



Rewarding Learning

**ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2016**

Economics

Assessment Unit AS 1

Markets and Prices

[AE111]

MONDAY 20 JUNE, AFTERNOON

**MARK
SCHEME**

General Marking Instructions

This mark scheme is intended to ensure that the AS examinations are marked consistently and fairly. The mark scheme provides examiners with an indication of the nature and range of candidate responses likely to be worthy of credit. It also sets out the criteria which they should apply in allocating marks to candidates' responses. The mark scheme should be read in conjunction with these general marking instructions which apply to all papers.

Quality of candidates' responses

In marking the examination papers, examiners will be looking for a quality of response reflecting the level of maturity which may reasonably be expected of 17-year-olds, which is the age at which the majority of candidates sit their AS examinations.

Flexibility in marking

The mark scheme is not intended to be totally prescriptive. For many questions, there may be a number of equally legitimate responses and different methods by which the candidates may achieve good marks. No mark scheme can cover all the answers which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner for the paper concerned.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for valid responses rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected for 17-year-old candidates. Conversely, marks should only be awarded for valid responses and not given for an attempt which is completely incorrect or inappropriate.

Types of mark schemes

Mark schemes for questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication. These questions are indicated on the cover of the examination paper. Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided. Some material may be included in the mark scheme for the benefit of teachers and pupils preparing for future examinations. Candidates are not expected to have provided this information. Such material is printed in the mark scheme in italics.

Levels of response

Questions requiring candidates to respond in extended writing are marked in terms of levels of response. In deciding which level of response to award, examiners should look for the "best fit" bearing in mind that weakness in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement. The following guidance is provided to assist examiners.

Threshold performance: Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.

Intermediate performance: Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.

High performance: Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

Marking calculations

In marking answers involving calculations, examiners should apply the “own figure rule” so that candidates are not penalised more than once for a computational error.

Quality of written communication

Quality of written communication is taken into account in assessing candidates’ responses to all questions that require them to respond in extended written form. These questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication. Where the quality of candidates’ economics is not matched by the quality of written communication, marks awarded will not exceed the maximum for Level 2 in questions which have three levels of response or the maximum for Level 3 in those which have four levels of response.

For conciseness, quality of written communication is distinguished within levels of response as follows:

Level 1: Quality of written communication is limited.

Level 2: Quality of written communication is satisfactory.

Level 3: Quality of written communication is of a high standard.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

Level 1 (Limited): The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 (Satisfactory): The candidate makes a reasonable attempt to select and use an appropriate form and style of writing, supported with appropriate use of diagrams as required. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 (High Standard): The candidate successfully selects and uses an appropriate form and style of writing, supported with the effective use of diagrams where appropriate. Relevant material is organised with a high degree of clarity and coherence. There is widespread use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a sufficiently high standard to make meaning clear.

- 1 (a) Income is a flow concept which refers to the amount of money an individual or household earns over a given period of time and includes incomes from wages, salaries, interest payments, dividend payments and rents. The income of a country is measured by GDP.

Wealth on the other hand is a stock concept which refers to the value of assets an individual has at any particular time. These assets can be in the form of property, shares, artwork and private pensions. *The ONS split wealth into 4 main categories when calculating the wealth of the nation*

- Property wealth – houses, land etc (£3.5tn UK 2013)
- Physical wealth – antiques, artwork, vehicles etc (£1.1tn UK 2013)
- Financial wealth – shares, savings etc minus any financial liabilities (£1.3tn UK 2013)
- Private pension wealth (£3.6tn UK 2013)

Level 1 ([1]–[2])

Candidate shows little knowledge or understanding of the difference between income and wealth. There may be seriously flawed definitions and little development through relevant examples, or technical language. Quality of written communication is limited.

Level 2 ([3]–[4])

Candidate shows some knowledge or understanding of the difference between income and wealth. There may be credible definitions, though they may contain minor errors, and some development through relevant examples or technical language. Quality of written communication is satisfactory.

