Please write clearly in block capitals.

Centre number | | | | | |  Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____

# A-level
# ECONOMICS

## Paper 3 Economic principles and issues

Monday 19 June 2017 Afternoon Time allowed: 2 hours

**Materials**

For this paper you must have:
- the insert
- a calculator.

**Instructions**
- Answer **all** questions.
- Use black ink or a black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- You will need to refer to the insert provided to answer **Section B**.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this answer book. Cross through any work you do not want to be marked.

**Information**
- There are 80 marks available on this paper.
- The marks for questions are shown in brackets.
- No deductions will be made for wrong answers.

| For Examiner's Use | |
|---|---|
| | |
| Section | Mark |
| A | |
| B | |
| **TOTAL** | |

Do not write outside the box

## Section A

Answer **all** questions in this section.

Only **one** answer per question is allowed.

For each answer completely fill in the circle alongside the appropriate answer.

CORRECT METHOD ⬬ WRONG METHODS

If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

**0 1** Economic decision making and policies are influenced by value judgements because

**A** all people are motivated by the desire to maximise their incomes. ⬭

**B** economic analysis and decision making is assumed to be based on complete information. ⬭

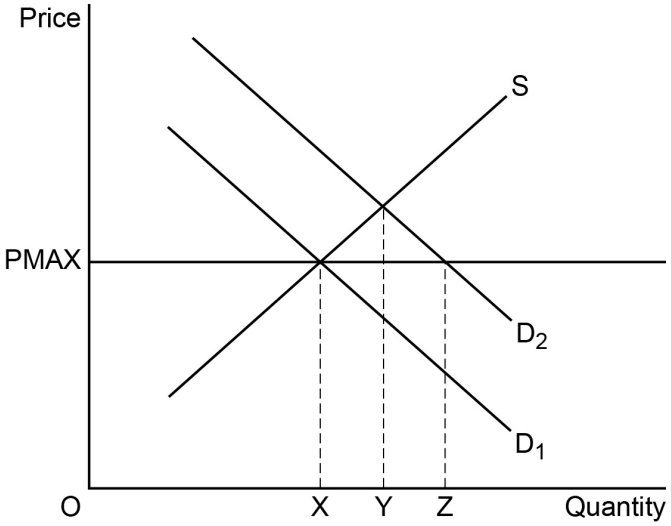
**C** they are based on the same methodology as the natural sciences. ⬭

**D** they involve moral and political considerations as well as positive analysis. ⬭

**[1 mark]**

Do not write outside the box

**0 2** The diagram below shows the original market demand and supply curves ($D_1$ and S) for loft insulation. Loft insulation reduces energy consumption.




The government wishes to meet its energy efficiency target by shifting the market demand curve for loft insulation from $D_1$ to $D_2$. Which one of the following policies is most likely to enable the government to achieve its objective?

**A** A decrease in the rate of VAT on domestic gas and electricity used for home heating ⬭

**B** A 'nudge' to households to install loft insulation by offering to clear lofts of unwanted items if insulation is installed ⬭

**C** The introduction of a maximum price for loft insulation ⬭

**D** The introduction of a subsidy paid to the firms installing loft insulation ⬭

**[1 mark]**

**0 3** The law of diminishing marginal utility states that

**A** as more of a product is consumed, the extra satisfaction will decline. ⬭

**B** as more of all factors are employed, the additional output produced will fall. ⬭

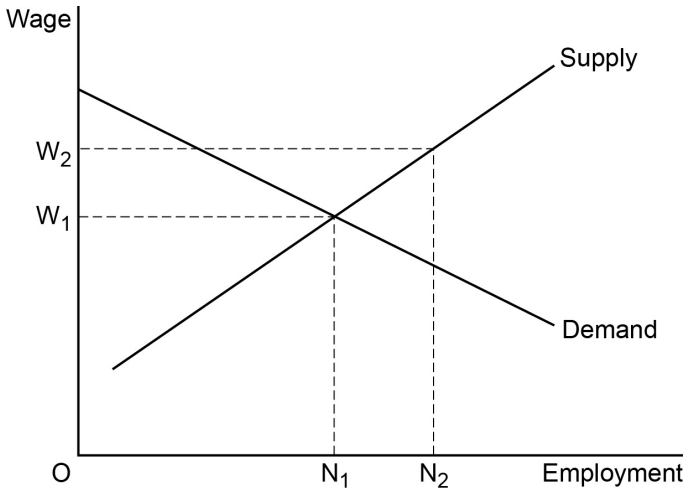
**C** as more variable factors are added to a fixed factor, the additional output produced will decline. ⬭

