



General Certificate of Education
Advanced Subsidiary Examination
June 2012

Economics

ECON1

Unit 1 Markets and Market Failure

Friday 18 May 2012 1.30 pm to 2.45 pm

For this paper you must have:

- an objective test answer sheet
 - a black ball-point pen
 - an AQA 8-page answer book.
- You may use a calculator.

Time allowed

- 1 hour 15 minutes

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 **Examining Body** for this paper is AQA. 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**.

Section A: Objective Test

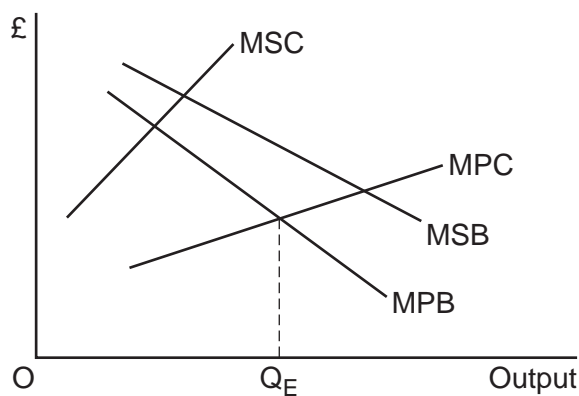
Answer **all** questions in **Section A**.

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.

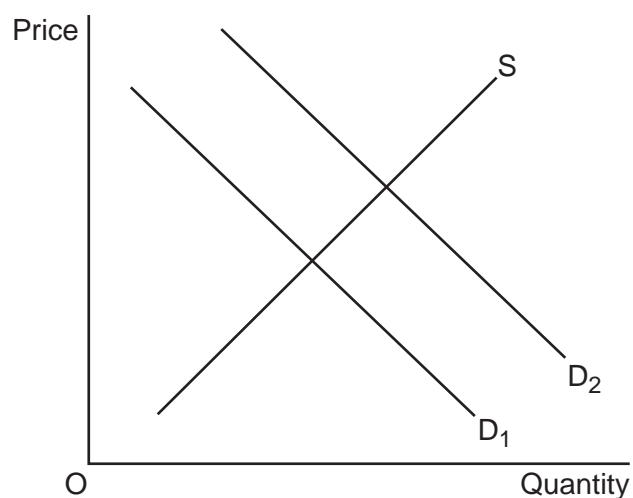
- 1 The central purpose of economic activity is
- A to create maximum profit.
 - B the satisfaction of needs and wants.
 - C to achieve economic efficiency.
 - D to save scarce resources.
- 2 The diagram below shows the marginal private and social benefit (MPB and MSB) curves and the marginal private and social cost (MPC and MSC) curves for a good.



Which one of the following combinations of price and output, **A**, **B**, **C** or **D**, will improve the allocation of resources compared with the market outcome at Q_E ?

| | Price | Output |
|---|--------|--------|
| A | Lower | Lower |
| B | Lower | Higher |
| C | Higher | Lower |
| D | Higher | Higher |

- 3 The diagram below shows the supply (S) and demand (D) curves for a normal good.



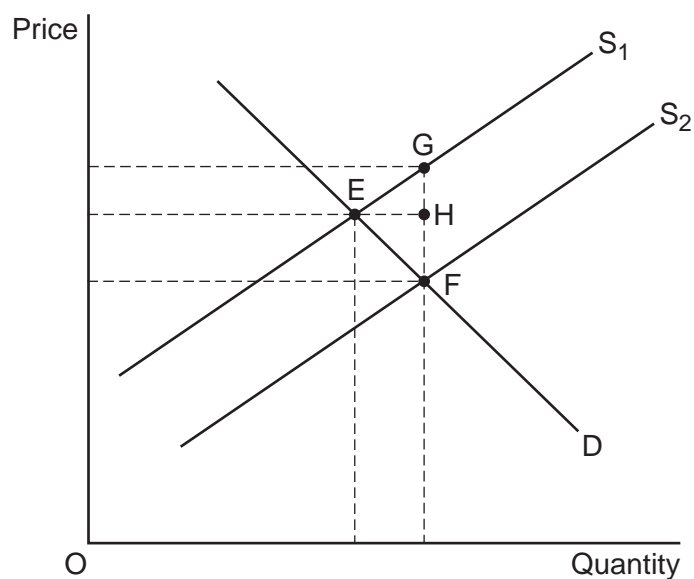
The shift in demand from D_1 to D_2 could have been caused by

