

General Certificate of Education Advanced Subsidiary Examination June 2015

Economics ECON1

# Unit 1 Markets and Market Failure

Monday 11 May 2015 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 12-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 **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.

G/TI/109696/Jun15/E5 **ECON1** 

# **Section A: Objective Test**

## Answer all questions in Section A.

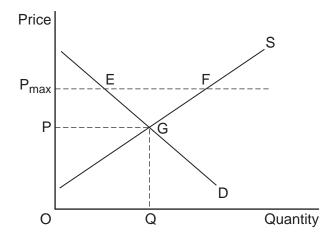
Each question carries 1 mark. No deductions will be made for wrong answers. You are advised to spend no more than 25 minutes on **Section A**.

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 A production possibility frontier illustrates
  - A the various combinations of output an economy will produce with its limited resources.
  - **B** the various combinations of output an economy is currently capable of producing with its limited resources.
  - **C** the maximum output an economy will ever be capable of producing.
  - **D** the various combinations of output which can be produced at zero opportunity cost to society.
- Which one of the following would be classified by an economist as an example of the factor of production known as capital?
  - A A delivery van
  - B Stocks and shares
  - **C** Savings in the bank
  - D Underground reserves of coal
- Which one of the following combinations, **A**, **B**, **C** or **D**, correctly identifies the operation of both the rationing and incentive functions of the price mechanism?

	Price change	Rationing function	Incentive function
Α	Rise	More supplied	Less demanded
В	Fall	More supplied	More demanded
С	Rise	Less demanded	More supplied
D	Fall	More demanded	More supplied

The diagram below shows the supply of, and demand for, milk with the initial price at OP. A government now decides to impose a maximum price of P<sub>max</sub>.



The most likely outcome would be

- A excess supply of milk at EF.
- **B** a shortage of milk at EF.
- **C** the equilibrium price OP being maintained.
- ${f D}$  a reduction in price from  ${f P}_{max}$  to OP.

Turn over for the next question

- The demand for capital goods such as plant and machinery is said to be an example of derived demand because the demand for capital goods depends on
  - A the productivity of capital goods.
  - **B** the volume of consumer goods purchased.
  - **C** the price of capital goods.
  - **D** the amount of labour employed by a firm.
- Which one of the following is the most likely reason for government intervention in a market to correct a misallocation of resources?
  - A A low price elasticity of supply of a good
  - **B** Immobility of factors of production
  - C Diseconomies of scale in production of a good
  - D An excess market demand for a good
- 7 The table below shows changes in labour productivity for a firm over time.

Year	Index of labour productivity (2010 = 100)
2008	110
2009	103
2010	100
2011	102
2012	111

The data show that over the period 2008 to 2012

- **A** the total output of all workers was highest in 2012.
- **B** productivity changed at its fastest rate between 2008 and 2009.
- **C** the numbers of workers employed was higher in 2012 than in 2010.
- **D** the amount produced per worker rose fastest between 2011 and 2012.

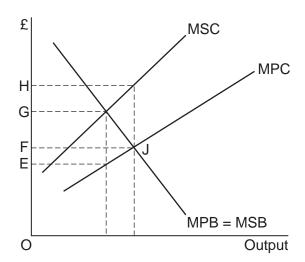
The table below shows values of income elasticities of demand for four goods, W, X, Y and Z.

Good	Estimate of income elasticity of demand
W	+0.52
Х	+0.61
Y	-0.49
Z	-0.57

From the table, it may be concluded that

- A the demand for all four goods is price inelastic.
- **B** the cross price elasticity of demand between Good X and Good W is positive.
- **C** as incomes rise, the demand for Good Y and Good Z will rise, but by a smaller percentage.
- **D** as incomes fall, only the demand for Good Y and Good Z will rise.

9 The diagram below shows the marginal private benefit (MPB) and marginal social benefit (MSB) curves and the marginal private cost (MPC) and marginal social cost (MSC) curves for Good X produced by a firm. The free market equilibrium position is at point J.



