



**ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2024**

Economics

Assessment Unit AS 1

assessing

Markets and Market Failure

[SEC11]

MONDAY 13 MAY, MORNING

**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.

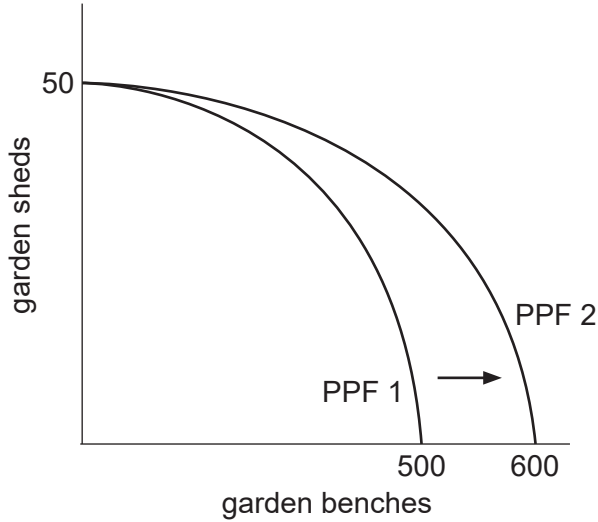
In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

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) For calculation of opportunity cost as 242 benches (382–140) [2]
 For correct methodology but error in calculation or presentation [1] [2]
- (b) The purchase and use of the new piece of machinery will increase the production of benches by 20% at each point and hence cause a shift in the PPF as is shown in the diagram below. The production possibilities of sheds will not change.



For accurately drawn and fully labelled diagram [3]
 For clear explanation that the output of benches will increase (by 20%) [1] [4]

- 2 For calculation that quantity demanded will increase by 10.4% ($+1.3 \times 8\%$)
 Up to [2] for correct methodology but error in calculation or presentation [3]

- 3 (a) For calculation of total revenue as £40.5 million ($£9,000 \times 4,500$) [2]
 For correct methodology but error in calculation or presentation [1] [2]

- (b) For calculation of the total cost of the subsidy as £22 million
 ($£4,000 \times 5,500$) [4]
 Up to [3] for correct methodology but error in calculation or presentation [4]

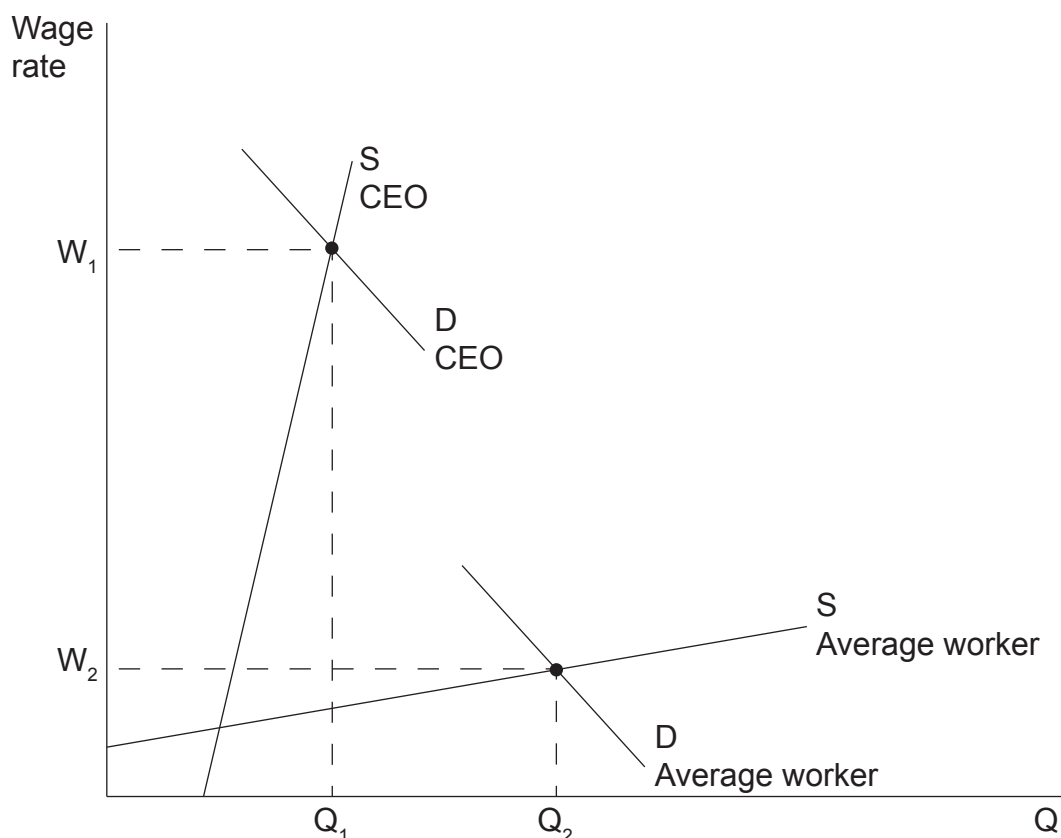
- 4 Absolute poverty exists when individuals do not have enough to consume the basic necessities, e.g. food, clothes, shelter. Obviously the 2.5 million people who could not afford adequate food and shelter could be considered to be living in absolute poverty.

