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# AS

# ECONOMICS

## Unit 1 Markets and Market Failure

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Monday 16 May 2016

Morning

Time allowed: 1 hour 15 minutes

### Materials

For this paper you must have:

- an objective test answer sheet
- a black ball-point pen
- an AQA 12-page answer book.

You may use a calculator.

### Section A (ECON1/1)

- Answer **all** questions on your objective test answer sheet.
- Use a black ball-point pen. Do **not** use pencil.
- Do all rough work in this question paper, **not** on your objective test answer sheet.

### Section B (ECON1/2)

- Answer **either** Context 1 **or** Context 2.
- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Write the information required on the front of your answer book. The **Paper Reference** is ECON1/2.

### Information

- The maximum mark for this paper is 75.
- There are 25 marks for **Section A**. Each question carries one mark. No deductions will be made for wrong answers.
- There are 50 marks for **Section B**. The marks for questions are shown in brackets.
- You will be marked on your ability to
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.

### Advice

- You are advised to spend no more than 25 minutes on **Section A** and at least 50 minutes on **Section B**.

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**Section A: Objective Test**

Answer **all** questions in **Section A**.

Each question carries 1 mark. No deductions will be made for wrong answers.

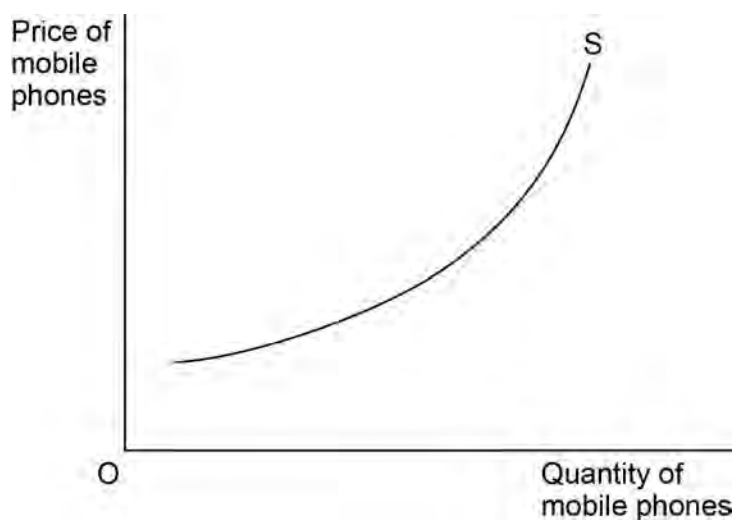
You are advised to spend no more than 25 minutes on **Section A**.

For each question there are four alternative responses, **A**, **B**, **C** and **D**. When you have selected the response which you think is the best answer to a question, mark this response on your objective test answer sheet. If you wish to change your answer to a question, follow the instructions on your objective test answer sheet.

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- 1        A free good
- A    is paid for by the government.
  - B    has zero opportunity cost in its supply.
  - C    has a negative social cost.
  - D    has a perfectly inelastic supply.
- 2        The equilibrium market price can be defined as the price at which
- A    the market for the product clears.
  - B    the price elasticity of demand equals the elasticity of supply.
  - C    producers maximise their profits.
  - D    positive excess demand equals negative supply.

- 3 The diagram below illustrates the industry supply curve for mobile phones.