Which one of the following government policies should be used to correct the market failure that exists at point J?

- A A per unit subsidy of FH
- B A per unit tax of FG
- C A per unit subsidy of EG
- **D** A per unit tax of EG

In February 2011, British Gas announced record profits for the second year in a row from supplying gas to UK households. Just months after these record profits, British Gas announced price rises of 18%. The increase in price makes it more likely that British Gas has been exploiting its monopoly power.

From the data given, which one of the following is most likely to be correct?

- A The 18% price rise is an example of a barrier to entry into the market.
- **B** British Gas is efficient because it made record profits in the two years leading up to February 2011.
- **C** The gas supplied by British Gas has positive externalities in consumption.
- **D** There is a high degree of concentration in the UK market for gas supplied to households.
- 11 A pure public good is always
  - **A** provided by the government for all consumers.
  - **B** provided free of charge because there is no opportunity cost.
  - **C** available for consumption by others when consumed by an additional person.
  - **D** heavily subsidised by the government.
- The natural environment in the UK is under threat from urbanisation as more and more new houses are built on unspoilt countryside. It has been estimated that by 2050 a fifth of England could be urbanised.

From the passage above, it can be inferred that

- **A** the natural environment is an economic resource.
- **B** the opportunity cost of land is zero.
- **C** the price of land for house building is lower than the price of land for farming.
- **D** the private cost of urbanisation is greater than its social cost.

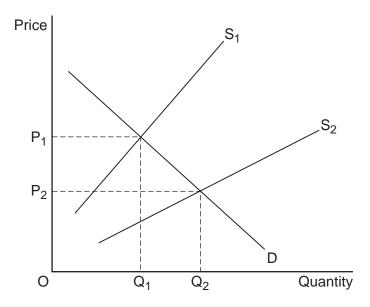
Which one of the following combinations, **A**, **B**, **C** or **D**, is true for a normal good which has a downward sloping demand curve?

	Income elasticity of demand	Price elasticity of demand
Α	Positive	Positive
В	Positive	Negative
С	Negative	Negative
D	Negative	Positive

- A government subsidy would cause the largest fall in the price of a product if its price elasticity of demand (defined as a positive number) were
  - A less than 1.
  - **B** 1.
  - C greater than 1.
  - **D** infinity.

Turn over for the next question

15 The diagram below shows the market for Good X.

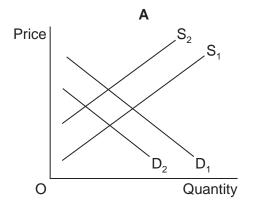


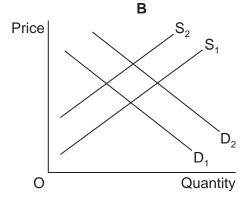
Which one of the following would cause a rightward shift of the supply curve from  $S_1$  to  $S_2$ ?

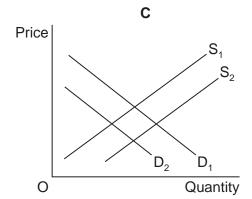
- A An increase in the demand for Good X
- **B** The creation of a monopoly by the firms in the industry supplying Good X
- C A reduction in the rate of Value Added Tax (VAT) applied to Good X
- **D** A decrease in the cost of the raw materials used in the production of a substitute good
- Which one of the following is associated with a missing market?
  - A A monopoly restricting output
  - **B** The production of a negative externality
  - **C** A firm deciding to produce a private good
  - **D** A government subsidising agricultural production

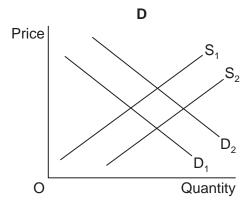
- 17 A market is defined as being in equilibrium when
  - A there is maximum output at minimum cost.
  - **B** prices are at their lowest possible level.
  - **C** there is no tendency for the market price to change.
  - **D** consumer satisfaction is maximised.
- In the diagrams below,  $S_1$  and  $D_1$  show the original supply and demand curves for Good X, while  $S_2$  and  $D_2$  show shifts of these curves.

