ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2022

Economics

Assessment Unit AS 1

assessing

Markets and Market Failure

[SEC11]

MONDAY 16 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.

COVID-19 Context

Given the unprecedented circumstances presented by the COVID-19 public health crisis, senior examiners, under the instruction of CCEA awarding organisation, are required to train assistant examiners to apply the mark scheme in case of disrupted learning and lost teaching time. The interpretation and intended application of the mark scheme for this examination series will be communicated through the standardising meeting by the Chief or Principal Examiner and will be monitored through the supervision period. This paragraph will apply to examination series in 2021-2022 only.

1 Marginal cost is the change in total cost from the production of an additional unit of output. The marginal cost of the 6th Puzzle Cube is £5.

[2] for definition or explanation of marginal cost
[1] for calculation of marginal cost as £5 [3]

3

2 (a) A normal good is a good or service with a positive income elasticity of demand such as cigarettes. An inferior good is a good with a negative income elasticity of demand such as loose tobacco.

[2] for accurate definition or explanation of normal and inferior goods
[2] for appropriate examples [4]

(b) For an answer of –6% (–0.48 × 12.5%) [4]
For correct methodology but error in calculation or presentation up to [3] [4]

8

3 Information asymmetry occurs when one party to an economic transaction possesses greater material knowledge than the other party. In the used car market the seller has much more information about the quality of the car than the buyer and can use this information to exploit the buyer and sell them a "lemon". This may explain why complaints have increased significantly as online sales have risen.

[2] for accurate definition or explanation of information asymmetry
[2] for application to the used car market [4]

4

4 (a) [2] for calculation of the median hourly wage rate of £13.92
(£8.21 ÷ 59 × 100)
for correct methodology but error in calculation or presentation [1] [2]

(b) [2] for calculation of economic rent of £1.21 per hour
for correct methodology but error in calculation or presentation [1] [2]

4

5 Consumer surplus is the difference between the maximum price a consumer is willing to pay for a good or service and the price they actually pay. The introduction of a minimum price would reduce consumer surplus from area ACP_1 to area ABP_2 on the diagram below:
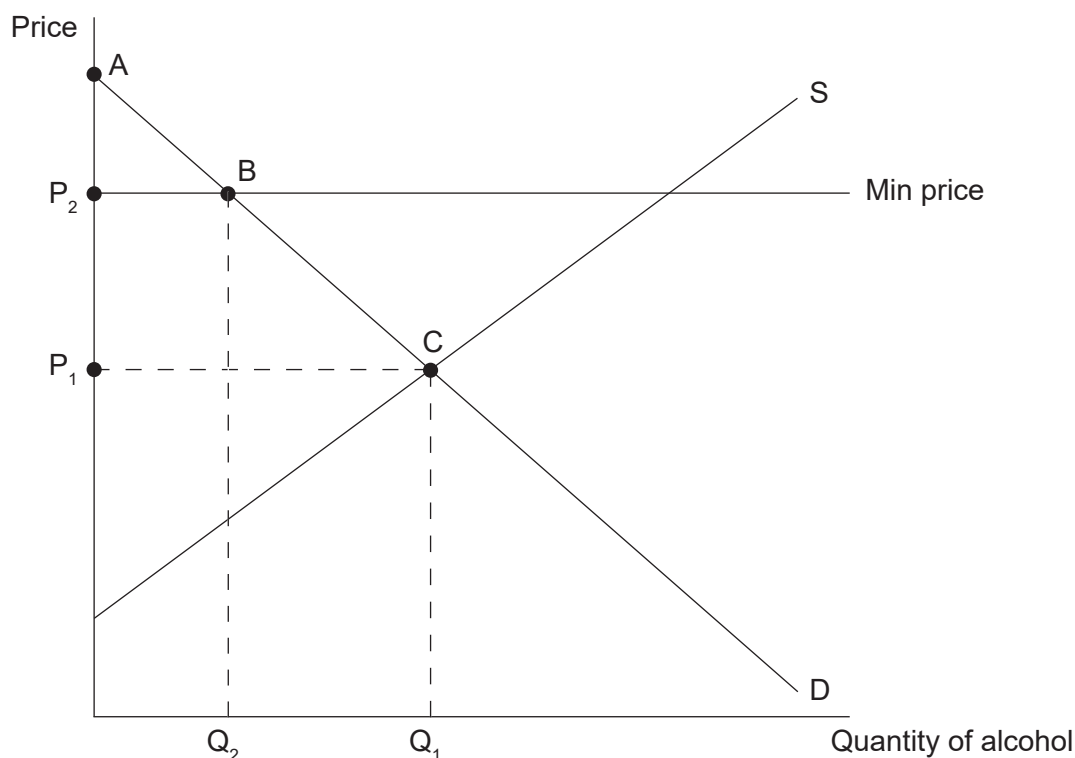
Issues and areas for analysis include:
- Explanation of consumer surplus
- Explanation of a minimum price
- Reference to importance of PED on determining the impact
- Appropriate examples
- Appropriate diagram