All other things being equal, the upward slope of the supply curve is due to

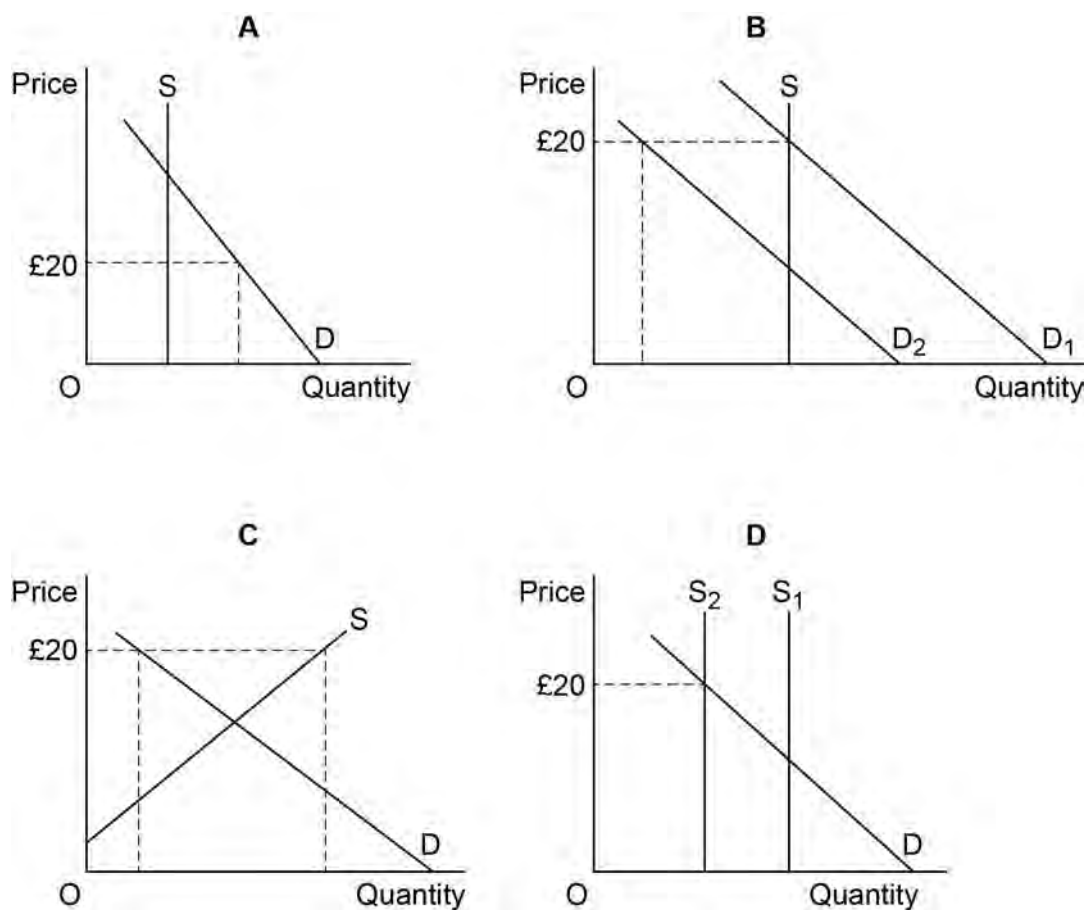
- A the existence of a monopoly in the industry.
  - B higher prices providing a profit incentive for firms to expand production.
  - C the elasticity of supply exceeding the elasticity of demand for mobile phones.
  - D higher prices providing an incentive for firms to increase their productive efficiency.
- 4 The free market equilibrium price for a merit good is £50 per unit. At present, the government does not intervene in the market for this good. The government is most likely to correct the market failure associated with this merit good if it
- A imposes a maximum price of above £50 per unit.
  - B sets a minimum price of £50 per unit.
  - C taxes the free market price.
  - D subsidises the free market price.

**Turn over for the next question**

**Turn over ►**

- 5 The four diagrams below relate to the provision of medical services at a local hospital. The services are currently provided free. It has been suggested that patients could pay £20 each time they receive treatment at the hospital to reduce pressure on its fixed capacity and to reduce waiting times for treatment.

Which one of the diagrams, **A**, **B**, **C** or **D**, best illustrates the effects of such a policy?



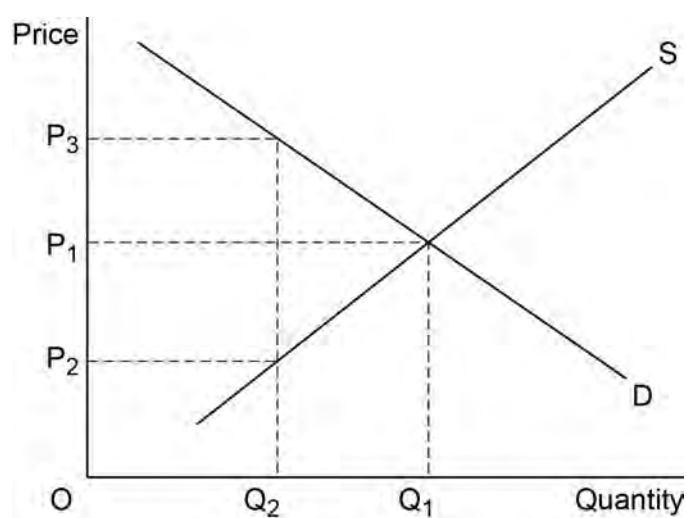
- 6 The table below shows the private and external costs for four products. Which product, **A**, **B**, **C** or **D**, has a market price which takes **least** account of negative externalities?