Relative poverty measures the degree of poverty when compared to the average income of the society in which the individual lives. Obviously the one in five who are living on incomes below 60% of UK median income could be considered as living in relative poverty.

For clear definition/explanation of absolute and relative poverty [2]
 For appropriate examples [2] [4]

AVAILABLE MARKS	
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3	
6	
4	

- 5 In a free market wages are determined solely by the forces of demand and supply. The market theory of wages states that wage differentials are due to differences in demand and supply conditions for different occupations. For example, the wages of a CEO (company boss) are higher than the wages of the average worker because the supply of individuals with the skills to manage a large company is much more limited (inelastic) than the supply of workers with the skill to do more typical jobs. Equally the demand for a highly experienced CEO is likely to be much higher (more inelastic) than the demand for a typical worker. This combination of high demand and limited supply will lead to a higher equilibrium wage for highly skilled workers such as CEO's, W_1 in the diagram below.



Issues, analysis and areas for discussion include:

- Reference to different elasticities of supply for CEOs and average workers.
- Reference to demand and supply conditions for different occupations.
- Reference to how equilibrium wage is determined.
- Reference to the skills levels of workers.
- Reference to human capital differences: – some jobs require lengthy training and education, and this is reflected in higher wages.
- Appropriate examples.

Level 1 ([1]–[2])

A basic response provides an answer that demonstrates:

- Basic knowledge and understanding of relevant terminology, concepts, principles and models.
- Basic application of relevant economic principles, terminology, concepts and models to the context of the question; limited use of relevant data, and diagrams where relevant, to address the issues in the question.
- Basic analysis; may lack focus.

- A low quality of written communication.

Level 2 ([3]–[4])

A good response provides an answer that demonstrates:

- Good knowledge and understanding of relevant terminology, concepts, principles and models.
- Good application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used reasonably to address the issues in the question.
- Good analysis in relation to the impact on economic agents; analysis may not be developed fully or may have some inaccuracy at times.
- A good quality of written communication.

Level 3 ([5]–[6])

An excellent response provides an answer that demonstrates:

- Excellent accurate knowledge and understanding of relevant terminology, concepts, principles and models.
- Excellent application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used effectively to address the issues in the question.
- Well focused, relevant analysis used accurately and appropriately in relation to the impact on economic agents.
- An excellent quality of written communication. [6]