Level 3 ([5]–[6])

Candidate shows comprehensive knowledge and understanding of the difference between income and wealth. There are accurate definitions and comprehensive development through relevant examples, or technical language. Quality of written communication is of a high standard. [6]

- (b) Fig 1 shows that income is unevenly distributed in the UK with the top decile group earning 31% of total income while the bottom decile group earn only 1% of total income. Indeed the top decile group earn more than 3 times as much income as the combined income of the bottom 3 decile groups. Or to put it another way the top 10% of earners in the UK earn approximately the same amount as the combined income of the bottom 60%.

When we look at the distribution of wealth we can see that the gap between the top and bottom is even greater. The top decile groups has 44% of the total wealth of the country which is more than 4 times that of the bottom half combined and is greater than the combined wealth of the bottom 80%.

Level 1 ([1]–[2])

Candidate provides no significant comparison of the distribution of income with that of wealth for the UK in 2013. Quality of written communication is limited.

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Level 2 ([3]–[4])

Candidate provides a basic comparison of the distribution of income with that of wealth for the UK in 2013. No attempt will be made to manipulate data to make relative comparisons. Quality of written communication is satisfactory.

Level 3 ([5]–[6])

Candidate provides a comprehensive comparison of the distribution of income with that of wealth for the UK in 2013. Candidate will point out that wealth is much more unevenly distributed than income. Data will be manipulated to show relative comparisons. Quality of written communication is of a high standard. [6]

- (c) The source identifies a number of factors which have led to a rise in inequality since 2007.

Those at the bottom have suffered a fall in real disposable income as a result of:

- Stagnant wages – many employees at the bottom have faced pay freezes
- Rising prices – inflation over the period has reduced real wages
- Cuts to benefits – the removal of, or reduction in, a number of key benefits has reduced the disposable income of those at the bottom.

While those at the top have benefited from:

- The reduction in the highest rate of income tax from 50% to 45% which has allowed them to keep more of their income
- A resurgent stock market which has allowed many at the top to cash in gains and earn additional income.

Level 1 ([1]–[2])

Candidate provides little explanation of why income inequality has increased in the UK since 2007. At this level the candidate may simply quote directly from the source without any independent explanation. Quality of written communication is limited.

Level 2 ([3]–[4])

Candidate provides some explanation of why income inequality has increased in the UK since 2007. Quality of written communication is satisfactory.

Level 3 ([5]–[6])

Candidate provides a clear and comprehensive explanation of why income inequality has increased in the UK since 2007. Quality of written communication is of a high standard. [6]

- (d) A regressive tax is one where the percentage of income paid in tax decreases as income increases. Fig 2 shows that while the top quintile pay significantly more tax as an absolute amount than the bottom quintile they pay less as a proportion of their income (35.1%) than the bottom quintile group (37.4%).

2 marks for explanation of a regressive tax

2 marks for use of appropriate data

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(e) The UK economy may benefit in a number of ways from a reduction in inequality.

- Evidence suggests that there is a strong correlation between inequality rates and social problems such as poor health, depression and crime levels. The source estimates these costs to be £39bn per year. A reduction in inequality would significantly reduce these costs
- A reduction in inequality will increase total utility in an economy since the marginal utility the poor receive from each extra pound is greater than the loss of utility the rich suffer from giving up an extra pound
- A reduction in inequality would actually benefit the whole of society and the economy, since the poor are more likely to spend their money in the UK, which will benefit the economy and create further jobs
- Evidence suggests that a reduction in inequality would lead to greater community cohesion and social mobility which should in turn increase levels of happiness or satisfaction.

Level 1 ([1]–[2])

Candidate provides little explanation of how the UK economy might benefit from a reduction in inequality. At this level the candidate may simply quote directly from the source without any independent explanation. Quality of written communication is limited.

Level 2 ([3]–[4])

Candidate provides some explanation of how the UK economy might benefit from a reduction in inequality. Quality of written communication is satisfactory.

Level 3 ([5]–[6])

Candidate provides a clear and comprehensive explanation of how the UK economy might benefit from a reduction in inequality. Quality of written communication is of a high standard. [6]

(f) There are a range of policies the UK government could use to reduce income and wealth inequality. These include:

1. Change the tax and benefit system

- Increase the higher rate of income tax. This will make the tax system more progressive and will reduce the income of the top earners. The money could then be redistributed to the poorest
- Cut the lower rate of income tax and increase the level of the tax-free allowance. This should reduce the poverty trap and encourage people to look for work
- Introduce a tax on wealth where individuals would pay an annual tax based on the total value of their assets
- Change the bands of the council tax (domestic rates in NI) to make it more progressive
- Lower the nil rate band for inheritance tax – *currently* £325 000 and create bands to make it more progressive
- Reduce the availability of universal state benefits and switch towards more means tested benefits. This would save the government money and the money will go to those who need it most
- Link benefits to average earnings instead of average prices.

