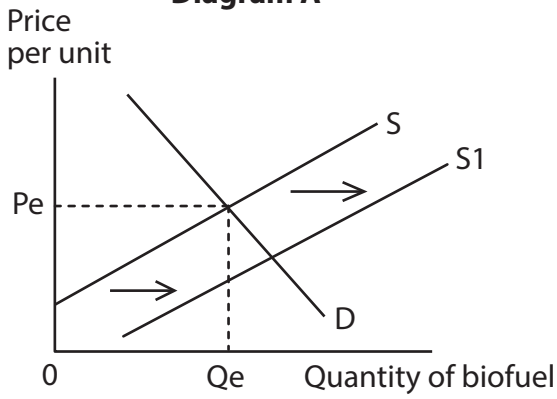


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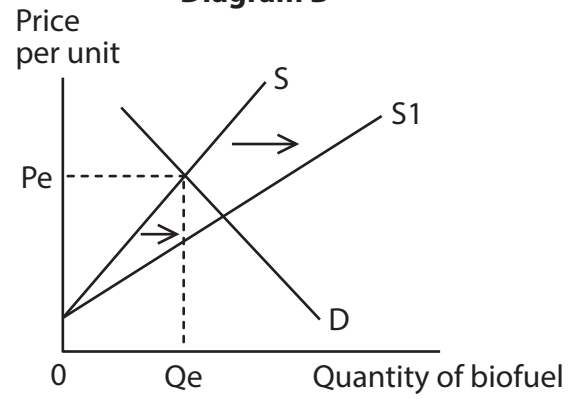


7

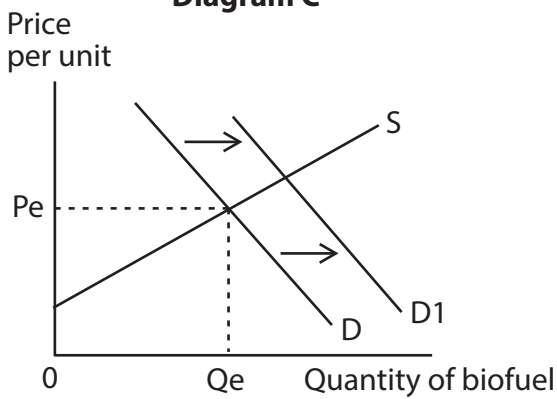
**Diagram A**



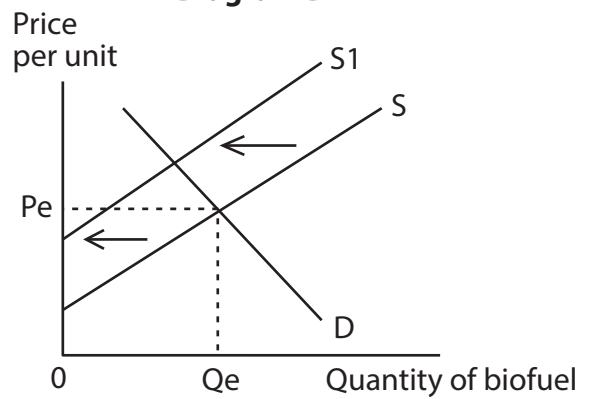
**Diagram B**



**Diagram C**



**Diagram D**



In order to reduce carbon emissions the US Government provides a unit subsidy to the producers of liquid biofuel. Which diagram, **A**, **B**, **C** and **D**, best illustrates the effects of such a subsidy per unit of output? (You may annotate the diagram in your answer.)