Product	Private cost per unit of output £	External cost per unit of output £	Market price £
<b>A</b>	10	2	12
<b>B</b>	12	5	15
<b>C</b>	16	7	22
<b>D</b>	22	8	24

7 Which one of the following provides a reason why governments should intervene in a market economy?

- A Small firms are less efficient than large firms due to economies of scale.
- B The existence of free riders will result in the overproduction of public goods.
- C The social benefits of some private goods exceed the private benefits.
- D Private firms are unable to produce merit goods in a free market.

8 The diagram below illustrates the market demand (D) and market supply (S) curves for a good. The production of the good creates a negative externality.



To reduce production and consumption of the good to  $OQ_2$ , the government could impose a

- A price ceiling of  $OP_3$ .
- B tax of  $P_2P_3$ .
- C minimum price of  $OP_2$ .
- D tax of  $P_2P_1$ .

**Turn over for the next question**

**Turn over ►**

9 The table below shows possible sources of market failure in current UK markets.

Which combination of example and policy, **A**, **B**, **C** or **D**, is consistent with the possible source of market failure identified?

	Source of market failure	Example of market failure	Policy to correct market failure
<b>A</b>	Public good	Healthcare	State provision
<b>B</b>	Positive consumption externalities	Education	Minimum price
<b>C</b>	Merit good	Petrol	Indirect taxation
<b>D</b>	Negative production externalities	Electricity generation	Pollution permits

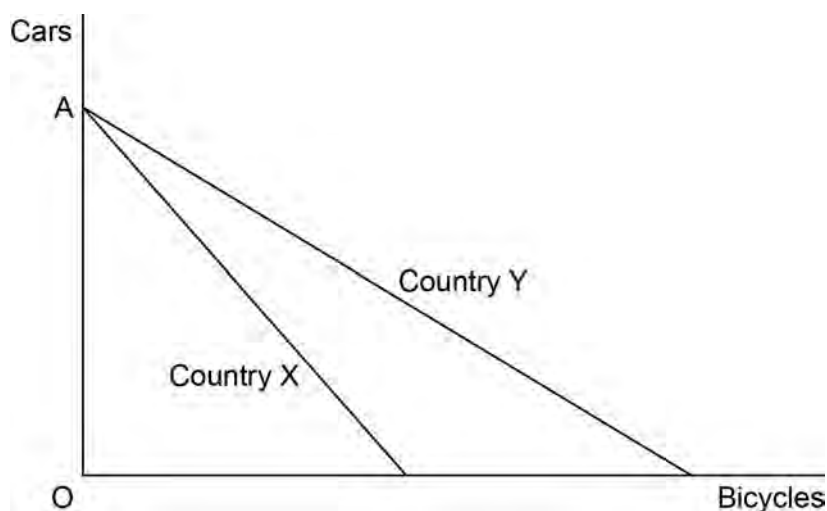
10 All other things being equal, when the equilibrium price of car tyres in a market rises from £60 to £90, the quantity demanded falls from 2 million units to 1.5 million units. Therefore, the value of the price elasticity of demand is

- A +2.5
- B +0.5
- C -0.5
- D -2.0

11 The existence of scarcity in an economy implies that

- A there are no free goods.
- B there are no public goods.
- C individuals must make choices.
- D there has been a misallocation of resources.

- 12 The diagram below shows the production possibility boundaries for Countries X and Y respectively.



The opportunity cost of cars in terms of bicycles

- A** is greater for Country X than for Country Y.  
**B** is greater for Country Y than for Country X.  
**C** increases as more cars are produced.  
**D** increases as more bicycles are produced.
- 13 The table below indicates the average price of furniture as a price index.