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]

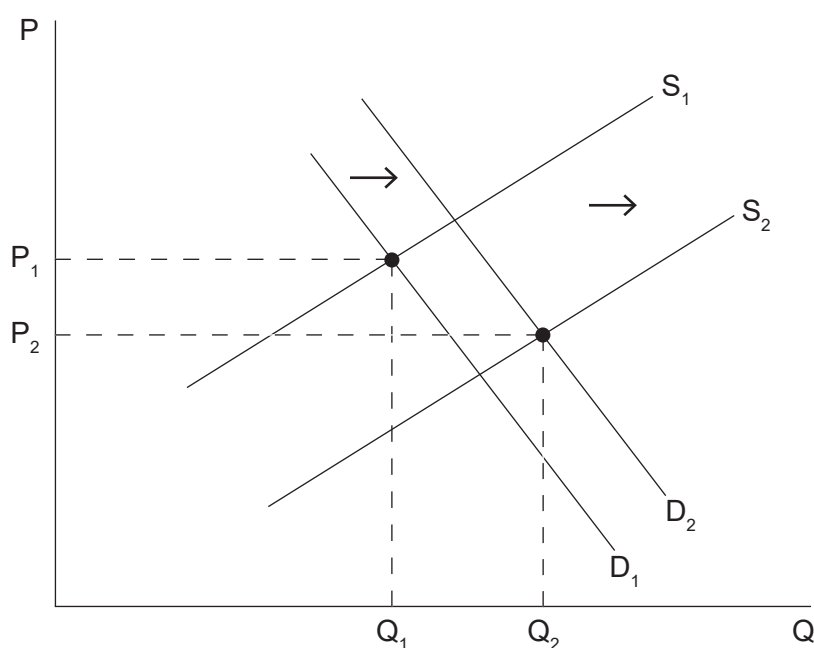|	6
Section Total	**25**

6 **(a)** Scotland has a drug death rate of 211 deaths per million people which is the highest in the table. It is almost 3 (2.8) times higher than the UK average. It is 7 times that of Germany and a massive 42 times that of Portugal – two countries which have more relaxed drug laws.

[2] for comparison in absolute terms
[3] for appropriate manipulation of data to show difference in relative terms **[5]**

(b) If the price of drugs is falling at a time when demand is increasing this must mean that supply is increasing at a faster pace than demand. This is shown in the diagram below:

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]

(c) Market failure occurs when the market mechanism leads to an inefficient or inequitable allocation of resources. Drugs are considered by many economists to be examples of demerit goods. The consumption of a demerit good such as drugs by one economic agent may confer negative externalities on society (increased illness and resulting reduction in labour productivity and additional cost to the NHS) and therefore would be over-consumed if provided through the market.

