



General Certificate of Education  
Advanced Subsidiary Examination  
January 2012

## Economics

## ECON1

### Unit 1 Markets and Market Failure

Thursday 12 January 2012 9.00 am to 10.15 am

**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**.

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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**.

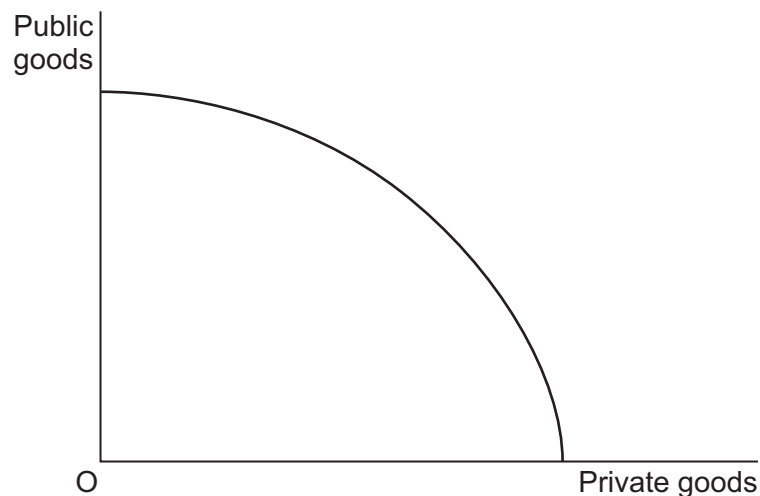
For each question there are four alternative responses, **A**, **B**, **C** and **D**. When you have selected the response which you think is the best answer to a question, mark this response on your objective test answer sheet. If you wish to change your answer to a question, follow the instructions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

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1 Which one of the following is classified as an economic resource?

- A Consumption
- B Productivity
- C Production
- D Enterprise

2 The diagram below shows a production possibility frontier for an economy.



When the economy is operating on its production possibility frontier, an increase in the production of public goods will

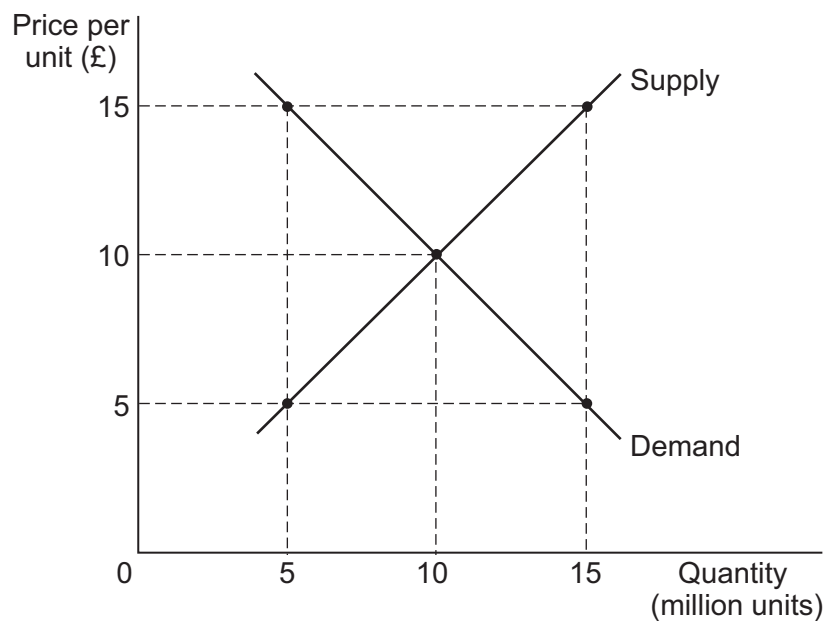
- A have no effect on the price of private goods because public goods are free.
- B mean a reduction in the production of private goods.
- C increase total output because public goods are non-rival.
- D increase the opportunity cost of private goods.

- 3 'OPEC is expected to cut output of crude oil by more than 1 million barrels per day when it meets in Vienna this week. The cut is intended to maintain the high world price for oil.'