(1)

Answer



Explanation

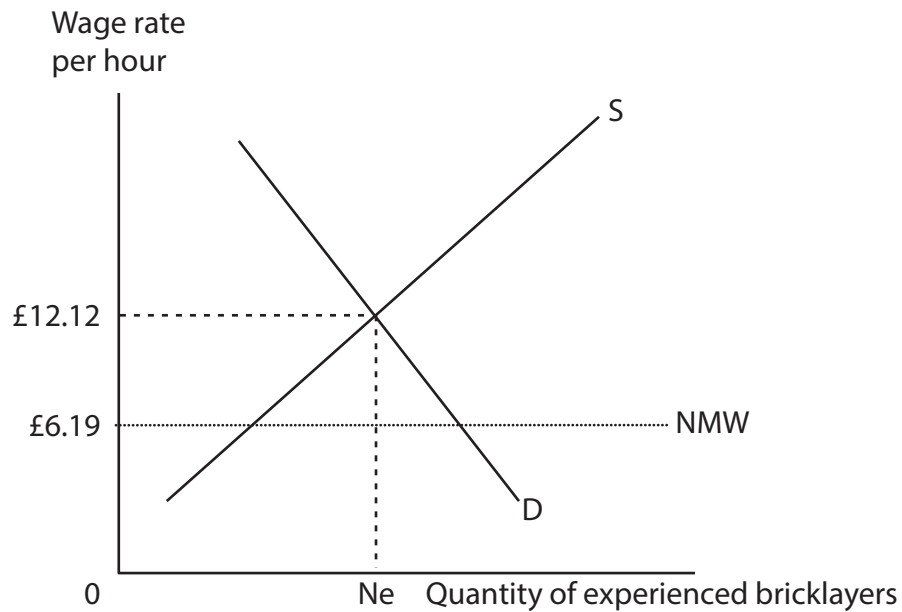
(3)

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**(Total for Question 7 = 4 marks)**



8



(Source: [www.kgbanswers.co.uk/what-is-the-average-day-rate-4-bricklayers-in-south-england/2154854](http://www.kgbanswers.co.uk/what-is-the-average-day-rate-4-bricklayers-in-south-england/2154854))

The diagram shows the labour market for experienced bricklayers in England where the average hourly rate of pay is £12.12.

In October 2013, the National Minimum Wage (NMW) was increased from £6.19 to £6.31 per hour for adult workers. The most likely effect on the market for experienced bricklayers is

(1)

- A an increase in unemployment
- B no change in the equilibrium wage and number of bricklayers employed
- C an outward shift in the supply curve for bricklayers
- D the shortage of bricklayers to increase

Answer



Explanation

(3)

Area with horizontal dotted lines for writing the explanation.

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

**TOTAL FOR SECTION A = 32 MARKS**



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

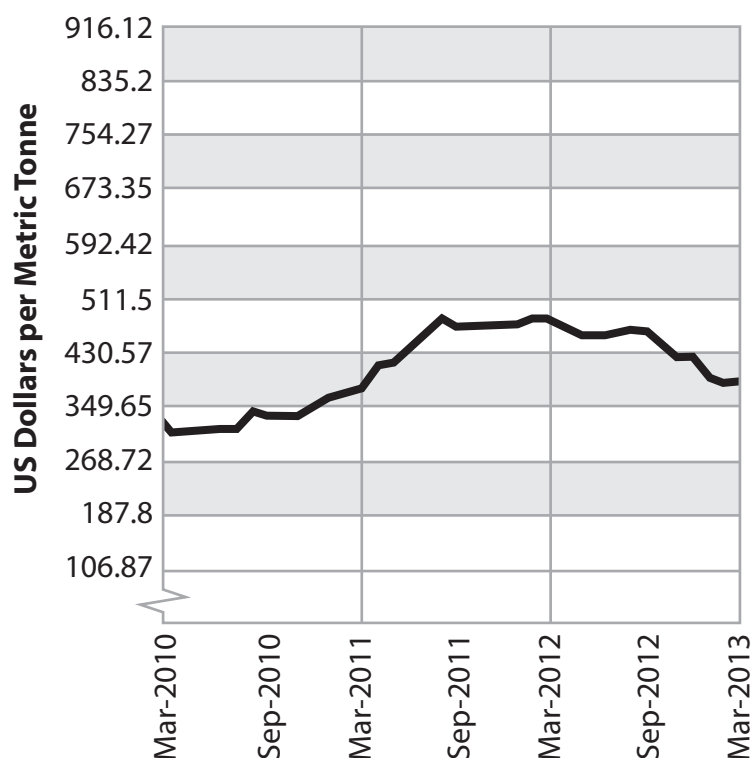
If you answer Question 9 put a cross in this box  .