- A a decrease in the price of a close substitute.
 - B an increase in the price of a complementary good.
 - C consumers' expectations that the price of the good is about to fall.
 - D an increase in the income of buyers.
- 4 To calculate the percentage change in the quantity supplied of a good following a change in its price, the price elasticity of supply should be
- A divided by the percentage change in price.
 - B divided by the percentage change in quantity.
 - C multiplied by the percentage change in price.
 - D multiplied by the percentage change in quantity.

Turn over ►

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- 5 An economy in which average incomes have fallen by 5% has also seen the demand for holidays overseas fall by 20%. It can be concluded from this that the income elasticity of demand for holidays overseas is
- A +4.0
 - B -4.0
 - C +0.25
 - D -0.25
- 6 A monopoly market will be less economically efficient than a competitive market if, under monopoly,
- A the market demand curve is inelastic.
 - B the main objective of the firm is maximum profit.
 - C there are both economies of scale and diseconomies of scale.
 - D prices are higher and output is lower.
- 7 An economy is always productively efficient if it
- A continually increases its average standard of living.
 - B maximises investment in capital goods.
 - C is operating with full employment of labour.
 - D can produce more of one good only by producing less of another.

- 8 In the diagram below, the government introduces a subsidy on a good. This shifts the supply curve for the good from S_1 to S_2 .

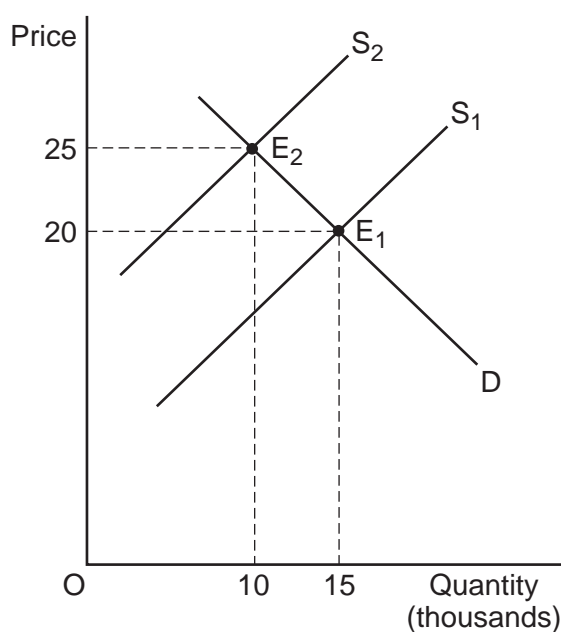


The subsidy paid per unit of the good sold is

- A HG
 B FH
 C FG
 D FE
- 9 The equilibrium price in a market
- A is the market-clearing price.
 B changes when demand equals supply.
 C always increases when demand rises.
 D is the balance of excess demand and excess supply.

Turn over ►

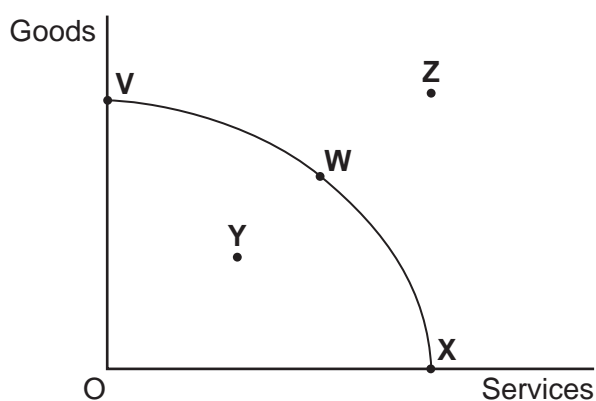
- 10 Which one of the following would be classified by an economist under the factor of production known as land?
- A A tractor
- B Chemical fertiliser
- C Fish in the ocean
- D A farmer
- 11 Government failure may result directly from
- A the high cost of administering government policy.
- B underconsumption of merit goods by the public.
- C a failure of market prices to reflect social costs.
- D goods being provided through the market mechanism.
- 12 The diagram below shows the market demand curve (D) and two market supply curves (S_1 and S_2) for a good. The initial market equilibrium is at E_1 .