Source: news reports, 2008

All other things being equal, if output of crude oil was cut in a such a way, which one of the following would happen in the world market for crude oil? There would be a

- A movement along the supply curve.
  - B shift to the right of the supply curve.
  - C movement along the demand curve.
  - D shift to the left of the demand curve.
- 4 The diagram below shows the demand for, and supply of, butter in a country.



The government of the country decides that domestic farmers will receive a minimum price for butter produced of £15 per unit and arranges to sell the surplus butter to foreign buyers at £5 per unit. The cost of this scheme to the government will be

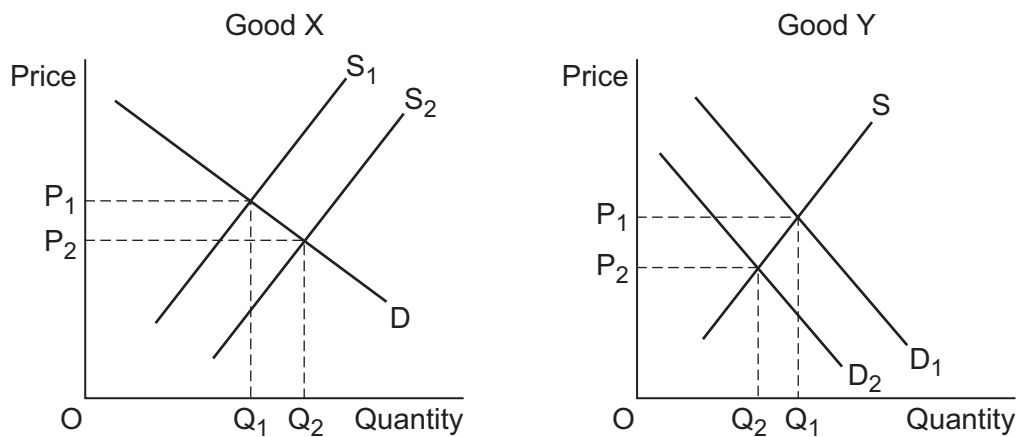
- A £75 million
- B £100 million
- C £150 million
- D £225 million

Turn over ►

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- 5 Price elasticity of supply measures the responsiveness of the quantity supplied to a change in
- A demand.
  - B price.
  - C costs of production.
  - D the size of firms.
- 6 Complete market failure always 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.
- 7 Specialisation requires the existence of
- A economies of scale.
  - B economic efficiency.
  - C a system of exchange.
  - D rising productivity.
- 8 In an economy, some industries are dominated by a few large firms. Which one of the following is most likely to explain this situation?
- In the economy
- A small producers are likely to suffer from diseconomies of scale.
  - B as industries increase their output, firms are likely to be able to charge a higher price for their products.
  - C as firms increase their size, the employment of specialist managers may result in a fall in the average cost of running a business.
  - D small firms find it hard to compete because, as firms increase their output, the rise in employment is likely to reduce labour productivity.

- 9 Which one of the following situations would lead to an increase in equilibrium price?
- A Demand is perfectly inelastic and labour costs rise
  - B Demand is perfectly elastic and labour costs rise
  - C Supply is perfectly elastic and the price of a substitute good falls
  - D Demand is perfectly inelastic and labour costs fall

- 10 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.
- 11 Which one of the following measures of elasticity indicates that two goods are substitutes?
- A A negative income elasticity of demand
  - B A positive price elasticity of demand
  - C A positive cross elasticity of demand
  - D A negative price elasticity of demand

Turn over ►

- 12 The income elasticity of demand for a good is  $-3$ . Which one of the following statements is correct?
- A A 20% increase in income leads to a 60% fall in quantity demanded.
- B A 10% increase in price leads to a 30% fall in quantity demanded.
- C The good is a normal good.
- D Demand for the good is income inelastic.
- 13 'Electricity suppliers are required to buy a growing amount of electricity from renewable energy generators. Green energy generators are paid more for their electricity because there is a scarcity of supply of electricity generated from renewable resources.'