This is illustrated on the diagram below where the marginal social benefit of consumption (MSB) is less than the marginal private benefit (MPB). This results in the free market equilibrium (FME) occurring at a higher consumption level than the socially optimal equilibrium (SOE) level of consumption.
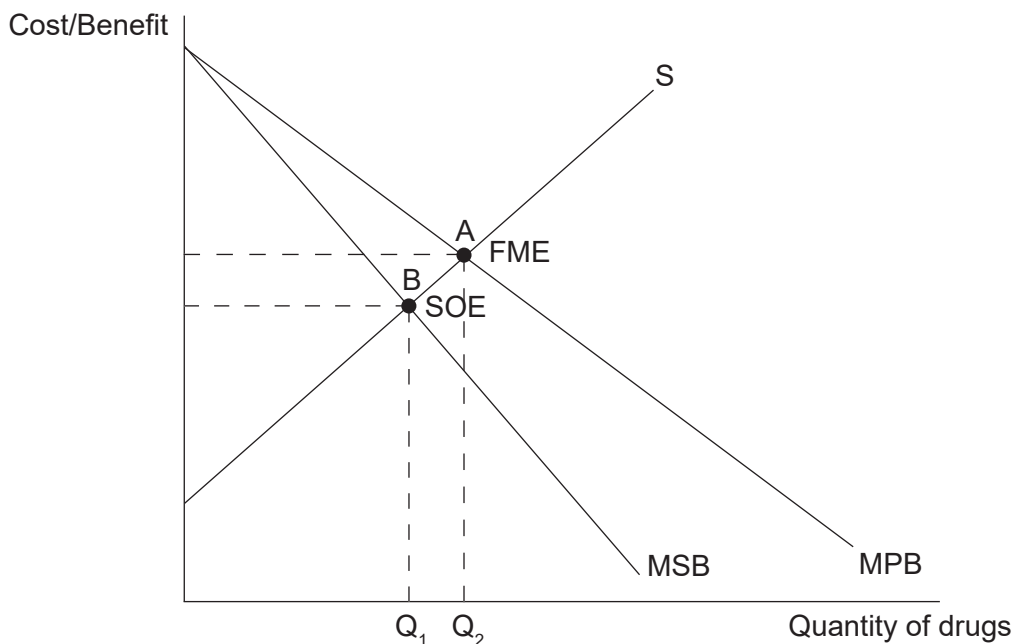
Since rational economic agents only consider their own private benefit they will not consider the externalities and therefore the free market will lead to consumption Q2 which is above the socially optimal level Q1. Hence market failure has occurred.

Alternatively demerit goods may be over consumed due to a lack of information on the part of the person consuming the good. Some people may not be fully aware of the private costs involved in consuming drugs (such as higher risk of death or illness) or may simply discount the costs since they

are likely to occur sometime in the future while the perceived benefits of consumption occur immediately.

Issues, analysis and areas for discussion include:
- Definition/explanation of market failure
- Definition/explanation of demerit good
- Discussion of negative externalities associated with consumption of drugs
- Distinction between private benefits/costs and social benefits/costs of drug use
- Discussion of future costs and benefits associated with consumption of drugs
- Distinction between MPB and MSB
- Analysis of information failure
- Appropriate diagrams
- Appropriate examples

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) Those who support the legalisation of drugs argue that:
- "Over himself, the individual is sovereign". Governments have no right to tell people what they can and can't do, if the act does not harm anyone else
- Banning drugs has not worked. In the last 10 years drug use in UK has increased and the price of drugs has come down
- Prohibition gives control of drugs to the criminals, who often use violence to control their market
- Legalising the production and supply of drugs would improve the quality and consistency of drugs and could therefore lead to fewer drug related deaths
- Enforcing drug laws is very expensive. This money would be better spent – for example, on educating about the dangers of drug use
- Legalisation and taxing drugs would raise revenue for the Government
- Legalisation could lead to a reduction in drug related crime as addicts may not be forced into crime to feed their habit
- Illegal drugs may not be any more dangerous than the legal drugs such as alcohol and cigarettes
- The relaxation of drug laws in Europe (Portugal, Spain and Germany) seems to have been successful, certainly when measured by drug related deaths