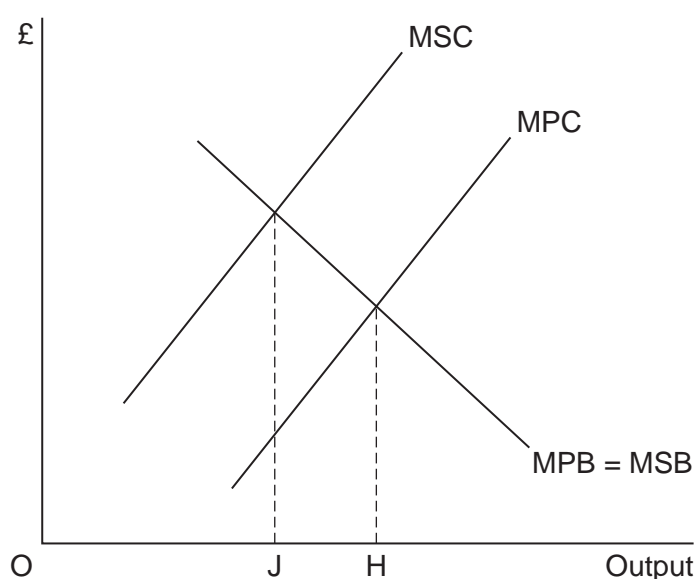
Year	Price index
2011	100
2012	105
2013	120
2014	110
2015	125

Which one of the following can be deduced from the data above?

- A** The price of furniture rose throughout the whole period 2011 to 2015.  
**B** Compared with 2015, the price of furniture was 20% cheaper in 2011.  
**C** Revenue from the sale of furniture fell in 2014.  
**D** Between 2013 and 2014, the price of furniture fell by 10%.

Turn over ►

- 14 Which one of the following is the most likely disadvantage that may arise from the growth in the size of a firm?
- A Increased division of labour reduces productivity
  - B An increase in the size of the marketing budget
  - C The need to purchase components in large quantities
  - D Problems in coordinating different parts of the business
- 15 The diagram below shows the marginal private and social benefit (MPB and MSB) curves and the marginal private and social cost (MPC and MSC) curves for a good which generates negative externalities in production.



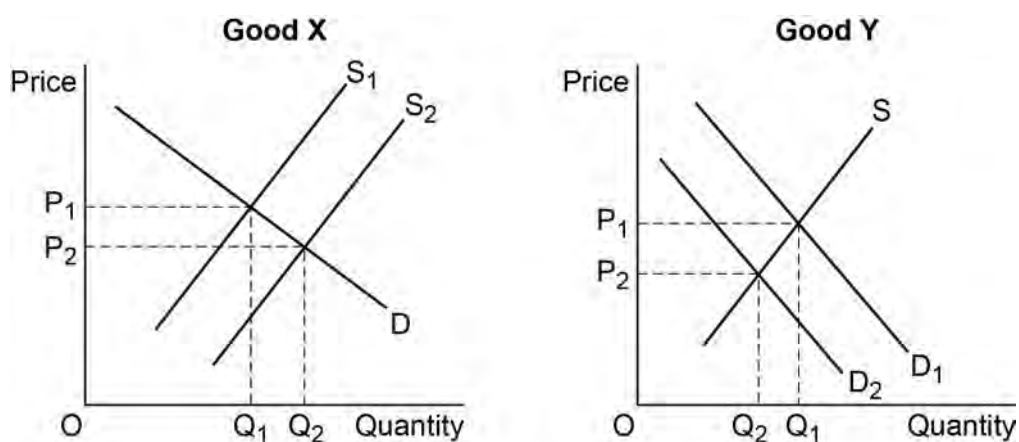
In the absence of government intervention, a misallocation of resources is likely to occur because

- A there is underconsumption of JH.
  - B market output is too low.
  - C market price is too high.
  - D there is overproduction of JH.
- 16 A firm is productively efficient when
- A it is operating at the lowest point on its average cost curve.
  - B it cannot increase current production even if the demand for its products increases.
  - C output per worker cannot increase.
  - D an increase in production will decrease average costs.



- 17 The use of money as a medium of exchange enables an economy to
- A operate outside its production possibility boundary.
  - B increase the production of public goods.
  - C prevent market failure.
  - D benefit from specialisation and the division of labour.

- 18 The two diagrams below show the markets for Goods X and Y.