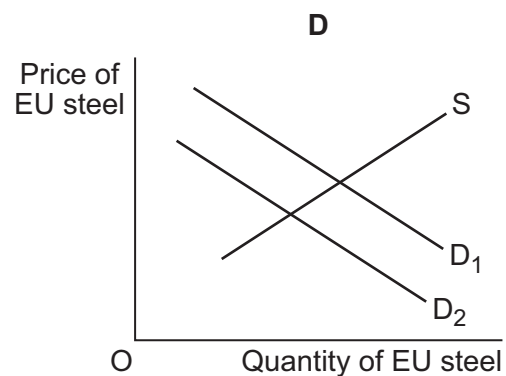
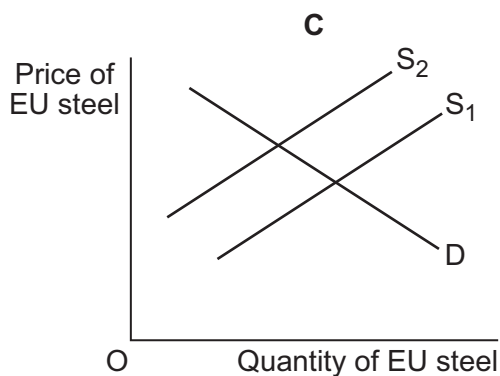
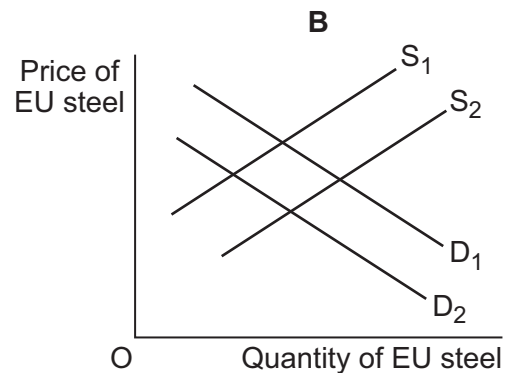
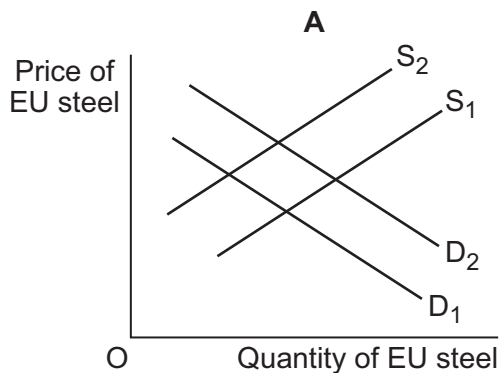
It can be deduced from the data above that

- A the government pays a subsidy to generators of renewable energy.
- B the social cost of electricity generated from renewable resources is greater than the private cost.
- C the government is subsidising the negative externalities arising from the generation of 'green energy'.
- D electricity suppliers are paying higher average prices for their electricity because some of the electricity is generated from 'green sources'.
- 14 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

- 15** Government intervention to correct market failure may make the situation worse because
- A** the information needed to make sound economic decisions is widely dispersed amongst individuals and firms.
  - B** the government is unable to provide private goods since they are both rival and excludable.
  - C** positive externalities resulting from the consumption of merit goods means that they will be underprovided by the state.
  - D** competition amongst firms in the private sector will inevitably result in an optimum allocation of resources.
- 16** ‘European Union (EU) steel production declined last year following a big reduction in demand for steel from EU manufacturers. Production of steel-containing goods by EU manufacturers has fallen because of tough global competition.’

Which one of the following diagrams, **A**, **B**, **C** or **D**, best illustrates the reasons given for the decline in the production of steel in the EU?



Turn over ►

17 A positive statement in economics is always

- A capable of being tested.
- B based upon an opinion.
- C based upon numerical data.
- D correct.

18 The table below shows the price and quantity demanded of two goods, X and Y.

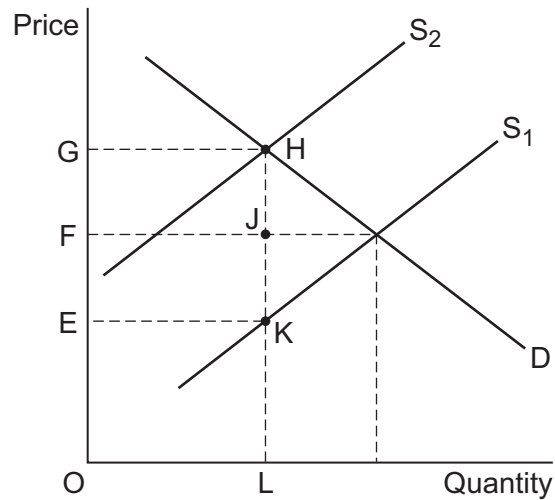
Price of X (£)	Quantity demanded of X	Quantity demanded of Y
10	20	30
9	24	42