**D** the total satisfaction from consuming a product will be maximised when marginal utility starts to fall. ⬭

**[1 mark]**

Do not write outside the box

**0 4** The diagram below shows the market for bricklayers.




The original equilibrium wage is $W_1$ and the number of bricklayers employed is $N_1$. Which one of the following events is most likely to increase the wage paid to bricklayers to $W_2$ and increase employment to $N_2$?

**A** A cut in bank rate leading to a fall in mortgage interest rates ⬭

**B** A fall in the number of young people training as apprentice bricklayers ⬭

**C** An improvement in working conditions in the construction industry ⬭

**D** An increase in the wages paid to electricians in the construction industry ⬭

**[1 mark]**

Do not write outside the box

**0 5** A firm employs three factors of production: capital, land and labour. The table below shows how the firm's output is affected by changing the amount employed of these factor inputs.

| Units of output | Units of capital | Units of land | Labour (Number of workers) |
|---|---|---|---|
| 500 | 20 | 40 | 60 |
| 1000 | 80 | 160 | 240 |
| 2000 | 140 | 280 | 420 |
| 3000 | 210 | 420 | 630 |
| 4000 | 300 | 580 | 860 |

The firm experiences constant returns to scale when it increases its output from

**A** 500 to 1000 units. ⬭

**B** 1000 to 2000 units. ⬭

**C** 2000 to 3000 units. ⬭

**D** 3000 to 4000 units. ⬭

**[1 mark]**

**0 6** The table below shows possible differences between the meanings of the terms invention and innovation. Which combination, **A**, **B**, **C** or **D**, correctly identifies the difference between the meanings of these terms?

| | Invention | Innovation | |
|---|---|---|---|
| **A** | Applies to changes in goods only | Applies to changes in services only | ⬭ |
| **B** | Applies to changes in services only | Applies to changes in goods only | ⬭ |
| **C** | Discovering something entirely new | Turns the results of invention into a product | ⬭ |
| **D** | Turns the results of innovation into a product | Discovering something entirely new | ⬭ |

**[1 mark]**

**Turn over for the next question**

Do not write outside the box

**0 7** The table below shows the output, average total cost and average revenue for a firm.

| Units of output | Average total cost (£) | Average revenue (£) |
|---|---|---|
| 10 | 15 | 26 |
| 11 | 14 | 24 |
| 12 | 13 | 23 |
| 13 | 12 | 21 |

At which one of the following levels of output will the firm maximise its profits?