The markets are initially in equilibrium at  $P_1$  and  $Q_1$ . If the supply of Good X increases and both markets move to a new equilibrium at  $P_2$  and  $Q_2$ , it may be concluded that Goods X and Y are in

- A competitive demand.
  - B derived demand.
  - C composite demand.
  - D joint demand.
- 19 Which one of the following combinations, **A**, **B**, **C** or **D**, is most likely to increase a firm's monopoly power?

	Barriers to entry	Product differentiation
<b>A</b>	Increase	Decrease
<b>B</b>	Increase	Increase
<b>C</b>	Decrease	Increase
<b>D</b>	Decrease	Decrease

Turn over ►

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- 20** An indirect tax on the production of a good will have no effect on its market price if demand is
- A** inversely related to price.
  - B** unit elastic.
  - C** perfectly elastic.
  - D** perfectly inelastic.
- 21** Complete market failure exists when
- A** there are negative externalities in production.
  - B** the free market fails to provide sufficient merit goods.
  - C** the free market underprices demerit goods.
  - D** there is a missing market in the provision of public goods.
- 22** The cross price elasticity of demand for two products which are close substitutes for each other will be
- A** high and positive.
  - B** low and positive.
  - C** low and negative.
  - D** high and negative.
- 23** The size of a firm increases. As a result, its long run average costs fall because the firm utilises its factory more efficiently and the advertising cost per item decreases. Therefore, the firm experiences
- A** technical and marketing economies of scale.
  - B** purchasing and marketing economies of scale.
  - C** financial and purchasing economies of scale.
  - D** financial and technical economies of scale.

- 
- 24** If the consumption of a product results in a negative externality, it follows that
- A** an optimum allocation of resources can never be achieved.
  - B** non-consumers benefit at the expense of consumers.
  - C** an optimum allocation of resources can be achieved by placing a tax on the product.
  - D** social benefits of consumption exceed social costs.
- 25** Which one of the following is most likely to be a reason for government failure?
- A** The negative externalities that result from the production of some goods and services
  - B** The difficulties in determining the true social costs and benefits of merit goods
  - C** Missing markets for public goods and merit goods
  - D** Excessive consumption of demerit goods

**QUESTION 25 IS THE LAST  
QUESTION IN SECTION A**

**On your answer sheet  
Ignore rows 26 to 50**

**Turn over for Section B**

**Turn over ►**

## Section B: Data Response

Answer **either** Context 1 **or** Context 2.  
You are advised to spend at least 50 minutes on **Section B**.