When the price of X falls from £10 to £9, the cross elasticity of demand for Y with respect to the price of X is

- A +4
  - B +2
  - C -2
  - D -4
- 19 Government provision of a merit good can be justified because
- A without government intervention there would be a missing market.
  - B merit goods are non-rival and non-excludable.
  - C without government intervention partial market failure would result.
  - D the provision of merit goods has an opportunity cost.
- 20 At all points on a country's production possibility frontier
- A all firms are benefiting from economies of scale.
  - B productive efficiency is achieved.
  - C each point is equally socially desirable because output is at its maximum.
  - D there is an equal distribution of income in the economy.



- 21 In the diagram below, the government imposes an indirect tax on a product. This shifts the product's supply curve from  $S_1$  to  $S_2$ .

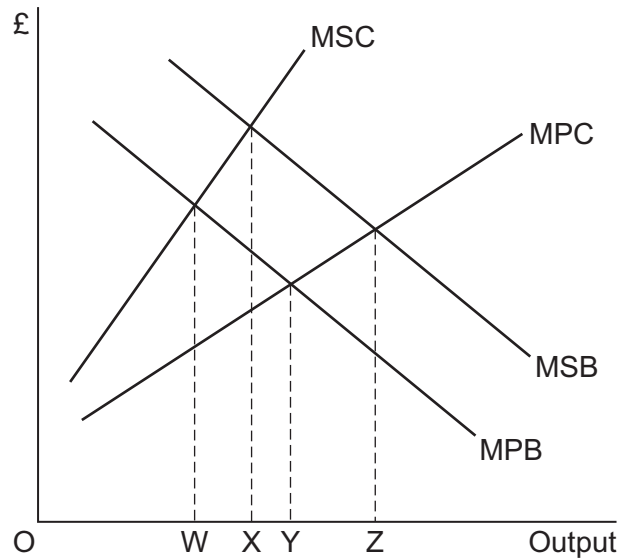


The government's tax revenue is shown by the area

- A EFJK  
 B OGHL  
 C EGHK  
 D FGHJ
- 22 A good is excludable if
- A it is possible to prevent someone from enjoying its benefits.  
 B it is supplied by the government rather than through the free market.  
 C one person's use has no effect on the quantity available for someone else.  
 D it is supplied at a zero price.
- 23 In a typical demand schedule, quantity demanded
- A varies directly with price.  
 B varies proportionately with price.  
 C is determined by the elasticity of demand.  
 D varies inversely with price.

Turn over ►

- 24 The diagram below shows the marginal private cost and marginal social cost (MPC and MSC) and the marginal private benefit and marginal social benefit (MPB and MSB) of producing a good.



The optimal output of the good for society would be

- A OW.  
 B OX.  
 C OY.  
 D OZ.
- 25 Which combination of example and policy, **A**, **B**, **C** or **D**, is most likely to be consistent with the source of market failure identified?

	Source of market failure	Example of market failure	Policy to correct market failure
<b>A</b>	Missing market	Health care	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