**A** 10 units ⬭

**B** 11 units ⬭

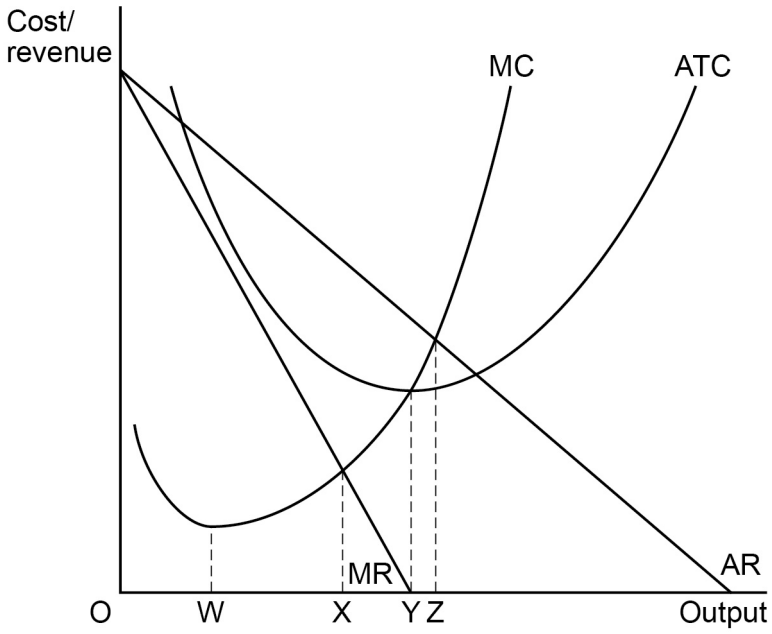
**C** 12 units ⬭

**D** 13 units ⬭

**[1 mark]**

Do not write outside the box

**0 8** The diagram below shows the cost and revenue curves for a monopoly.




At which one of the following levels of output would the firm be productively efficient?

**A** OW ⬭

**B** OX ⬭

**C** OY ⬭

**D** OZ ⬭

**[1 mark]**

**0 9** The marginal revenue product of labour is the

**A** addition to total revenue when the firm produces and sells an extra unit of output. ⬭

**B** amount produced per worker per time period. ⬭

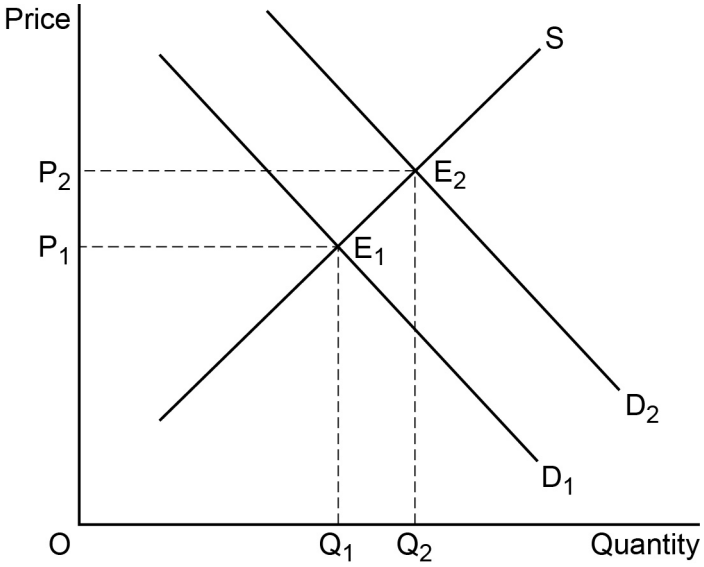
**C** change in total output that is produced when one extra worker is employed. ⬭

**D** revenue gained by selling the extra output produced by employing one more worker. ⬭

**[1 mark]**

Do not write outside the box

**1 0** The diagram below shows the demand curves ($D_1$ and $D_2$) and the supply curve (S) in the market for good X. The initial market equilibrium is at $E_1$.




The increase in market demand from $D_1$ to $D_2$ results in a new market equilibrium at $E_2$. The market mechanism that leads to the establishment of the new equilibrium is based on

**A** excess demand for good X at the initial price of $P_1$. ⬭

**B** excess demand for good X at the new price $P_2$. ⬭

**C** excess supply of good X at the initial price of $P_1$. ⬭

**D** excess supply for good X at the new price $P_2$. ⬭

**[1 mark]**

**1 1** Which one of the following values for the Gini coefficient shows the greatest inequality?

**A** -0.5 ⬭

**B** 0 ⬭

**C** 0.5 ⬭

**D** 1 ⬭

**[1 mark]**

Do not write outside the box

**1 2** The tragedy of the commons can be applied to the fishing industry. What is the nature of this market failure?

**A** Over-fishing resulting in declining fish populations ⬭

**B** The imposition of fishing quotas by the European Union ⬭

**C** The positive externalities associated with fish consumption ⬭

**D** The third-party effects on dolphins as a result of tuna fishing ⬭

**[1 mark]**

**1 3** Immobility of labour may lead to a misallocation of resources and market failure because

**A** a change in the pattern of demand results in structural unemployment. ⬭

**B** the education and training needed to reduce labour immobility is a public good. ⬭

**C** the government's target for the rate of inflation is too high. ⬭

**D** the immobility of factors of production is a negative externality in production. ⬭

**[1 mark]**

**1 4** The following table shows the real GDP of an economy from 2012 to 2016.

| **Year** | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| **Real GDP (£bn)** | 213 | 215 | 245 | 256 | 271 |

If the figures were converted to index form with 2013 as the base year, what would be the value of the index (to the nearest whole number) in 2016?