**Total for this Context: 50 marks**

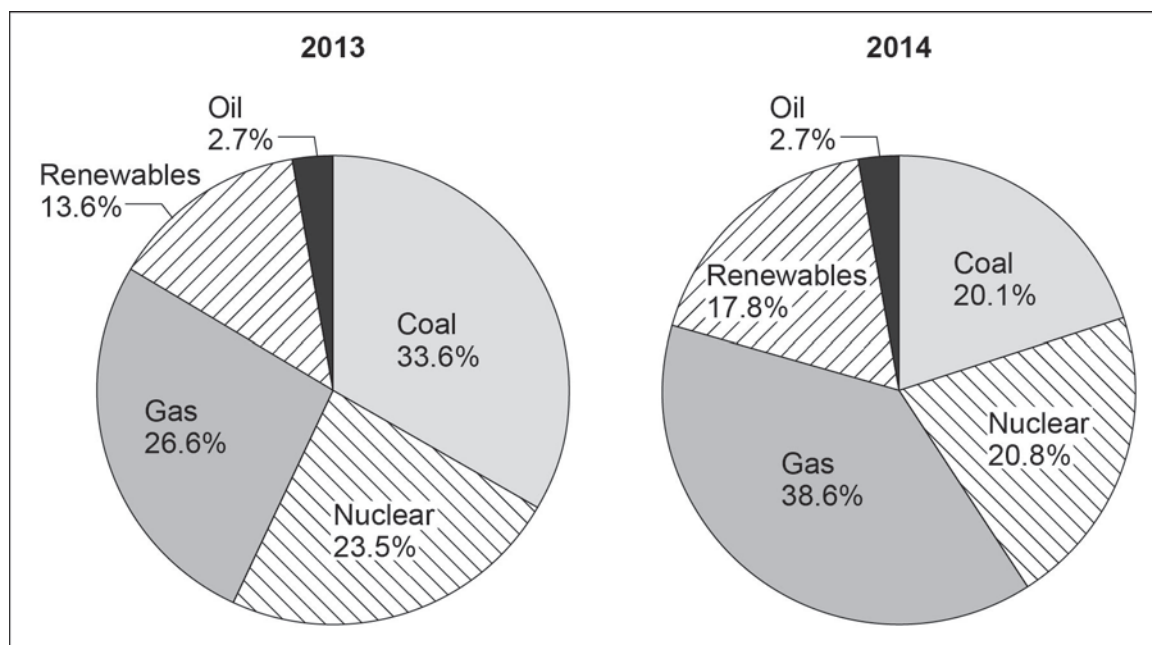
**Either**

**Context 1**

### UK ENERGY MARKETS – CHANGING THE ENERGY MIX

Study **Extracts A, B and C**, and then answer **all** parts of Context 1 which follow.

#### Extract A: Contribution to UK electricity production by fuel type, 2013 and 2014



Source: Energy Trends Statistics: Electricity Generation – Department of Energy and Climate Change

#### Extract B: Power to the people

In 2013, overall energy consumption in the UK was the lowest since 1985. Yet there is much more that can be done to reduce the reliance on non-renewable energy from fossil fuels, such as natural gas, oil and coal. The United Nations recommends that fossil fuel use should end by the year 2100. However, resources continue to be depleted and the environment degraded as economic agents do not consider the external costs of their actions. 1  
5

As a result, it can be argued that the price of non-renewable energy is too low and that the signalling and rationing functions of price have broken down. However, other economists believe that energy prices are too high, and are forcing some low-income households to spend a disproportionate amount of their incomes on heating and power. They argue that increased competition in energy markets would lead to reduced prices for consumers. 10

Whatever the reason, many believe that it is vital for more energy to be generated from renewable sources, such as wind, wave and solar power.

Source: News reports, January 2015

**Extract C: Wind, waves and sunshine**

The UK is recognised as having the best wind resources in Europe and a recent report stated that, in 2013, wind power saved the UK £579m in fossil fuel costs. Even so, wind energy contributes only a small part of the UK's electricity requirement due to its large initial capital costs and uncertainty regarding future government support.	1
Recently, the Scottish firm, Pelamis Wave Power, a leader in marine energy technology, closed down. Quite simply, it did not have the vast sums of money required to develop the technology further in order to supply electricity in large quantities. However, there is more optimism in Wales, where a private firm, Tidal Lagoon Power Limited, has already secured large amounts of financial support from two financial institutions. It is believed that the project, off the Swansea coast, could produce enough energy to power a small city.	5 10
Even when firms do have an incentive to join a market, there are barriers to entry. For example, in the north-west, a firm has submitted a planning application to erect up to 20 000 solar panels in the countryside. Many believe that solar is a less environmentally-damaging source of energy, yet the scheme has received numerous objections from local residents. Perhaps markets would work better if such restrictions were relaxed.	15
An alternative to these 'cleaner', renewable forms of energy is fracking, where water and chemicals are injected into rocks below the earth's surface to extract shale gas. However, this is a hugely controversial form of energy creation, and the likely benefits of a cheaper energy supply and more jobs need to be weighed carefully against the potential damage to the environment, including the possibility of earth tremors. If fracking goes ahead, tough regulation is likely to be required.	20

Source: News reports, January 2015

- 0 1** Define the term 'external costs' (**Extract B**, line 5). **[5 marks]**
- 0 2** Use **Extract A** to identify **two** significant **differences** in the contribution to electricity production by various fuel types between 2013 and 2014. **[8 marks]**
- 0 3** **Extract C** (lines 20–21) states: 'If fracking goes ahead, tough regulation is likely to be required.'
- Using a diagram to help you, explain why regulation of firms involved in the fracking process is likely to be necessary. **[12 marks]**
- 0 4** **Extract B** (lines 11–12) states: 'Whatever the reason, many believe that it is vital for more energy to be generated from renewable sources...'
- Using the data and your knowledge of economics, to what extent do you agree with the view that markets can be relied upon to encourage the development of renewable energy? Justify your answer. **[25 marks]**

Turn over ►

Do **not** answer Context 2 if you have answered Context 1

**Total for this Context: 50 marks**

or

## Context 2

### THE UK CULTURAL ECONOMY – ENJOYING THE BRIGHTER SIDE OF LIFE

Study **Extracts D, E and F**, and then answer **all** parts of Context 2 which follow.