6

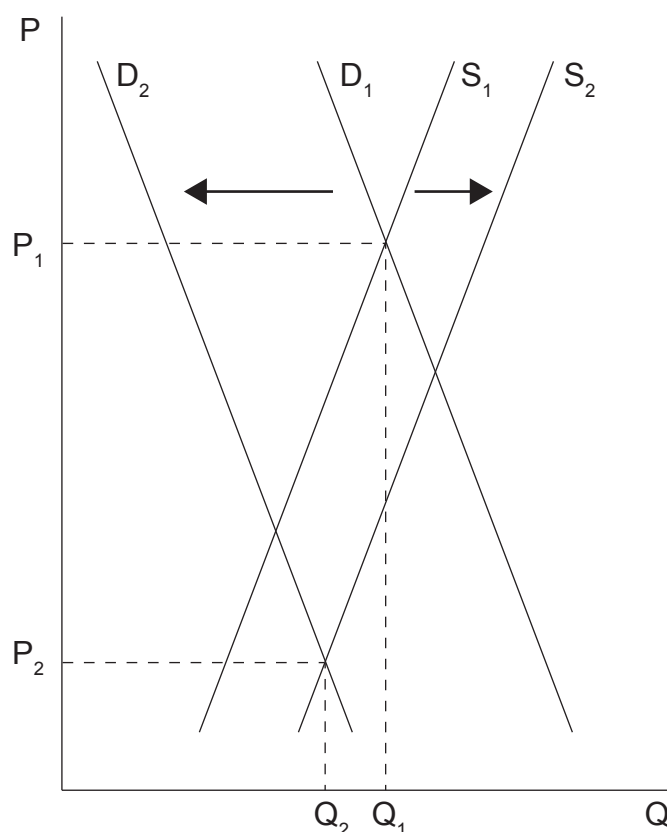
- 6 (a)**
- The price of oil has been on a general upward trend over the period shown. It has increased by approx 43%.
 - At the beginning of May 2021 oil was trading at \$68.50 per barrel.
 - The oil price peaked in early March reaching \$123.20 per barrel.
 - This represents an increase of approximately 80% (79.85%).
 - The rapid increase in oil price occurred between December 2021 and March 2022.
 - Oil price fell between March 2022 and May 2022 reaching \$98.30 per barrel.
 - This represents a decrease of approximately 20% (20.21%).
 - There are significant fluctuations in the oil price.

Up to [3] for description of trends in absolute terms

Up to [2] for appropriate manipulation of data

[5]

- (b) The idea that the best cure for high oil prices are high oil prices is based on the fact that a high price of oil will have an impact on the demand and supply conditions for oil which will conspire to reduce prices. For example, a high oil price has a significant impact on disposable income, which in turn leads to lower levels of total demand in the economy which in turn reduces the demand for oil. At the same time, high oil prices encourage investment in oil production (as it is more profitable) and hence the supply of oil increases. This decrease in demand and increase in supply tends to reduce the price of oil. This is shown on the diagram below.



Issues and areas for analysis include:

- Impact of high oil prices on disposal income.
- Impact of fall in disposable income on demand.
- Impact of high oil prices on investment decisions.
- Impact of investment decisions on supply.
- Impact of falling demand on price.
- Impact of increasing supply on price.
- Relevant diagrams.
- Relevant examples.

Level 1 ([1]–[2])

A basic response provides an answer that demonstrates:

- Basic knowledge and understanding of relevant terminology, concepts, principles and models.
- Basic application of relevant economic principles, terminology, concepts and models to the context of the question; limited use of relevant data, and diagrams where relevant, to address the issues in the question.
- Basic analysis; may lack focus.
- A low quality of written communication.

Level 2 ([3]–[4])

A good response provides an answer that demonstrates:

- Good knowledge and understanding of relevant terminology, concepts, principles and models.
- Good application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used reasonably to address the issues in the question.
- Good analysis in relation to the impact on economic agents; analysis may not be developed fully or may have some inaccuracy at times.
- A good quality of written communication.

Level 3 ([5]–[6])

An excellent response provides an answer that demonstrates:

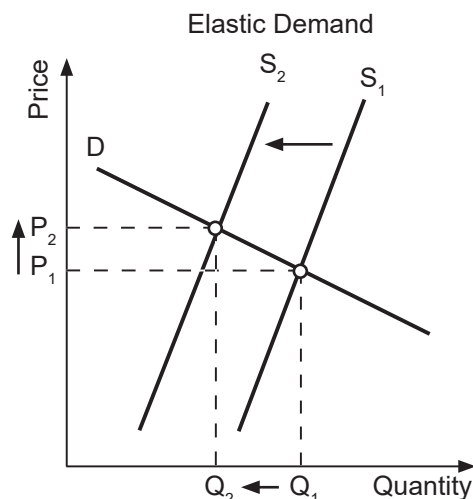
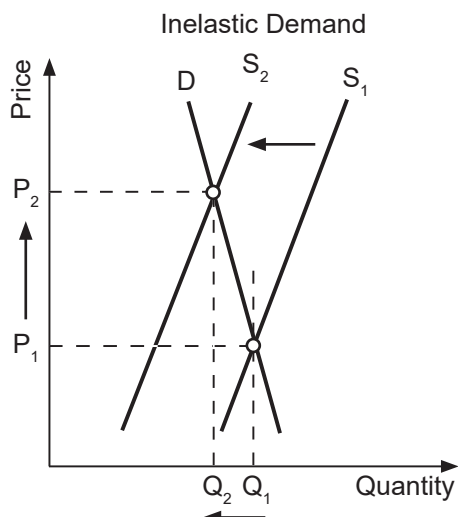
- Excellent accurate knowledge and understanding of relevant terminology, concepts, principles and models.
- Excellent application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used effectively to address the issues in the question.
- Well focused, relevant analysis used accurately and appropriately in relation to the impact on economic agents.
- An excellent quality of written communication.