An increase in the cost of raw materials used in the production of the good shifts the supply curve from S_1 to S_2 . What is the price elasticity of demand for the good between E_1 and E_2 ?

- A -0.33
- B -1.33
- C -2.00
- D -3.33

- 13 Which one of the following is an example of composite demand?
- A The demand for labour increases as the demand for the good which that labour produces increases.
 - B The demand for petrol increases because car travel increases in popularity.
 - C The demand for strawberries increases following a series of price reductions.
 - D The demand for bricks increases for use in both house building and factory building.
- 14 The diagram below shows a country's production possibility frontier.

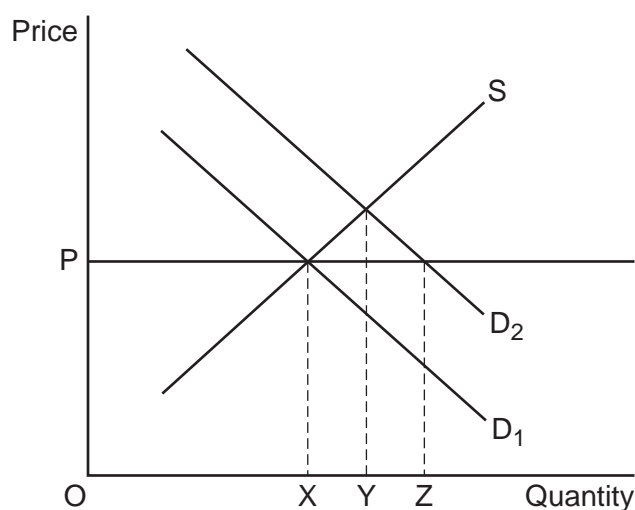


Which one of the following combinations of goods and services, **A**, **B**, **C** or **D**, could be produced with the resources available?

- A Only W and Y
 - B Only V, W and X
 - C Only V, W, X and Y
 - D V, W, X, Y and Z
- 15 Positive externalities exist when
- A production creates private benefits.
 - B private benefits are less than social benefits.
 - C private benefits are greater than private costs.
 - D social costs exceed private costs.

Turn over ►

- 16 Market failure arises whenever firms
- A make a loss.
 - B replace machines with workers.
 - C create externalities.
 - D reduce expenditure on research and development.
- 17 The diagram below shows the demand (D) and supply (S) curves for a good which generates positive externalities in consumption.



An increase in incomes causes the demand curve to shift from D_1 to D_2 but, in an effort to prevent the price from rising, the government fixes the maximum price of the good at P . If the price control is effective, which one of the following is most likely to occur?

- A The quantity sold remains at OX and there is an unsatisfied demand XY .
 - B The quantity sold remains at OX and there is an unsatisfied demand XZ .
 - C The quantity sold increases to OY and there is an unsatisfied demand YZ .
 - D The quantity sold increases to OZ and there is no unsatisfied demand.
- 18 All other things being equal, supply curves slope upwards from left to right because
- A higher prices lead to higher costs.
 - B lower prices lead to higher output.
 - C lower prices lead to higher demand.
 - D higher prices lead to higher profits.

- 19 The table below shows the annual demand and supply schedules for an agricultural good.