Which diagram, **A**, **B**, **C** or **D**, illustrates the effects of an increase in the price of a good that is complementary to Good X and an increase in labour productivity in the production of Good X?

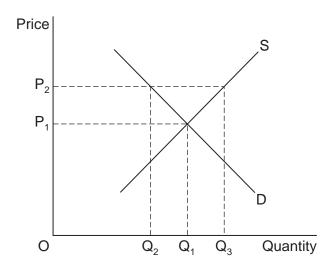








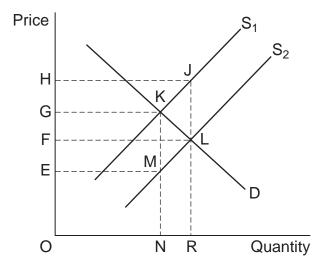
- The price elasticity of demand for a good made by a firm is −0.6. If the firm raises the price of the good, its revenues will
  - A rise.
  - **B** stay the same.
  - C fall by more than 6 per cent.
  - **D** fall by less than 6 per cent.
- 20 Specialisation and the division of labour require
  - A firms to be productively efficient.
  - **B** the economy to be on its production possibility boundary.
  - **C** a means of exchanging goods and services.
  - **D** competitive markets.
- 21 The diagram below shows the demand and supply curves for sugar in an economy.



The free market price of sugar is  $OP_1$ . The government has decided to maintain a price of  $OP_2$  and to do so through intervention buying. In achieving a price of  $OP_2$ , the amount spent on intervention buying by the government would be

- $A OP_1 \times OQ_1$
- **B**  $OP_2 \times OQ_2$
- $\mathbf{C}$  OP<sub>2</sub> x Q<sub>2</sub>Q<sub>3</sub>
- **D**  $OP_2 \times OQ_3$

- 22 Public goods result in market failure because
  - A in the absence of government intervention, a working market for the product is unlikely to become established.
  - **B** pure public goods are both rival and excludable.
  - **C** the positive externalities in consumption exceed the private benefits.
  - **D** the marginal social cost of providing public goods exceeds the marginal social benefit.
- In the diagram below, the government grants a subsidy to manufacturers of loft insulation. This shifts the market supply curve from  $S_1$  to  $S_2$ .



The total amount spent by the government on subsidies is represented by the area

- A OHJR.
- B FHJL.
- C OFLR.
- **D** EGKM.

- 24 A firm is productively inefficient if
  - A it can lower its average cost of production by reducing its output.
  - **B** an increase or a decrease in output will lead to a rise in its average cost of production.
  - **C** it can increase labour productivity by increasing the amount of capital it employs.
  - **D** the price it has to pay for raw materials and components is increasing.
- 25 All other things being equal, in a monopoly
  - A market power always leads to an efficient allocation of resources.
  - **B** product differentiation leads to low barriers to entry.
  - **C** economies of scale lead to a downward sloping market demand curve.
  - **D** high prices can lead to market failure.

# QUESTION 25 IS THE LAST QUESTION IN SECTION A

On your answer sheet ignore rows 26 to 50

Now turn to page 14 for Section B

Turn over for Section B

# **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** 

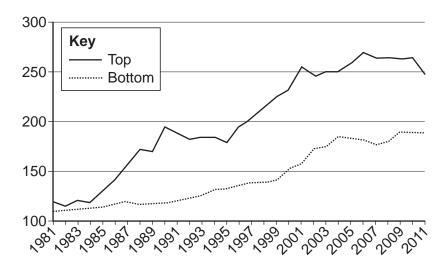
#### Either

#### Context 1

MARKETS: DO THEY BENEFIT ALL?