**A** 124 ⬭

**B** 125 ⬭

**C** 126 ⬭

**D** 127 ⬭

**[1 mark]**

Do not write outside the box

**1 5** The information below shows the changes in key economic indicators for a country over a period of one year.

| Money GDP | Rate of inflation | Population increase | Gini coefficient |
|---|---|---|---|
| +6% | +4% | +1% | –8% |

Which one of the following can be concluded from the data?

**A** External costs generated from economic activity have reduced the quality of life

**B** Real GDP per capita has fallen

**C** The distribution of income has become more unequal

**D** The standard of living of typical residents in the country has probably improved

**[1 mark]**

**1 6** Assuming that the value of the marginal propensity to consume is 0.6, which of the following changes in national income would result from an increase in exports of £19bn?

**A** £31.7bn

**B** £47.5bn

**C** £76bn

**D** £114bn

**[1 mark]**

Do not write outside the box

**1 7** The primary measure of unemployment in the UK is based on the

**A** number of people joining the labour force minus the number of people leaving the labour force. ⬭

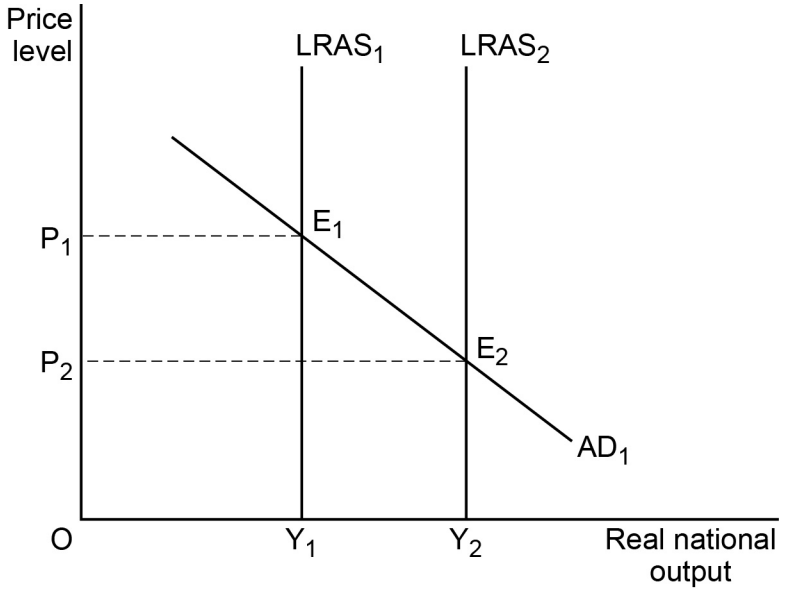
**B** number of people not working who are of working age. ⬭

**C** the number of people actively seeking work and available to start work. ⬭

**D** proportion of the population of working age without a job. ⬭

**[1 mark]**

**1 8** The diagram below depicts an aggregate demand (AD) curve and two long-run aggregate supply (LRAS) curves for an economy. The economy's initial equilibrium is at $E_1$.




All other things being equal, the movement of the economy from its initial equilibrium at $E_1$ to $E_2$ is most likely to be caused by an increase in