[6]

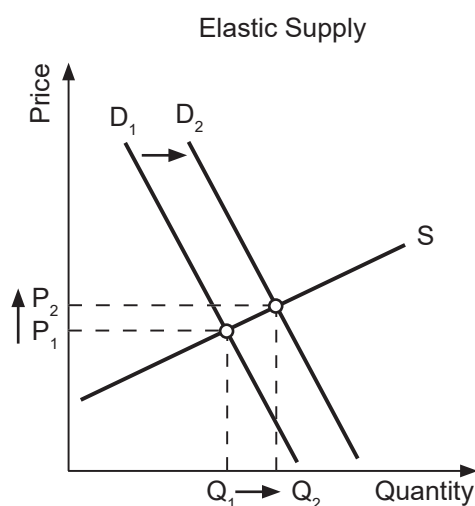
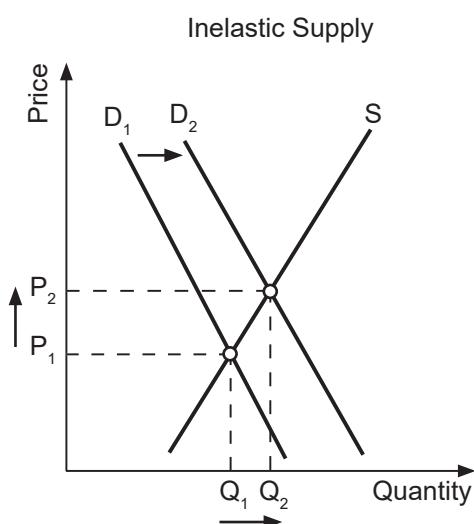
AVAILABLE
MARKS

(c) If demand is relatively inelastic then even small changes in supply can lead to large changes in price. This is shown on the diagrams below.

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MARKS



Likewise, if supply is relatively inelastic then small changes in demand can lead to relatively large changes in price. This is shown on the diagrams below.



Issues and areas for analysis include:

- Definition/explanation of PED.
- Definition/explanation of PES.
- Explanation of how PED and PES are calculated.
- Explanation of how a low PED leads to significant price changes when supply changes.
- Explanation of how a low PES leads to significant price changes when demand changes.
- Appropriate examples.
- Appropriate diagrams.

Level 1 ([1]–[3])

A basic response provides an answer that demonstrates:

- Basic knowledge and understanding of relevant terminology, concepts, principles and models.
- Basic application of relevant economic principles, terminology, concepts

and models to the context of the question; limited use of relevant data, and diagrams where relevant, to address the issues in the question.

- Basic analysis; may lack focus.
- A low quality of written communication.

Level 2 ([4]–[6])

A good response provides an answer that demonstrates:

- Good knowledge and understanding of relevant terminology, concepts, principles and models.
- Good application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used reasonably to address the issues in the question.
- Good analysis in relation to the impact on economic agents; analysis may not be developed fully or may have some inaccuracy at times.
- A good quality of written communication.

Level 3 ([7]–[9])

An excellent response provides an answer that demonstrates:

- Excellent accurate knowledge and understanding of relevant terminology, concepts, principles and models.
- Excellent application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used effectively to address the issues in the question.
- Excellent, relevant analysis used accurately and appropriately in relation to the impact on economic agents. [9]

(d) Falling oil prices may be regarded as beneficial in a number of ways.