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

Extract A: Index of real household disposable income of two income groups\*, 1981 to 2011, 1977 = 100



Source: Office for National Statistics, July 2013. Contains public sector information licensed under the Open Government Licence v 2.0.

#### Extract B: Markets at work

Adam Smith, the eighteenth century economist, wrote of the 'invisible hand of the market'. He believed that, left to its own devices, a market would ensure that resources are allocated to their best uses for the benefit of all. Changes in prices would coordinate the decisions between consumers and producers. Indeed, it is largely as a result of the market mechanism that 63 million people in the UK are fed and clothed every day. How could a government hope to plan for such an undertaking? For instance, consumers can buy fresh food or processed food; they may eat in, eat out or on the go; they can dress in designer wear, sportswear or work wear. The list is endless.

However, buying decisions can be influenced by powerful producers. Indeed, the power of brand names such as iPad and Coca-Cola can be a significant barrier to entry. It can reduce competition in markets and lead to some firms possessing monopoly power. Consequently, consumers may face reduced choice and may have to pay higher prices to obtain what they perceive to be the best product. Moreover, in reality, advertising

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<sup>\* &#</sup>x27;Top' refers to the highest earning / 20% of households; 'Bottom' refers to the lowest earning / 20% of households

also plays a key role in the allocation of resources. Its influence, in some markets, 15 has been criticised, and there have been calls for greater regulation. Advertising can encourage increased consumption of goods and other activities which give rise to negative externalities, such as gambling. In some cases, this has led to financial ruin, family breakdown and health problems; yet the total number of gambling advertisement slots on UK television increased from 152 000 in 2006 to 1.39 million in 2012. Statistics show that those in the lowest income group spend, on average, more per week on gambling than they 20 do on taking part in sports activities.

Source: News reports 2014

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# Extract C: Do markets work ethically?

consumer's demand is income. Whilst income inequality has reduced slightly over the past few years, in 2011/12 the highest earning fifth of UK households had an average income of £78 300, compared with £5400 for the lowest earning fifth – a ratio of 14.5 to 1. Those with higher incomes have more spending power, which inevitably leads to higher prices in 5 certain markets, excluding those who earn less. In 2011, for example, 9% of the population felt that they were unable to afford their mortgage or rent payments, whilst 30% felt that they were unable to afford a week's annual holiday. One problem with markets is that there is no consideration of ethical issues. Resources are allocated on the basis of demand backed by willingness and ability to pay, and not 10 necessarily with the general well-being of society in mind. For those people who earn very low incomes, and for those who are unemployed, life can be a struggle. As the political economist, Will Hutton, wrote recently: 'At the bottom, a world of food banks, payday lending and quiet desperation. And at the top, an extravagantly-paid elite.' So do markets work well, as Adam Smith suggested, or do they lead to market failures such as those 15 arising from income inequalities, monopolies and negative externalities?

Can consumers always buy what they really need? One of the main determinants of a

Source: News reports 2014

1 Define the term 'income inequality' (Extract C, line 2). [5 marks]

- 2 Using Extract A, identify two significant points of comparison between the changes in 0 real household disposable income for the two income groups over the period shown. [8 marks]
- 0 3 Extract B (lines 3 and 4) states that: 'Changes in prices would coordinate the decisions between consumers and producers.'

Explain how changes in prices allocate scarce resources in a market economy.

[12 marks]

Extract C (line 9) states that: 'One problem with markets is that there is no consideration 0 4 of ethical issues."

> Using the data and your knowledge of economics, evaluate the view that governments should intervene to correct market failures such as those arising from income inequality, monopolies and negative externalities.