However those opposed to legalisation argue:
- Drugs harm the individuals that use them and because of their addictive nature individuals are not necessarily the best judges of their own interests therefore the government has a duty to protect people, even from themselves
- There are significant external costs associated with drug use. Therefore prohibition is necessary to reduce use and reduce these external costs
- Legalisation would send the wrong signal to potential users that drug use is acceptable
- Legalisation could lead to even lower prices which would in turn increase consumption further

Issues, analysis and areas for discussion include:
- Impact of legalisation on prices, quality and availability of drugs
- Impact of legalisation on government finances – potential for tax revenues
- Impact of legalisation on the externalities associated with drug use – both positive and negative
- Reference to addictive nature of drugs and message legalisation sends about their use
- 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; analysis 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 in relation to the impact on economic agents; analysis 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 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 A centrally planned economy is an economic system where decisions on what to produce, how to produce and for whom to produce are taken by the government in a centrally managed bureaucracy.

In 1965 a significant number of economies could be classified as centrally planned however that number has fallen to just a handful in recent years as these economies have converted to a more free market approach. Examples of centrally planned economies include, North Korea, Iran, Cuba and Belarus.

The fact that so many of former centrally planned economies have moved away from central planning toward using markets to allocate resources would suggest that the centrally planned economy did not benefit economic agents in the manner that had been hoped.

The main problems with central planning include:
- Lack of competition and profit motive led to high levels of inefficiency
- Lack of competition also led to a lack of choice for consumers
- Goods and services produced were often of poor quality
- Lack of political freedom as the government created plans towards some common goal
- Compared to free market economies economic growth was much lower and hence GDP per capita fell way below the levels experienced in free market economies
- Central planning is slow to react to changes in demand and supply conditions so surpluses and shortages were common
- Shortages in turn lead to the development of shadow markets and corruption

However central planning does have some potential benefits to economic agents:
- Low levels of inequality in income and wealth as the nation's resources were put to use for the benefit of the whole country
- Low levels of unemployment and higher levels of job security
- Stable prices – since they were determined by government
- Much more consistent provision of merit goods and lower provision of demerit goods
- Lower levels of duplication in production and resource allocation

Issues, analysis and areas for discussion include:
- Impact of central planning on consumers – prices, quality, choice
- Impact of central planning on producers – efficiency, competition levels, worker productivity
- Impact of central planning on workers – employment, wage rates, job security, job satisfaction
- Impact of central planning on government – political freedom, issues around planning for future
- Appropriate examples
- Historical context
- 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; analysis 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 in relation to the impact on economic agents; analysis 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 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]

20

8 Those who believe that government should cease to fund higher education in the UK argue that:
- In recent years numbers attending university have increased dramatically, and that it would be difficult for government to fully fund university education adequately. The £17bn spent on higher education could be better employed elsewhere
- The people who gain most from university education are the students themselves, who may gain highly paid employment. It is estimated that a typical graduate will earn over £200 000 more over their lifetime (referred to as the graduate premium) than a non-graduate, therefore they should be the ones who contribute most to its cost
- Introducing a fully functioning market in higher education should increase efficiency and improve the quality of higher education

However those who believe that the government should fund higher education argue that:
- Higher education confers positive externalities on society and therefore others should pay something towards the cost
- Introducing a free market will reduce the number of students from low-income groups attending university. This will widen further the gap between the rich and the poor
- The graduate premium is over-stated, with many graduates earning less than non-graduates
- Introducing a market in higher education could reduce the number of students who do arts degrees, or who do courses which lead to low paid jobs such as nursing and teaching
- The total cost to government of funding higher education is relatively small when compared to expenditure in other areas

Issues, analysis and areas for discussion include:
- Impact of removing funding for higher education on affordability, quality of provision, access and equality
- Impact of removing funding for higher education on market efficiency – reference to education as a merit good
- Impact on government finances
- Appropriate examples
- Historical context
- 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; analysis 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 in relation to the impact on economic agents; analysis 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 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
	20
Total	**80**