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2. Measures to increase the income and wealth of the bottom quintile

- Increasing the NMW will help to increase the incomes of the low paid and also improve the incentive for people to find work
- Encourage firms to pay a living wage
- Legislate against unpaid internships and zero hours contracts
- Increase the pay of low-paid public sector workers
- Introduce compulsory pensions savings to encourage the poor to build up a stock of wealth
- Expand schemes such as right to buy and shared ownership to help poorer people build a stock of property wealth.

3. Measures to reduce unemployment and economic inactivity.

- The government have used special employment measures such as the single work programme (known as the steps to work programme in NI) to improve job prospects of the unemployed
- Regional policy assistance. The government can focus attention on areas of high unemployment and inactivity to encourage firms to locate there.

Candidates should not just explain policies but also subject them to a degree of critical examination.

Level 1 ([1]–[4])

Candidate provides little evaluation of the policies the UK government could use to reduce income or wealth inequality. There is little analysis and application to the UK. Quality of written communication is limited.

Level 2 ([5]–[8])

Candidate provides some evaluation of the policies the UK government could use to reduce income and wealth inequality. At this level a candidate may focus exclusively on policies to reduce income inequality, with little reference to policies to reduce wealth inequality. There is a degree of analysis and application to UK economy. Quality of written communication is satisfactory.

Level 3 ([9]–[12])

Candidate provides comprehensive evaluation of the policies the UK government could use to reduce income **and** wealth inequality. There is significant analysis and application through relevant examples. Quality of written communication is of a high standard.

[12]

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2 Theory of demand and supply outdated and unrealistic

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- (a) Demand is defined as the quantity of a good or service that consumers are willing and able to buy over a range of prices in a given time period. An increase in demand means that consumers are willing to purchase more of a product at all price levels. It is represented by a rightward shift in the demand curve. An increase in demand can be caused by a range of factors such as a change in the price of complements or substitutes, a change in government policy, advertising or changes in expectations.

Quantity demanded is defined as the quantity of a good or service that a consumer is willing and able to buy at a given price in a given time period. An increase in quantity demanded occurs whenever the price of a good falls and consumer decides to purchase more of the good as it now represents a better deal than before. It is represented by a movement along the demand curve in a downward direction and is generally caused by an increase in supply.

Appropriate development

- Definition of demand
- Reference to demand curve
- Conditions of demand
- Appropriate diagrams showing shifts in demand curve and movement along demand curve
- Appropriate examples.

Level 1 ([1]–[3])

Candidate shows little understanding of difference between an increase in demand and an increase in quantity demanded. There is no significant development and quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some understanding of difference between an increase in demand and an increase in quantity demanded. There is a degree of development and quality of written communication is satisfactory.

Level 3 ([8]–[10])

Candidate shows clear understanding of difference between an increase in demand and an increase in quantity demanded. There is significant development and quality of written communication is of a high standard. [10]

- (b) A change in demand or supply in one market may have an impact on a range of other markets.

The markets most likely to be affected are:

- The market for substitute goods
- The market for complementary goods
- The market for goods which are in joint supply
- The markets for the factors of production used in this and other products
- The market for other goods for which this product is a factor input.

Issues for analysis include:

- Use of appropriate diagrams
- Appropriate examples
- Reference to cross price elasticity of demand.

Level 1 ([1]–[5])

Candidate provides little explanation of how a change in demand or supply in one market may have effects on other markets. There is no significant economic analysis and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some explanation of how a change in demand or supply in one market may have effects on other markets. There is a degree of economic analysis and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides a clear and comprehensive analysis of how a change in demand or supply in one market may have effects on other markets. There is significant economic analysis and quality of written communication is of a high standard. [15]

- (c) The theory of demand is based on the view that, so long as other factors remain unchanged, rational consumers will be prepared to buy more of a product when price falls and less when it rises and hence the demand curve will slope downwards from left to right. A price fall gives consumers greater real income and also makes substitute goods less attractive and therefore quantity demanded increases. A price fall also increases the marginal utility to price ratio and the potential consumer surplus.