**Question 10 starts on page 30.**

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

**9 Proposals to develop world's largest potash mine in a National Park**

**Figure 1 The price of potash**



(Source: adapted from Rupert Neate, @ Guardian News and Media Ltd, 1 February, 2013)

**Extract 1 The proposed potash mine in North Yorkshire Moors National Park**

Soaring global demand for potash, a powerful fertiliser used in farming, has pushed its price above \$400 a tonne. This follows pressure from an increasing global population and the more widespread use of intensive farming methods across many countries including Brazil, India and China.

Recent test drilling in the North Yorkshire Moors National Park, by the company Sirius Minerals, has almost doubled the estimated potash deposits from 1.3 billion to 2.2 billion tonnes. Situated a mile below the surface, it is the world's largest deposit of potash. The company has proposed to build a mine to extract the mineral which took millions of years to form from deposits of an ancient sea. Only one potash mine currently operates in Britain and domestic supply cannot meet demand.

5

10

If the mine is developed more than a thousand jobs will be created, many of them highly skilled. Local landowners who own the mineral rights will receive royalty payments in excess of £1 billion (US \$1.5 billion) over fifty years. With an estimated production cost of \$37 a tonne, the mine is likely to be highly profitable even if the price of potash were to halve from its current level.

15





The mine could produce 20 million tonnes of potash a year, most of which would be for export. It could supply all of Britain's potash demand several times over. Britain currently imports potash from Germany and Canada.

### **Extract 2 Environmental impact of proposed potash mine**

The Campaign for National Parks said it was very concerned about the negative environmental impact of locating the potash mine inside a National Park. It believes alternative sites are available outside of the park boundaries. Before work on the mine can begin Sirius Minerals needs to gain approval from the North Yorkshire Moors Park Authority. 5

Research carried out by the North Yorkshire Moors Park Authority claim the mine would damage tourism, leading to a 15% drop in visitor numbers and up to £40 million in lost spending a year.

However, Sirius believe the mine would not adversely affect tourism. Jason Murray, Finance Director for Sirius, believes the high price of potash has made it possible to spend money on reducing the environmental impact of the mine. Most of the operation will be underground, including the transport of the potash through a 28-mile pipeline to a processing plant on the coast. This will greatly reduce the use of lorries to transport the mineral. 10

(Source: adapted from Rupert Neate, @ Guardian News and Media Ltd, 1 February, 2013)



- (a) With reference to Figure 1 and Extract 1, explain why the price of potash increased between March 2010 and March 2012. Use a supply and demand diagram in your answer. (4)
- (b) Analyse why the price elasticity of supply for potash is likely to be low in the short run. (6)
- (c) Using the information provided and your own knowledge, assess the possible problems of fluctuating prices for producers of potash. (10)
- \* (d) Using the information provided and your own knowledge, discuss the case for allowing the potash mining project to go ahead in the North Yorkshire Moors National Park. (14)
- \* (e) Discuss the factors which might influence the supply of labour to the mining industry or another industry of your choice. (14)



(a) With reference to Figure 1 and Extract 1, explain why the price of potash increased between March 2010 and March 2012. Use a supply and demand diagram in your answer.

(4)

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(b) Analyse why the price elasticity of supply for potash is likely to be low in the short run.

(6)

A series of horizontal dotted lines for writing the answer.





Handwriting practice area with 18 horizontal dotted lines.



\*(d) Using the information provided and your own knowledge, discuss the case for allowing the potash mining project to go ahead in the North Yorkshire Moors National Park.

(14)

Dotted lines for writing the answer.



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Handwriting practice area with 25 horizontal dotted lines.



\*(e) Discuss the factors which might influence the supply of labour to the mining industry or another industry of your choice.

(14)

Dotted lines for writing the answer.



Handwriting practice area with 25 horizontal dotted lines.



A large rectangular area with rounded corners, containing numerous horizontal dotted lines for writing.