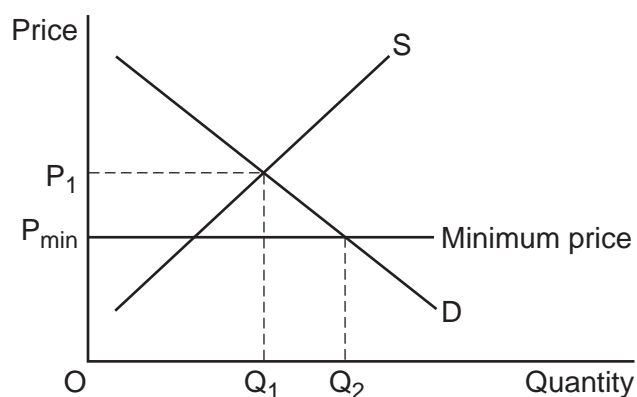
| Price (£) | Quantity demanded (000s of units) | Quantity supplied (000s of units) |
|-----------|-----------------------------------|-----------------------------------|
| 10 | 4 | 12 |
| 9 | 6 | 10 |
| 8 | 8 | 8 |
| 7 | 10 | 6 |
| 6 | 12 | 4 |

The government fixes the minimum price at £9 to be maintained by intervention. How much will such an action cost the government each year?

- A £90 000
 - B £72 000
 - C £54 000
 - D £36 000
- 20 One reason why UK governments provide education is because
- A the private benefit from education is less than the social benefit.
 - B education cannot be provided by the free market.
 - C all education is both a merit good and a public good.
 - D this ensures that the provision of education is maximised.

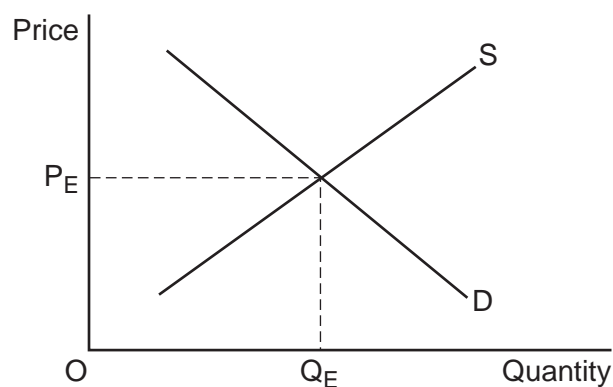
Turn over ►

- 21 The diagram below shows the supply (S) and demand (D) curves for sugar.



Price is initially at P_1 . If producers now set a minimum price of OP_{\min} , what effect will this have?

- A Equilibrium price and quantity will remain at OP_1 and OQ_1 respectively.
 - B It will encourage suppliers to increase production from OQ_1 to OQ_2 .
 - C The amount sold will increase from OQ_1 to OQ_2 .
 - D The market price will fall from OP_1 to OP_{\min} .
- 22 The diagram below illustrates the free market supply (S) and demand (D) curves for a merit good.



At the free market equilibrium position shown, there is a misallocation of resources because consumption of the good creates a positive externality. To improve the allocation of resources

- A the existing quantity of the good should be supplied at a higher price.
- B more of the good should be supplied.
- C the demand curve for the good should shift to the left.
- D the elasticity of demand for the good should be increased.

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- 23** An increase in the price of petrol will often result in consumers economising in their use of fuel by reducing the number of journeys they make in their cars. This
- A** is because petrol and car journeys are in joint supply.
 - B** shows that there is a positive cross elasticity of demand between the price of petrol and the demand for car journeys.
 - C** illustrates the operation of the rationing function of the price mechanism.
 - D** is because the price elasticity of demand for petrol is positive.
- 24** A firm will always reduce its unit cost of production as it expands its output if it
- A** benefits from specialisation.
 - B** reduces its price.
 - C** moves down the economy's production possibility frontier.
 - D** expands its use of capital and labour.
- 25** Market failure results in a misallocation of resources. In some cases, this can be corrected by the government
- A** restricting the manufacture of goods that generate positive externalities.
 - B** providing public goods.
 - C** subsidising all loss-making firms.
 - D** placing a tax on merit 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**.