**A** government borrowing. ⬭

**B** labour productivity. ⬭

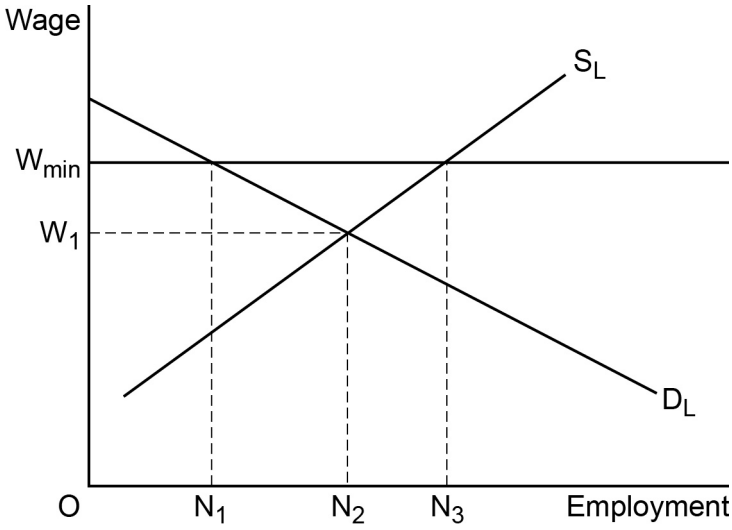
**C** the rate of deflation. ⬭

**D** money wage rates. ⬭

**[1 mark]**

Do not write outside the box

**1 9** The diagram below represents the market for unskilled agricultural labourers where the demand for agricultural labourers is $D_L$ and the supply is $S_L$. The trade union representing agricultural labourers has negotiated a minimum wage of $OW_{min}$ for its members.




The effect of implementing a minimum wage of $OW_{min}$ is that

**A** cyclical unemployment increases by ($ON_3 – ON_1$). ⬭

**B** frictional unemployment increases by ($ON_2 – ON_1$). ⬭

**C** real wage unemployment increases by ($ON_3 – ON_1$). ⬭

**D** the natural rate of unemployment increases by ($ON_2 – ON_1$). ⬭

**[1 mark]**

**2 0** A bank makes a new loan to a customer. All other things being equal, which combination of events, **A**, **B**, **C** or **D**, shows what will happen?

| | Bank's liabilities | Bank's assets | Money supply | |
|---|---|---|---|---|
| **A** | Increase | Increase | Increases | ⬭ |
| **B** | Increase | Fall | Increases | ⬭ |
| **C** | Fall | Increase | Falls | ⬭ |
| **D** | Fall | Fall | Falls | ⬭ |

**[1 mark]**

Do not write outside the box

**2 1** A government issued bond has a nominal value of £100 and the annual coupon is £6. The bond has 35 years until maturity. Its current yield is 5%. The current market price of the bond is

**A** £100 ⬭

**B** £105 ⬭

**C** £106 ⬭

**D** £120 ⬭

**[1 mark]**

**2 2** Which one of the following combinations, **A**, **B**, **C** or **D**, best distinguishes between the functions of the money market and the capital market?

| | Money market | Capital market | |
|---|---|---|---|
| **A** | The market for issuing new shares | The market where foreign currency is exchanged at some point in the future | ⬭ |
| **B** | The market where commercial banks provide short-term loans to each other | The market where businesses obtain funds to finance long-term growth | ⬭ |
| **C** | The market where foreign currencies are traded | The main market in which commercial banks lend to each other | ⬭ |
| **D** | The market where the government finances its budget deficit by issuing bonds | The market where short-term debt is converted into equity finance | ⬭ |

**[1 mark]**

**Turn over for the next question**

Do not write outside the box

**2 3** The table below shows the marginal income tax rates in an economy for 2016.

**Table: Marginal income tax rates for every $1 of income**

| Taxable Income | Income tax rates 2016 |
|---|---|
| From $0 to $10 000 | 0% |
| From $10 001 to $30 000 | 10% |
| From $30 001 to $50 000 | 30% |
| $50 001 and above | 45% |

How much income tax would be payable by someone earning $40 000 in 2016?

**A** $5 000 ⬭

**B** $5 500 ⬭

**C** $10 000 ⬭

**D** $12 000 ⬭

**[1 mark]**

**2 4** The national debt is the

**A** annual budget deficit plus the external trade deficit. ⬭

**B** amount by which the budget deficit increases each year. ⬭

**C** annual difference between government spending and tax receipts. ⬭

**D** the cumulative stock of outstanding central government borrowing. ⬭

**[1 mark]**

Do not write outside the box

**2 5** The table below shows how much of each of two products can be produced by two countries with the same amount of resources.

| | Motorbikes | | Cars |
|---|---|---|---|
| **Brazil** | 10 | or | 5 |
| **United States** | 6 | or | 2 |

Which one of the following statements is correct?