- Falling prices leads to an increase in consumer welfare as measured by consumer surplus.
- Falling oil prices filter through to a fall in the price of goods which use oil in the production process- petrol, plastics, etc.
- Falling oil prices can lead to an increase in real disposable incomes.
- Falling oil prices can contribute to falling rates of inflation.
- Falling oil prices may be good for the environment as they make marginal investments in hard to reach oil less attractive.

However, falling oil prices can be detrimental in a number of ways.

- Falling oil prices can lead to an increase in consumption of oil and its related products which can damage the environment.
- Falling oil prices can hinder investment in alternative energy sources.
- Falling oil prices can lead to falling profits which can in turn lead to oil firms being careless with environmental and health and safety standards in an attempt to reduce costs.
- Falling oil prices can lead to job losses in oil production.
- Falling oil prices can lead to lower tax revenues for governments as some of the tax on oil are ad valorem in nature.

Issues, analysis and areas for discussion include:

- Impact of falling oil prices on community surplus.
- Impact of falling oil prices on related markets.
 - Substitutes

- Complements
- Factors markets
- Impact of falling oil prices on macroeconomic issues such as:
 - disposable incomes
 - aggregate demand
 - inflation
 - employment
- Impact of falling oil prices on environment.
- Impact of falling oil prices on company profits and investment decisions.
- Impact on government revenues.
- Appropriate examples.
- Appropriate diagrams.

Level 1 ([1]–[5])

A basic response provides an answer that demonstrates:

- Basic knowledge and understanding of relevant terminology, concepts, principles and models.
- Basic application of relevant economic principles, terminology, concepts, and models to the context of the question. Some limited use of data, and diagrams where relevant, in relation to the context of the question.
- Basic analysis and evaluation; however, this may lack focus.
- Judgement(s) unsupported.
- A low quality of written communication.

Level 2 ([6]–[10])

A good response provides an answer that demonstrates:

- Good knowledge and understanding of relevant terminology, concepts, principles and models.
- Good application of relevant economic principles, terminology, concepts, and models to the context of the question; where relevant, some reasonable use of data and diagrams in relation to the context of the question.
- Good analysis and evaluation in relation to the impact on economic agents; however, this may not be developed fully or may have inaccuracies at times.
- Reasonable judgement(s) building on analysis.
- A good quality of written communication.

Level 3 ([11]–[15])

An excellent response provides an answer that demonstrates:

- Excellent accurate knowledge and understanding of relevant terminology, concepts, principles and models.
- Excellent application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used effectively to address the issues in the question.
- Well focused, relevant analysis and evaluation used accurately and appropriately in relation to the impact on economic agents.
- Informed judgements that directly address the issues in the question and reach clear conclusions built on analysis.
- An excellent quality of written communication.

[15]

35

- 7 Free market economists argue that while markets sometimes fail to provide efficient outcomes, government intervention to correct these market failures often leads to a loss of economic welfare rather than a gain. In the question stem we are told that government spending on free nursery places for 3 year olds has produced no valuable benefits.

There are a number of reasons why government failure can occur:

- Information failure – governments may take action on the basis of inaccurate or misleading information – it might be intuitive to believe that free nursery places for the poorest 3 year olds will benefit them in terms of educational outcomes – however this is little evidence to suggest this is actually the case.
- Lack of expertise – sometimes governments intervene in complex markets which they do not fully understand and hence the intervention is ineffective or indeed harmful.
- Conflicting objectives – sometimes the appropriate government intervention is politically unpopular and is therefore ignored, or a politically popular intervention is implemented despite its known ineffectiveness.
- Administration costs – sometimes the cost of administering a policy response is greater than the benefits gained.
- Market distortions – where intervention to correct a market failure leads to problems in other markets.

However, those who support government intervention argue that governments need to take action to reduce market failures. Such intervention includes the provision of public and merit goods, the regulation of demerit goods and protection of the environment. They argue that well-planned and appropriate government intervention can reduce the inefficiency or inequality of the market system and can therefore lead to an improvement in economic welfare for all.

Issues, analysis and areas for discussion include:

- Definition/explanation of government failure.
- Reference to causes of government failure.
- Reference to examples of government failure.
- Reference to successful forms of government intervention.
- Reference to market failure and the need to respond.
- Appropriate examples.
- Appropriate diagrams.