EITHER

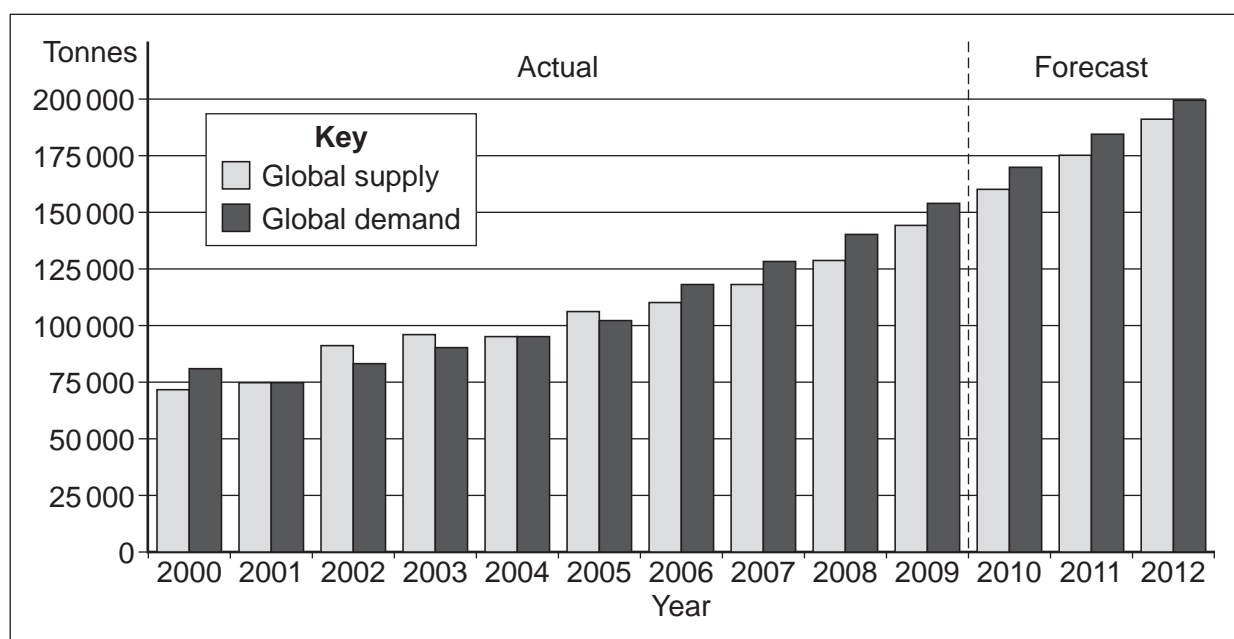
Total for this Context: 50 marks

Context 1

RARE-EARTH METALS

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

Extract A: Global supply of, and global demand for, rare-earth metals, tonnes, 2000 to 2012



Source: official statistics, 2010

Extract B: The use and production of rare-earth metals

Without rare-earth metals such as cerium and promethium, important modern technologies could not exist. Indeed, rare-earth metals function as a vital factor of production in all industries that make use of rechargeable batteries, solar cells and strong magnets. The production of *Toyota's Prius* car makes use of several rare-earth metals. Without rare-earth metals, it would be impossible for electrically-powered cars to eventually replace petrol-driven cars. The growth of the renewable energy market would also be held back. 1 5

Currently, China produces about 97% of the global supply of rare-earth metals. Most of China's exports of rare-earth metals are bought by the United States and Japan. In 2010, the Chinese government ordered China's mining companies to cut exports of rare-earth metals by 35%. The United States and Japanese governments immediately accused China of exercising monopoly power at their expense. China's monopoly power is strengthened by the fact that demand for rare-earth metals is relatively price inelastic. Forcing up the prices of rare-earth metals in other countries currently gives China an artificial competitive advantage in world markets for high-technology manufactured goods. 10 15

Source: news reports, 2010

Extract C: Rare-earth metals: a case of market failure?