**A** Brazil has a comparative advantage in the production of both motorbikes and cars. ⬭

**B** Brazil has a comparative advantage in the production of cars. ⬭

**C** The opportunity cost of producing motorbikes is higher in the United States than Brazil. ⬭

**D** Trade will not take place because Brazil is better at producing both goods. ⬭

**[1 mark]**

**2 6** A country has a Human Development Index of 0.91. This country is most likely to have

**A** a high dependence on its primary sector. ⬭

**B** a low level of life expectancy. ⬭

**C** rapid population growth. ⬭

**D** relatively low levels of illiteracy. ⬭

**[1 mark]**

**Turn over for the next question**

Do not write outside the box

**2 7** The table below shows the Consumer Prices Index for a country over a number of years.

| Year | End of year prices index |
|---|---|
| 1 | 100 |
| 2 | 98 |
| 3 | 103 |
| 4 | 105 |
| 5 | 106 |
| 6 | 104 |
| 7 | 107 |

Which one of the following can be concluded from the table?

**A** The country suffered disinflation in Year 5 ⬭

**B** The inflation rate was highest in Year 7 ⬭

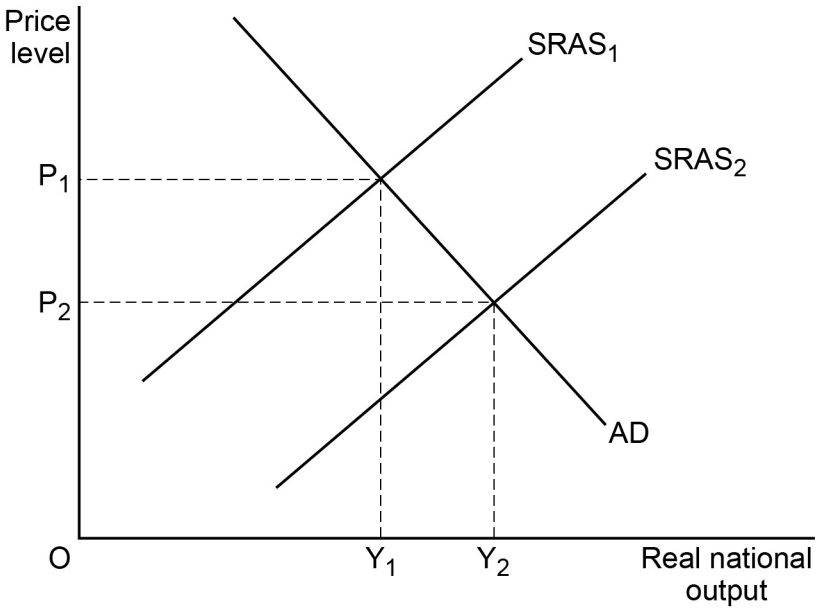
**C** The only time the country suffered deflation was in Year 2 ⬭

**D** Real incomes fell between Year 1 and Year 7 ⬭

**[1 mark]**

Do not write outside the box

**2 8** The diagram below shows the aggregate demand (AD) and two short-run aggregate supply (SRAS) curves for an economy.




All other things being equal, which one of the following is most likely to cause the short-run aggregate supply curve to shift from $SRAS_1$ to $SRAS_2$?