Level 1 ([1]–[7])

A basic response provides an answer that demonstrates:

- Basic knowledge and understanding of relevant terminology, concepts, principles and models.
- Basic application of relevant economic principles, terminology, concepts, and models to the context of the question; some limited use of data, and diagrams where relevant, in relation to the context of the question.
- Basic analysis and evaluation; however, this may lack focus.
- Judgement(s) unsupported.
- A low quality of written communication.

Level 2 ([8]–[14])

A good response provides an answer that demonstrates:

- Good knowledge and understanding of relevant terminology, concepts, principles and models.
- Good application of relevant economic principles, terminology, concepts, and models to the context of the question; some reasonable use of data, and diagrams where relevant, in relation to the context of the question.
- Good analysis and evaluation in relation to the impact on economic agents; however, this may not be developed fully or may have inaccuracies at times.
- Reasonable judgement(s) building on analysis.
- A good quality of written communication.

Level 3 ([15]–[20])

An excellent response provides an answer that demonstrates:

- Excellent accurate knowledge and understanding of relevant terminology, concepts, principles and models.
- Excellent application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used effectively to address the issues in the question.
- Well focused, relevant analysis and evaluation used accurately and appropriately in relation to the impact on economic agents.
- Informed judgements that directly address the issues in the question and reach clear conclusions built on analysis.
- An excellent quality of written communication. [20]

**AVAILABLE
MARKS**

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- 8 The production of gold has raised a number of environmental concerns primarily regarding the negative externalities associated with using cyanide to extract the gold from the ore. There are however a number of policies that the government could use to reduce the environmental impact of gold production. These include the introduction of tough regulations and the imposition of fines for polluting firms. Alternative policies include environmental taxation, the use of tradable pollution permits, the provision of subsidies to encourage environmentally friendly production and the extension of property rights.

Each of these policies has its strengths and weaknesses – however most economists would argue that the best policy is one which would internalise the externality and make the polluter pay the full social cost of production.

Issues, analysis and areas for discussion include:

- Explanation of negative externalities, socially optimal production levels and market failure.
- Reference to the use of environmental taxes and their drawbacks
 - Tax avoidance
 - Laffer curve effects.
- Reference to the use of environmental regulation and its drawbacks
 - Regulatory capture
 - Cost of regulation to firm and government.
- Reference to use of licences and tradable permits and their drawbacks
 - Administration cost
 - Difficulty setting appropriate pollution levels.
- Reference to use of environmental subsidies and their drawbacks
 - Opportunity cost of subsidies
 - Impact on government finances.
- Impact of each policy on market price.
- Impact of each policy on efficiency.
- Reference to government failure.
- Appropriate examples.
- Appropriate diagrams.

Level 1 ([1]–[7])

A basic response provides an answer that demonstrates:

- Basic knowledge and understanding of relevant terminology, concepts, principles and models.
- Basic application of relevant economic principles, terminology, concepts, and models to the context of the question; some limited use of data, and diagrams where relevant, in relation to the context of the question.
- Basic analysis and evaluation, however, this may lack focus.
- Judgement(s) unsupported.
- A low quality of written communication.

Level 2 ([8]–[14])

A good response provides an answer that demonstrates:

- Good knowledge and understanding of relevant terminology, concepts, principles and models.
- Good application of relevant economic principles, terminology, concepts, and models to the context of the question; some reasonable use of data, and diagrams where relevant, in relation to the context of the question.
- Good analysis and evaluation in relation to the impact on economic agents;

however, this may not be developed fully or may have inaccuracies at times.

- Reasonable judgement(s) building on analysis.
- A good quality of written communication.

Level 3 ([15]–[20])

An excellent response provides an answer that demonstrates:

- Excellent accurate knowledge and understanding of relevant terminology, concepts, principles and models.
- Excellent application of relevant economic principles, terminology, concepts and models to the context of the question; where relevant, data and diagrams are used effectively to address the issues in the question.
- Well focused, relevant analysis and evaluation used accurately and appropriately in relation to the impact on economic agents.
- Informed judgements that directly address the issues in the question and reach clear conclusions built on analysis.
- An excellent quality of written communication.

[20]

Total

**AVAILABLE
MARKS**

20

80