Some economists however argue that consumers do not always act rationally, and that there may be circumstances when they would be prepared to buy more of a particular product at higher prices. For example some goods may be purchased at higher prices for altruistic or speculative purposes.

Nevertheless, in practice, there seems to be very little evidence to support the existence of an upward sloping demand curve. Many of the examples quoted can often be better explained by shifts of the demand curve brought about by non-price factors.

Issues for analysis and discussion include:

- Discussion of why demand curve is assumed to be downward sloping
- Discussion of goods purchased for conspicuous consumption
- Altruistic purchase of fair trade and environmentally friendly products
- Giffen goods where a negative income effect may overcome a positive substitution effect
- Speculative goods
- Discussion of irrational behaviour on behalf of consumers
- Impact of marketing on consumer decisions
- If price is perceived to be an indication of quality consumers may demand more of a good at higher prices
- Appropriate examples
- Appropriate diagrams.

Level 1 ([1]–[5])

Candidate displays little understanding of the view that in the real world the demand curve is just as likely to be upward sloping as downward sloping. There is little or no significant evaluation of the issues and quality of written communication is limited.

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Level 2 ([6]–[10])

Candidate provides some understanding of the view that in the real world the demand curve is just as likely to be upward sloping as downward sloping. There is a degree of evaluation and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides a clear and comprehensive understanding of the view that in the real world the demand curve is just as likely to be upward sloping as downward sloping. There is significant evaluation and judgement and quality of written communication is of a high standard. [15]

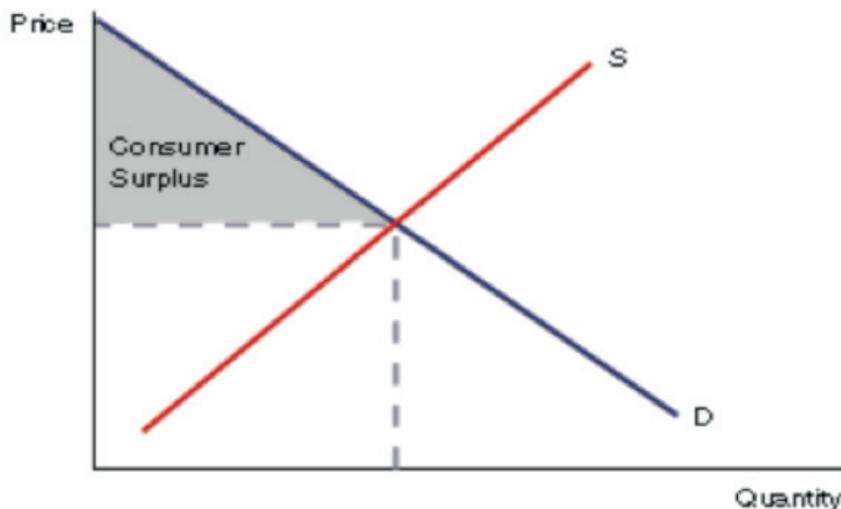
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3 Death by binge drinking leads to calls for the introduction of a minimum price on alcohol

- (a) Consumer surplus is defined as the difference between what a consumer is willing to pay for a good and the price they actually pay. If a consumer is willing to pay £20 for a bottle of wine but the market price of the wine is £12 then the consumer earns a welfare bonus of £8. This welfare bonus is known as consumer surplus.

Consumer surplus can be shown on a diagram. It is equal to the area under the demand curve above the price line.



Appropriate development

- Definition/explanation of consumer surplus
- Numerical example
- Appropriate diagram
- Impact of PED on consumer surplus
- Appropriate examples.

Level 1 ([1]–[3])

Candidate shows little knowledge or understanding of consumer surplus. There is at best a seriously flawed definition and little development through relevant examples, diagrams or technical language. Quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some knowledge or understanding of consumer surplus. There is a credible definition though this may contain minor errors and some development through relevant examples, diagrams or technical language. Quality of written communication is satisfactory.