**A** A fall in the size of the labour force ⬭

**B** An increase in imports ⬭

**C** An increase in the value of the multiplier ⬭

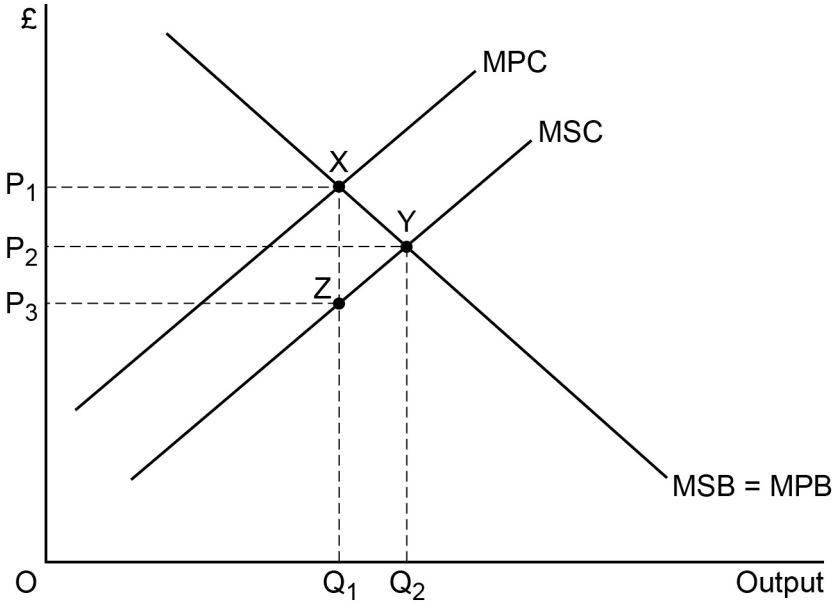
**D** Lower world commodity prices ⬭

**[1 mark]**

**Turn over for the next question**

Do not write outside the box

**2 9** 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 in a market where there are positive externalities in production.




At the free market equilibrium, market failure occurs. Which one of the following is correct?

**A** As a result of this market failure, consumer surplus is reduced by ZXY ⬭

**B** As a result of this market failure, there is a deadweight loss to society of $P_3P_1XZ$ ⬭

**C** $P_1$ minus $P_3$ is the subsidy per unit that is required to correct the market failure and achieve the social optimum ⬭

**D** The diagonal distance XY shows the amount by which marginal private cost exceeds marginal social cost at $OQ_2$ ⬭

**[1 mark]**

**3 0** The price elasticity of demand for games consoles is -1.2. It can be concluded that a 10% reduction in their price would lead to a percentage change in demand of

**A** –8.3% ⬭

**B** –12.0% ⬭

**C** +8.3% ⬭

**D** +12.0% ⬭

**[1 mark]**

30

*Do not write outside the box*

**Turn over for Section B**

**DO NOT WRITE ON THIS PAGE**
**ANSWER IN THE SPACES PROVIDED**

Do not write outside the box

## Section B

Answer **all** questions in this section

**Refer to the insert for Extracts A, B, C and D.**

**Total for this Investigation: 50 marks**

**The march of the makers – does manufacturing matter?**

**INVESTIGATION**

**Scenario**

You are an economist, employed by a firm of economic consultants working for the government. You have been asked to produce a report on the importance of manufacturing for the UK economy. As part of this investigation, you are to provide answers to three questions.

**Referring to the insert**, study Extracts **A**, **B**, **C** and **D**, and then use these and your own economic knowledge to help you answer questions 31, 32 and 33.

**3 1** To what extent, if at all, do you consider that the UK manufacturing sector has been in decline since 2003? You must use the data in **Extract B** to support your assessment.

**[10 marks]**

Do not write outside the box

Extra space

Do not write outside the box

**3 2** Explain why, in advanced economies, economic growth is usually accompanied by a fall in employment in manufacturing but an increase in employment in the service sector.

**[15 marks]**

Do not write outside the box

Extra space

Do not write outside the box

Do not write outside the box

**3 3** Taking into account **Extract D**, and the original evidence presented in **Extracts A**, **B** and **C**, would you recommend that the government should intervene to support the UK steel industry? Justify your recommendation.

**[25 marks]**

*Do not write outside the box*

Do not write outside the box

Extra space

Do not write outside the box

50

**END OF QUESTIONS**

**Copyright information**

For confidentiality purposes, from the November 2015 examination series, acknowledgements of third party copyright material will be published in a separate booklet rather than including them on the examination paper or support materials. This booklet is published after each examination series and is available for free download from www.aqa.org.uk after the live examination series.

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team, AQA, Stag Hill House, Guildford, GU2 7XJ.

Copyright © 2017 AQA and its licensors. All rights reserved.