| | |
|--|--------|
| Rare-earth metals have been called 'clean energy's dirty little secret'. The ores from which the metals are extracted are often radioactive. The resulting environmental costs are well illustrated by the <i>Mountain Pass</i> mine in California which, for many years, provided most of the world's rare-earth metals. In the 1980s, <i>Molycorp</i> , the company owning the mine, began piping radioactive waste water to evaporation ponds 14 miles away. However, leaks occurred and 600 000 gallons of hazardous waste flowed out into the surrounding desert. | 1 5 |
| According to some commentators, the mining industry is well known for the damage it inflicts on the environment. Very often, mining companies avoid paying for the cost of the pollution they discharge into rivers, particularly when operating in developing countries such as China. By contrast, governments in richer countries strictly regulate mining activities and make mining companies pay for much of the pollution they generate. | 10 |
| In 2002, the cost of meeting new environmental regulations forced <i>Molycorp</i> to close the <i>Mountain Pass</i> mine. However, after spending \$2.4 m a year on meeting these regulations, <i>Molycorp</i> hopes to have the mine working again by late 2011. <i>Molycorp</i> believes that the high prices which rare-earth metals now command will allow the mine to make a substantial profit. | 15 |
| Monopoly power often leads to significant market failure. However, if high prices caused by the use of monopoly power lead to the opening of new mines outside China, markets for rare-earth metals may end up working rather well. Despite the cost of meeting tough environmental regulations, the way in which mining companies around the world are reacting to higher prices provides a good example of the incentive function of prices improving resource allocation. | 20 |

Source: news reports, 2010

- 0 1** Define the term 'factor of production' (**Extract B**, lines 2–3). (5 marks)
- 0 2** Using **Extract A**, identify **two** significant points of comparison between the global supply of, and the global demand for, rare-earth metals over the period shown. (8 marks)
- 0 3** With the help of an appropriate diagram and the information in **Extract B**, explain how China can increase the prices of rare-earth metals by using monopoly power. (12 marks)
- 0 4** 'According to some commentators, the mining industry is well known for the damage it inflicts on the environment' (**Extract C**, lines 8–9).

Using the data and your economic knowledge, evaluate the view that mining activities should be left to market forces with minimum intervention by governments. (25 marks)