> > [25 marks]

Turn over ▶

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

Total for this Context: 50 marks

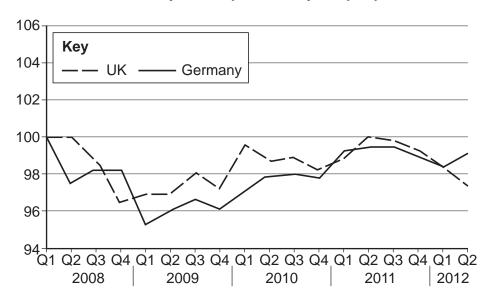
or

#### Context 2

## GOVERNMENT SUBSIDIES: TO GIVE OR NOT TO GIVE?

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

Extract D: Index of UK and Germany labour productivity, output per hour, Q1 2008 = 100



Source: Office for National Statistics, October 2012. Contains public sector information licensed under the Open Government Licence v 2.0.

## Extract E: A benchmark for UK productivity?

In 2013, the UK Government gave a subsidy of £9.3m to the Japanese car firm, Nissan, as an incentive for it to produce a new model of car at its factory in Sunderland. As a result, the Sunderland plant is currently the flagship of UK manufacturing. It employs over 7000 people directly, not to mention the additional 25 000 employed in related markets. The firm operates two assembly lines; it has benefited extensively from specialisation and technical economies of scale. Its workforce is highly trained and labour productivity has constantly improved. The plant recently became the first in the UK to make over one million cars in two years.

Back in the 1980s, Nissan was given financial incentives to open a plant in Sunderland to help reduce the unemployment caused by the decline in industries such as shipbuilding. The situation had been made worse by the market failures of geographical and occupational immobility. But should the firm still receive support? In November, Nissan reported that it expected to make a net profit of 334 billion yen (£2.2bn) for the year ended March 2014.

The Government has also announced that it is prepared to support financially the development of the proposed £16bn nuclear power station in Somerset, in the south west of England, due to be built by the French firm, EDF, with help from Chinese investors. Given the increasingly rapid depletion of non-renewable fossil fuels, some would argue that it is sensible to support the production of alternative energy sources. Yet the impact on the environment in Somerset must also be considered.

Source: News reports, 2014

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# Extract F: What, how, for whom - who is more deserving?

Government support is not provided to all firms. For instance, the DVD and games rental firm, Blockbuster, and the music and film retailer, HMV, have, arguably, suffered as a result of new technology and structural change. Whilst HMV is still trading, just over 800 jobs were lost at Blockbuster when the firm closed its remaining stores. Nowadays, many consumers find downloading more convenient, and further advances in technology have led to the streaming of music and films. The online TV and film streaming firm, Netflix, reported a huge increase in demand for its services; it ended 2013 with 44 million international viewers. The power of the consumer reigns and, as a consequence, the 'old' industry is left behind.	5
But is this fair? How does a government decide which firms to support financially? There are those who argue that firms should be left to fend for themselves, that government subsidies should be used only for goods and services whose production and consumption give rise to positive externalities.	10
A defibrillator, for example, a life-saving machine for use when a person's heart stops, could be described as a merit good. According to the charity, The British Heart Foundation, there are around 60 000 out-of-hospital cardiac arrests (heart failures) in the UK every year, yet the provision of defibrillators is not routinely subsidised by the Government. More and more community organisations are holding fund-raising activities to enable them to acquire their own defibrillators, but should they have to? Is this the best way to maximise economic	15
welfare?	20

Source: News reports, January 2014

0 5 Define the term 'technical economies of scale' (Extract E, lines 5 and 6). [5 marks]

Using Extract D, identify two significant points of comparison between changes in labour productivity in the UK and Germany over the period shown.

[8 marks]

**O** 7 Extract E (lines 4 to 6) states that: 'The firm operates two assembly lines; it has benefited extensively from specialisation and technical economies of scale ... .'

Explain how specialisation may lead to increases in productivity and competitiveness.

[12 marks]

**O 8 Extract F** (line 11) states that: 'There are those who argue that firms should be left to fend for themselves ... .'

Using the data and your knowledge of economics, evaluate the view that firms in industries such as cars and energy should operate without any financial assistance from governments.

[25 marks]

# **END OF QUESTIONS**

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