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

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

**Now turn to page 12 for Section B**

**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

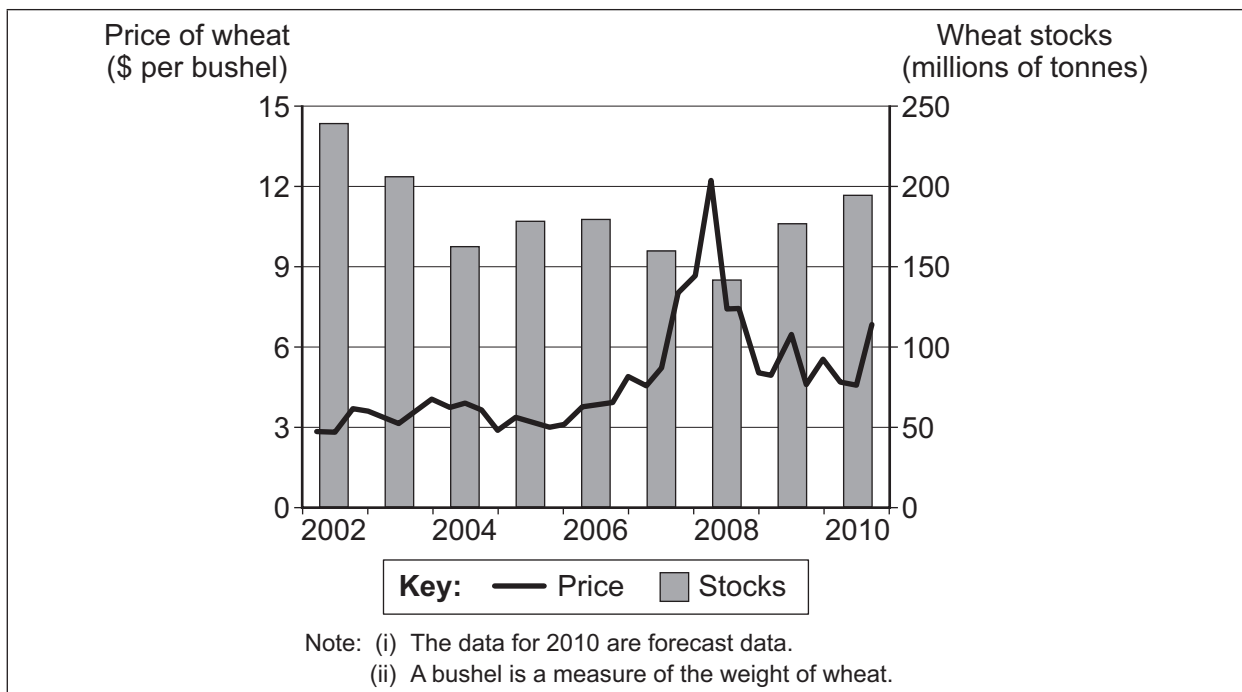
**EITHER**

**Context 1**

### THE PRICE OF WHEAT

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

#### Extract A: World price of wheat (quarterly) and world stocks of wheat (at 1 January each year), 2002 to 2010



Source: news reports, 2010

#### Extract B: World wheat markets in 2010

In Europe and North America, wheat harvests are being marked by uncertainty. This is partly because Russia, a major wheat exporter, banned exports of wheat in 2010. Very dry weather and fires destroyed a third of the Russian wheat crop. These factors contributed to significant increases in world wheat prices between June and September 2010.

1

5

Demand conditions also contribute to the long-term trend for wheat prices to rise. Increasing demand from emerging-market countries, such as China and India, is affecting world wheat markets. This makes disruptions, such as Russia's export ban, more noticeable. Wheat is now a product in composite demand. Rising living standards in poor countries increase the demand for meat. This in turn increases the demand for wheat used for feeding animals. The growing use of biofuels is having a similar effect. A biofuel, derived from a plant such as wheat, is used as a substitute for oil. Fears have also arisen that the world is facing a food crisis similar to those in 2007 and 2008, and these fears have led to a growth in the speculative demand for wheat.

10

Source: news reports, 2011

**Extract C: Should governments intervene in wheat markets?**

A closer look at the global wheat market provides a number of reasons why wheat prices might not continue to rise. Farmers throughout the world have responded to market conditions and have planted more wheat. The crop takes several months to grow but, in 2011, supply should increase. Livestock farmers are using less wheat to feed their animals, substituting cheaper grains in place of wheat.	1 5
Nevertheless, by creating confusing signals about which crops to plant for the next year's harvest, continuing price volatility may pose a problem for farmers. Droughts and floods resulting from climate change will also add to uncertainty. Pakistan, the world's eighth largest wheat producer, suffered devastating floods in 2010, although the country's wheat had already been harvested. However, the floods are almost certain to have an adverse effect on harvests in 2011 and 2012.	10
While governments of wheat-producing countries can ban exports to conserve shrinking supplies for their own citizens, what can a government of a wheat-importing country do? One solution is to leave everything to the market. Alternatively, a government can intervene in the free market. For example, a government could subsidise the price of wheat or take action to make sure that all locally-farmed wheat is used for food and not for biofuel. Another possibility is to use the law to impose a maximum price on wheat.	15