Turn over ►

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

Total for this Context: 50 marks

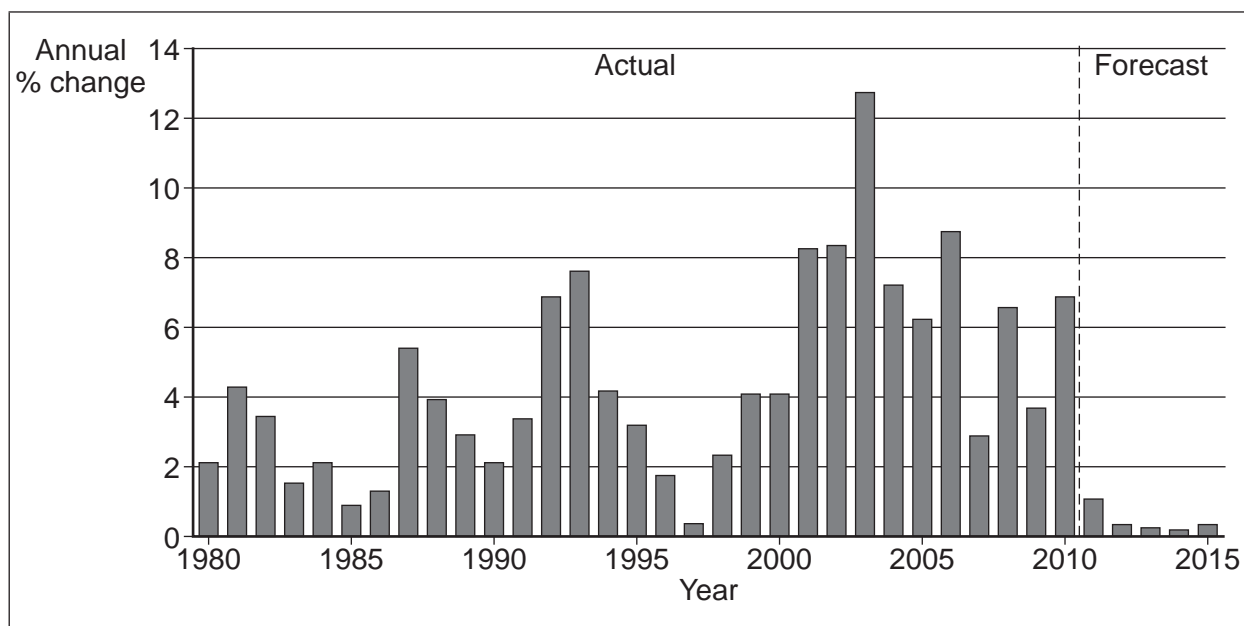
OR

Context 2

RATIONING THE SUPPLY OF HEALTH CARE SERVICES

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

Extract D: UK government spending on health care as a % of national output, annual % change, 1980 to 2015



Source: official statistics, 2011

Extract E: Matching supply and demand for health care services

Scarce resources can be allocated or rationed between competing uses in a number of ways. In a free market, the price mechanism rations the use of scarce resources. However, governments can also allocate resources, although this may lead to queues and lengthy waiting lists. 1

In the UK, most health care services are provided by the National Health Service (NHS). Many NHS services are free at the point of use for consumers and financed out of taxation. However, an ageing population, changing lifestyles and people's changing expectations of their right to health care are all factors which have led to excess demand for many NHS services. 5

Demand for most NHS services has always run ahead of supply. The government could try to match demand with supply either by reducing demand or by increasing supply. Demand could be reduced by charging patients for the health care they receive. Alternatively, the government could increase the supply of health care services by spending more on them. However, improvements in medical technology and the development of new, but usually expensive, drugs are dramatically increasing the cost of supplying NHS services to meet existing demand, let alone future demand. Increasing the supply of services may simply be unaffordable for the taxpayer. 10

15

Perhaps the best route forward is to manage expectations so that people expect less from the NHS. For example, should people expect free treatment for a leg injury received while out jogging? Should people expect the NHS to provide a free hip replacement for a ninety year old who has already received two replacements in the past ten years? These are the kind of questions that might need answering in the near future. 20

Source: news reports, 2011

Extract F: Health care reform in the UK

Various government health care agencies in the UK are responsible for rationing scarce NHS resources: for example, by telling doctors whether or not they can prescribe very expensive drugs for the treatment of cancer patients. 1

This system for rationing scarce NHS resources has been criticised in two main ways. First, some argue that the system is unfair because it has led to a situation in which drugs and treatments are available in some parts of the country but not in others. Second, some argue that the system for making rationing decisions in the NHS is 'top-down', with managers at the top making the rationing decisions rather than the local doctors who care for the patients. 5

These criticisms lie behind the health care reforms announced by the Department of Health in 2011. It was proposed that in a new 'bottom-up' system, local doctors would take over the task of rationing scarce resources: for example, by ordering drugs and booking operations for their patients. One aim is to increase competition within the NHS, although critics believe that the reforms will lead to the eventual break-up of the NHS as a 'free-at-the-point-of-use' comprehensive service. 10

Some argue that the break-up of the NHS is already taking place. The NHS no longer provides free dental care for most of the UK population, which has led to a situation in which many people, especially the poor, go without regular dental health checks. Should the government restore free, or heavily subsidised, NHS dental care? Or should people have to pay full market prices for any dental care they receive? 20

Source: news reports, 2011

0 5 Define the term 'scarce resources' (**Extract E**, line 1). (5 marks)

0 6 Using **Extract D**, identify **two** significant features of changes in UK government spending on health care over the period shown. (8 marks)

0 7 With the help of an appropriate diagram and the information in **Extract E**, explain how excess demand for NHS services has increased. (12 marks)

0 8 'Scarce resources can be allocated or rationed between competing uses in a number of ways' (**Extract E**, lines 1–2).

Using the data and your economic knowledge, evaluate the case **for** and the case **against** the NHS charging for its services. (25 marks)

END OF QUESTIONS

There are no questions printed on this page