Level 3 ([8]–[10])

Candidate shows comprehensive knowledge or understanding of consumer surplus. There is an accurate definition and comprehensive development through relevant examples, diagrams or technical language. Quality of written communication is of a high standard.

[10]

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- (b) The introduction of a minimum price per unit of alcohol, set above the equilibrium price, will lead to a situation of excess supply. It will also lead to a reduction in consumer surplus and an increase in producer surplus.

The minimum price may also lead to the creation of illegal markets where alcohol is sold below the minimum price.

Clearly if the minimum price was set below the equilibrium it would have no impact on consumer or producer surplus.

Issues for analysis and discussion include:

- Impact on consumer and producer surplus
- Impact on individuals who consume alcohol
- Minimum pricing has greater impact on lower income groups
- Impact on breweries, supermarkets, pubs and off licences
- Reference to possible creation of illegal markets where alcohol is sold below the minimum price and the consequent enforcement problems
- Discussion of impact on market for substitutes and complements
- Discussion of welfare loss
- Distinctions between private and social costs and benefits
- Reference to price elasticity of demand and supply of alcohol
- Relevant diagrams
- Appropriate examples.

Level 1 ([1]–[5])

Candidate provides little analysis of the likely impact on economic welfare of the introduction of a minimum price for a unit of alcohol. At this level a candidate may discuss some of the wider implications of a minimum price such as non-compliance and enforcement problems without focusing on the impact on economic welfare. There are few if any relevant examples and diagrams will be non-existent or seriously flawed. Quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some analysis of the likely impact on economic welfare of the introduction of a minimum price for a unit of alcohol. There are some relevant examples, perhaps supported by a relevant, if slightly flawed diagram. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides comprehensive analysis of the likely impact on economic welfare of the introduction of a minimum price for a unit of alcohol. There is significant development through examples and or flawless diagrams. Quality of written communication is of a high standard. [15]

- (c) There is a range of alternative policies the government could use to reduce binge drinking and the over-consumption of alcohol. These include:

- Increased taxation
- Increasing the age restriction for the purchase of alcohol
- Reducing the number of licensed premises
- Reducing licensed hours
- Education about the dangers of alcohol consumption
- Complete prohibition.

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Issues, analysis and areas for discussion include:

- Revenue raised through higher taxation
- Difficulty in enforcing restrictions on the sale of alcohol
- Success or otherwise of education campaigns
- Inefficiency of government intervention
- Historical examples
- Relevant examples
- Impact of policies on those who drink sensibly
- Relevant diagrams.

Level 1 ([1]–[5])

Candidate displays little understanding of the range of policy options open to government to reduce binge drinking. There is little significant evaluation of the issues and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some understanding of the range of policy options open to government to reduce binge drinking. There is a degree of evaluation and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides a clear and comprehensive understanding of the range of policy options open to government to reduce binge drinking. There is significant evaluation and judgement and quality of written communication is of a high standard. [15]

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4. Government's green agenda criticised for being costly and counterproductive.

- (a) A positive externality occurs when the activity of one economic agent has a positive impact on a third party. Positive externalities can result from both the production of goods and services and from their consumption.

One household maintaining a neat garden can have a positive impact on the value of neighbours' houses. Warm water discharged from a power station can increase shellfish yields.

Appropriate development

- Distinction between consumption and production externalities
- Description of nature of external benefits and how they are received.
- Reference to merit goods
- Reference to market failure
- Relevant diagrams
- Appropriate examples.

Level 1 ([1]–[3])

Candidate shows little knowledge or understanding of the term positive externality. There is at best a seriously flawed definition and little development through relevant examples, diagrams or technical language. Quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some knowledge or understanding of the term positive externality. There is a credible definition though this may contain minor errors and some development through relevant examples, diagrams or technical language. Quality of written communication is satisfactory.