#### **Extract D: Visitor attendance figures for London theatres and selected London museums, in thousands, 2006 to 2013**

	<b>Visitor attendance: London theatres (thousands)</b>	<b>Visitor attendance: selected London museums* (thousands)</b>
2006	12 351	13 391
2007	13 636	13 697
2008	13 892	13 718
2009	14 258	14 718
2010	14 152	15 764
2011	13 915	16 147
2012	13 993	16 257
2013	14 587	18 234

\*Includes the British Museum, the Natural History Museum and the National Gallery

Source: Museums and Galleries: Department for Culture, Media and Sport; Society of London Theatre, January 2015

#### **Extract E: Arts and culture: making life better?**

As news reports focus on seemingly endless problems, it is easy to overlook the brighter side of life. Arts Council England (ACE) is an organisation that ‘champions, develops and invests in artistic and cultural experiences that enrich people’s lives’. ‘In short,’ it says, ‘it makes life better.’	1
Between 2011 and 2015, ACE allocated £1.4 billion of taxpayers’ money, and an estimated £1 billion from the National Lottery, to a range of activities and events, such as those provided by museums, theatres, and music festivals. It can be argued that the social benefits of these activities outweigh the private benefits and, in addition, it is stated that for every £1 invested in arts and culture, up to £6 is generated elsewhere in the economy.	5
Education also has a role to play in enriching people’s lives. Schools provide countless opportunities for children and young adults to experience a variety of cultural and sporting activities.	10
In some towns, local councils have provided licences to enable small businesses, such as bars and cafes, to host ‘live’ entertainment events, with other firms providing sponsorship for the shows. This allows for a more market-based approach. The performers enjoy performing, the firms generate income from the spectating public and the public have a great time. Everybody wins!	15

Source: Arts Council England and News reports, January 2015

**Extract F: If music be the food of love, play on**

One aspect of arts and culture that has seen growing popularity in recent years is music festivals. Faced with falling incomes due to changes in the way consumers obtain music, artists have been forced to tour and perform live more often. Whilst on the one hand new artists have benefited from the removal of barriers to entry, such as the need for a recording contract, once in the industry it has become more difficult to achieve the 'superstar' lifestyle.	1 5
This is of course to the benefit of the many thousands of festival-goers who are able to enjoy a selection of their favourite bands for the price of a single festival ticket. It would cost fans much more to see these artists in separate concerts. However, there are concerns that, with ticket prices rising year on year, some fans are being priced out of the market.	
The price of a ticket to attend one of the most well-known festivals in the UK increased by 130% between 2000 and 2013. A much smaller music festival, held in the north of England, has also seen ticket prices rise, but not as significantly, as it has moved to a larger site. Between 2010 and 2014, the ticket price for the northern festival rose from £85 to £119, during which time the number of tickets on sale increased from 8 000 to 14 000. Here too, the benefits provided by Arts Council England have been seen, as it has contributed money towards the construction of a new stage.	10 15

Source: News reports, January 2015

- 0 5** Define the term 'social benefits' (**Extract E**, line 7). **[5 marks]**
- 0 6** Using **Extract D**, identify **two** significant points of comparison between the visitor attendance figures for London theatres and selected London museums over the period shown. **[8 marks]**
- 0 7** **Extract F** (lines 13–14) states: 'Between 2010 and 2014, the ticket price for the northern festival rose from £85 to £119, during which time the number of tickets on sale increased from 8 000 to 14 000.'
- All other things being equal, calculate the price elasticity of supply of tickets for the music festival held in the north of England between 2010 and 2014 to one decimal place **and** explain the factors that might determine the price elasticity of supply of tickets for this music festival. **[12 marks]**
- 0 8** **Extract E** (lines 2–3) states that Arts Council England is an organisation that 'champions, develops and invests in artistic and cultural experiences that enrich people's lives'.
- Using the data and your knowledge of economics, evaluate the view that providing subsidies is the best way to ensure that sufficient resources are devoted to the arts and cultural activities. **[25 marks]**

**END OF QUESTIONS**

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