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



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TURN OVER FOR QUESTION 10**



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

## 10 Bottled water

**Figure 1 UK bottled water market**

Year	Consumption (million litres)	Sales revenue £ million
2008	1970	1360
2009	2010	1400
2010	2025	1420
2011	2070	1490
2012	2135	1610

(Source: adapted from [www.britishsoftdrinks.com/PDF/2013UKsoftdrinksreport](http://www.britishsoftdrinks.com/PDF/2013UKsoftdrinksreport))



### Extract 1 Growth in UK bottled water sales

The consumption of bottled water has continued to grow at a time of falling demand for other types of soft drink such as fruit juices, smoothies and fizzy colas. The growth in demand for bottled water reflects successful promotions and more people trying to follow healthier lifestyles.

The potential for further growth is very positive: annual bottled water consumption per head in the UK is 34 litres, which is far below the West European average of 119 litres. 5

The recycling of bottles and cans has increased rapidly over the past decade; many now contain between 25% and 50% recycled material. Of the bottled water consumed in the UK around 73% is bottled in the UK and 15% comes from France. 10

(Source: adapted from [www.britishsoftdrinks.com/PDF/2013UKsoftdrinksreport](http://www.britishsoftdrinks.com/PDF/2013UKsoftdrinksreport))

### Extract 2 Environmental damage from bottled water

Water is a precious resource. Governments should ensure the sustainability of safe water supplies for the benefit of all people and the natural environment.

The use of bottled water is harmful to the environment. Three litres of water are used directly or indirectly in the production of one litre of bottled water. The majority of bottles are made of plastic and end up in landfill sites rather than being recycled. Furthermore, vast amounts of plastic waste never reach the recycling plants and end up in the oceans, killing fish and birds who mistake it for food. It takes up to a thousand years for plastic to decompose and so the problem is set to get worse. 5

Bottled water is often transported hundreds of miles from its origin to shops and consumers, at considerable carbon cost. By contrast, tap water only takes a little energy to pump along pipelines into homes. 10

Bottled water is also expensive and consumers can pay anything up to 10 000 times more than if they just drank tap water. Studies have shown that tap water is generally just as clean and healthy as bottled water, if not more so. Furthermore, over half of the bottled water in the UK comes from purified tap water. It is time for the government to intervene by increasing the indirect tax on bottled water. 15

(Sources: <http://www.guardian.co.uk/commentisfree/2007/jul/10/timetocapbottledwater?INTCMP=SRCH> and [http://www.sierraclub.org/committees/cac/water/bottled\\_water/bottled\\_water.pdf](http://www.sierraclub.org/committees/cac/water/bottled_water/bottled_water.pdf))



- (a) With reference to Extract 1 and Figure 1, explain the effect on the total revenue of bottled water manufacturers following an increase in demand for bottled water between 2008 and 2012. Use a supply and demand diagram in your answer. (6)
- (b) Explain **two** likely reasons why 'the consumption of bottled water has continued to grow at a time of falling demand for other types of soft drinks' (Extract 1, lines 1 and 2). (4)
- (c) Assess whether the demand for bottled water is likely to be price elastic or price inelastic. (10)
- \* (d) With reference to the concept of external costs, discuss the possible economic effects of an increase in the production and consumption of bottled water. (14)
- \* (e) Evaluate the likely economic effects of an increase in indirect tax on bottled water. Use a supply and demand diagram in your answer. (14)





(a) With reference to Extract 1 and Figure 1, explain the effect on the total revenue of bottled water manufacturers following an increase in demand for bottled water between 2008 and 2012. Use a supply and demand diagram in your answer.

(6)

Dotted lines for writing the answer.



(b) Explain **two** likely reasons why 'the consumption of bottled water has continued to grow at a time of falling demand for other types of soft drinks' (Extract 1, lines 1 and 2).

(4)

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\***(e)** Evaluate the likely economic effects of an increase in indirect tax on bottled water.  
Use a supply and demand diagram in your answer.

**(14)**

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

**TOTAL FOR SECTION B = 48 MARKS**

**TOTAL FOR PAPER = 80 MARKS**



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