Source: news reports, 2010

- 0 1** Define the term 'composite demand' (**Extract B**, line 9). (5 marks)
- 0 2** Using **Extract A**, identify **two** significant points of comparison between changes in the world price of wheat and changes in world stocks of wheat over the period shown. (8 marks)
- 0 3** With the help of an appropriate diagram and the information in **Extract B**, explain why the world price of wheat changed in 2010. (12 marks)
- 0 4** Using the data and your economic knowledge, evaluate different ways in which the government of a country which imports large quantities of wheat can try to stabilise wheat prices within the country. (25 marks)

Turn over ►

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

**Total for this Context: 50 marks**

OR

Context 2

**TRAFFIC CAMERAS AND ROAD SAFETY**

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

**Extract D: Estimated annual costs and benefits of speed cameras and traffic-light cameras in ten selected police areas in the UK**

	Number of sites	Annual costs of operation (£000)	Annual fine income generated (£000)	Annual value of accident reduction (£000)
<b>Speed cameras</b>	420	8 859	6 730	30 239
<b>Traffic-light cameras</b>	241	3 541	1 632	6 663

Note: (i) Fine income has been classified as a benefit for the government rather than as a cost imposed on motorists.  
(ii) Traffic-light cameras detect motorists who pass through traffic lights when red.

Source: Police research paper

**Extract E: Are speed cameras economically worthwhile?**

Why do we have speed cameras? For cutting down speed and thus cutting accidents? Or is there no real evidence that they have such extensive external benefits?	1
The cost of installing each speed camera has been estimated to be around £18 000, added to which is the cost of keeping the camera in working order before it needs replacing.	5
Supporters of the use of speed cameras believe that any reduction in accidents resulting from their use justifies these costs. Moreover, they claim speed cameras can save the lives of drivers and other road users. Seen in this light, some economists believe that a speed camera is a merit good.	
The <i>Hampshire and Isle of Wight Safety Camera Partnership</i> (HSCP) claims that a 1 mph reduction in speed leads to a 5% reduction in accidents. The external cost generated by traffic accidents is huge, up to £1 253 140 for each serious accident. This figure includes the costs of police time, other emergency services, the health service, insurance company involvement, time lost at work and so on.	10
However, a number of motoring groups dispute this. Some argue that motorists' behaviour, and not speed itself, is the underlying cause of road accidents. They believe that speed cameras actually cause accidents by artificially changing driver behaviour to something that they would not normally do. Motoring groups also argue that speed cameras are simply revenue-raising devices for the government. According to these arguments, the provision of speed cameras is a source of government failure.	15
	20

Source: news reports, 2010

**Extract F: Who pays for speed cameras and who gets the financial benefits?**

The costs of installing and maintaining speed cameras are paid for by local government (local councils), but central government receives the revenue generated by the fines levied on speeding motorists whose cars are photographed by the cameras.	1
In July 2010, the UK Government cut the money it gives each year to local councils to pay for the costs of operating the speed cameras. This was a key part of the Government's promise to 'end the war on motorists'.	5
Immediately, Oxfordshire County Council announced that, to save money, it was turning off all 72 of its road-side cameras. Other local councils said that they were considering similar action.	
Lives may, however, be put at risk as a result of this spending cut. According to Britain's top traffic police officer, casualties have almost halved over eight years thanks to speed cameras and the public have come to accept them. He said: "We recognise that we have to save money. We recognise that road safety has to play its part in this, but these cuts are a threat to road safety."	10

Source: news reports, 2010

**0 5** Define the term 'external cost' (**Extract E**, line 11). (5 marks)

**0 6** **Extract D** shows differences in some of the costs and benefits between speed cameras and traffic-light cameras.

Identify **two** significant points of comparison between the costs and the benefits of the two types of road safety camera. (8 marks)

**0 7** '... a speed camera is a merit good.' (**Extract E**, line 9).

With the help of an appropriate diagram, explain why merit goods are often underprovided. (12 marks)

**0 8** '... the provision of speed cameras is a source of government failure' (**Extract E**, line 20).

Using the data and your economic knowledge, evaluate this view. (25 marks)

**END OF QUESTIONS**

**There are no questions printed on this page**