Level 3 ([8]–[10])

Candidate shows comprehensive knowledge or understanding of the term positive externality. There is an accurate definition and comprehensive development through relevant examples, diagrams or technical language. Quality of written communication is of a high standard [10]

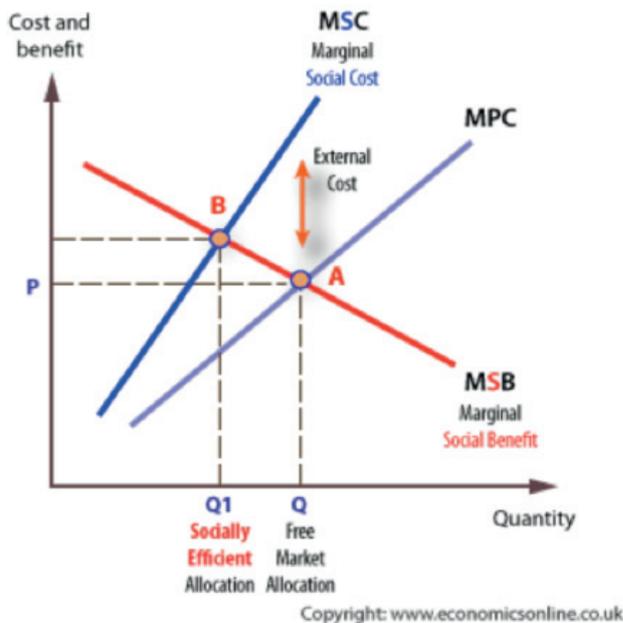
- (b) A negative externality occurs whenever the activity of one economic agent has a negative effect on the well-being of a third party.

Whenever production creates negative externalities the marginal social cost of production is greater than the marginal private cost.

In free markets firms only consider the private costs of production and therefore produce at the point where demand is equal to marginal private cost, point A on the diagram.

However production at this level represents an inefficient allocation of resources since the price charged does not equal the full marginal social cost of production. The only point at which price equals MSC is point B.

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Issues for analysis include:

- Definition of free market
- Definition of negative externality
- Reference to allocative efficiency
- Reference to market failure
- Distinction between private costs, external costs and social costs
- Use of appropriate diagrams
- Appropriate examples.

Level 1 ([1]–[5])

Candidate displays little understanding of why the existence of negative externalities may cause firms in free markets to produce at a level which is economically inefficient. There is no significant economic analysis and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate displays some understanding of why the existence of negative externalities may cause firms in free markets to produce at a level which is economically inefficient. There is a degree of economic analysis and application and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate displays comprehensive understanding of why the existence of negative externalities may cause firms in free markets to produce at a level which is economically inefficient. There is comprehensive and accurate economic analysis and quality of written communication is of a high standard. [15]

- (c) A growing number of economists argue that government attempts to reduce negative externalities is damaging not only to economic welfare and prosperity but may also be leading to greater levels of environmental degradation.

They argue that government policies are often poorly thought out and are expensive for the business to comply with and the government to police. They argue that some initiatives are so poorly designed that they lead to

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a worsening of the situation. For example, some economists argue that, attempts to encourage the recycling of paper, actually leads to a reduction in tree planting and therefore increases CO₂ levels in the atmosphere.

They argue that the use of environmental taxation and tradable permits increases the cost of production and so leads to higher prices and a reduction in economic welfare. They argue that subsidies for green production distort markets and are costly to administer. Finally some economists even question the science upon which much of the move towards environmentalism is based.

However other economists argue that negative externalities are a form of market failure and that government must take some action to correct the failure. They argue that well designed policies that work with the market can increase efficiency and improve outcomes not only for current generations but also future generations.

Areas for analysis and discussion include:

- Definition/explanation of market failure
- Examples of negative externalities
- Reference to range of government environmental policies
- Impact of these policies on businesses and economic welfare (positive and negative)
- Impact of policies on environment (positive and negative)
- Reference to an optimal level of environmental pollution
- Reference to government failure
- Reference to the law of unintended consequences
- Reference to examples of failed policies
- Appropriate diagrams
- Appropriate examples.

Level 1 ([1]–[5])

Candidate shows little understanding of the view that government intervention to reduce negative externalities is more likely to reduce economic efficiency than improve it. There is no significant analysis, application or evaluation and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate shows some understanding of the view that government intervention to reduce negative externalities is more likely to reduce economic efficiency than improve it. There is some attempt at analysis, application and evaluation and quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate shows in-depth understanding of the view that government intervention to reduce negative externalities is more likely to reduce economic efficiency than improve it. There is significant analysis, application and evaluation of the arguments and quality of written communication is of a high standard.

[15]

Total

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80