

GCE

Economics

Unit **H460/01**: Microeconomics

Advanced GCE

Mark Scheme for June 2017

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.















All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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Annotations

Annotation	Meaning
	Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
	Correct – mark awarded
	Incorrect
	Benefit of doubt
	AO1 – Knowledge and understanding
	AO2 – Apply knowledge and understanding
	AO3 - Analyse
	AO4 - Evaluation
	Not answering question
	Noted but no credit given
	Too vague
	Own figure rule
	Confused
	Unclear

Subject-specific Marking Instructions**INTRODUCTION**

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper and its rubrics
- the mark scheme.

You should ensure that you have copies of these materials.

You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet **Instructions for Examiners**. If you are examining for the first time, please read carefully **Appendix 5 Introduction to Script Marking: Notes for New Examiners**.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

Rubric Infringement

Candidates may infringe the rubric in the following way:

- answering two questions from Section C.

If a candidate has written two answers for Section C, mark both answers and award the highest mark achieved.

USING THE MARK SCHEME

Please study this Mark Scheme carefully. The Mark Scheme is an integral part of the process that begins with the setting of the question paper and ends with the awarding of grades. Question papers and Mark Schemes are developed in association with each other so that issues of differentiation and positive achievement can be addressed from the very start.

This Mark Scheme is a working document; it is not exhaustive; it does not provide 'correct' answers. The Mark Scheme can only provide 'best guesses' about how the question will work out, and it is subject to revision after we have looked at a wide range of scripts.


The Examiners' Standardisation Meeting will ensure that the Mark Scheme covers the range of candidates' responses to the questions, and that all Examiners understand and apply the Mark Scheme in the same way. The Mark Scheme will be discussed and amended at the meeting, and administrative procedures will be confirmed. Co-ordination scripts will be issued at the meeting to exemplify aspects of candidates' responses and achievements; the co-ordination scripts then become part of this Mark Scheme.


Before the Standardisation Meeting, you should read and mark in pencil a number of scripts, in order to gain an impression of the range of responses and achievement that may be expected.


In your marking, you will encounter valid responses which are not covered by the Mark Scheme: these responses must be credited. You will encounter answers which fall outside the 'target range' of Bands for the paper which you are marking. Please mark these answers according to the marking criteria.


Please read carefully all the scripts in your allocation and make every effort to look positively for achievement throughout the ability range. Always be prepared to use the full range of marks.

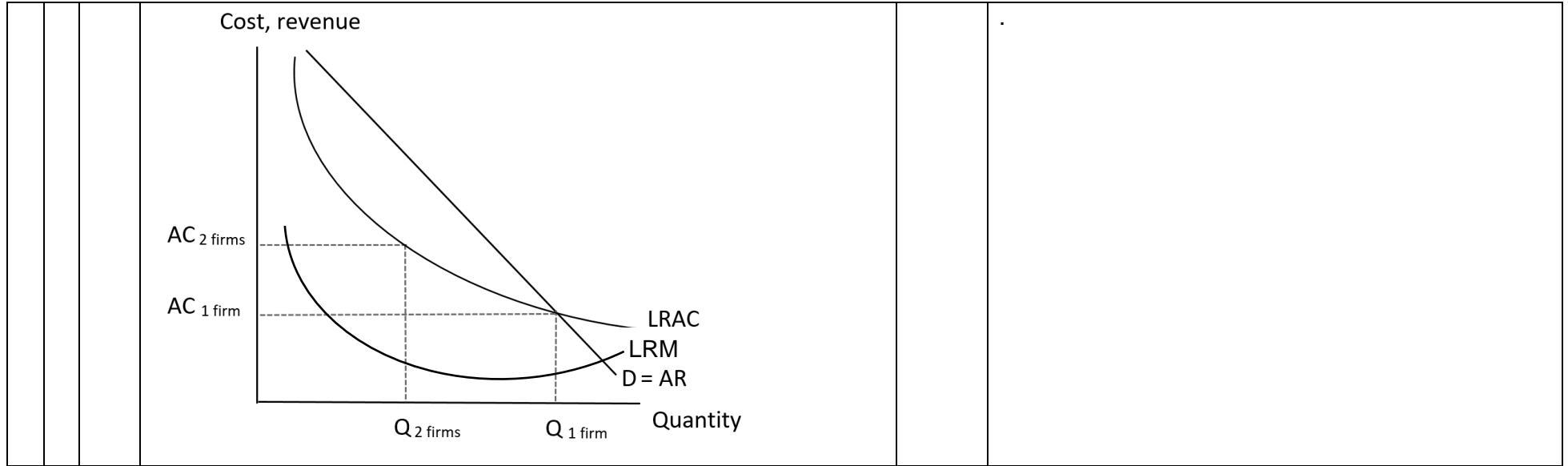
Levels of response / Level descriptors	Knowledge and understanding/ Application	Analysis	Evaluation
Strong	Precision in the use of the terms in the question and applied in a focused way to the context of the question.	An explanation of causes and consequences, fully developing the links in the chain of argument.	A conclusion is drawn weighing up both sides, and reaches a supported judgement.
Good		An explanation of causes and consequences, developing most of the links in the chain of argument.	A conclusion is drawn weighing up both sides, but without reaching a supported judgement.
Reasonable	Awareness of the meaning of the terms in the question and applied to the context of the question.	An explanation of causes and consequences, which omit some key links in the chain of argument.	Some attempt to come to a conclusion, which shows some recognition of the influencing factors.
Limited	Awareness of the meaning of the terms in the question.	Simple statement(s) of cause and consequence.	An unsupported assertion.


Question			Answer	Marks	Guidance
1	a	i	<p>What relationship does Fig.1 suggest existed between changes in real GDP and changes in rail passenger journeys between 2004 and 2015?</p> <ul style="list-style-type: none"> • A positive relationship (1). • As real GDP rises so do rail passenger journeys (1). • The % change in rail passenger journeys is generally higher than the % change in real GDP (1). 	<p>1 (A02*1)</p>	<p>Annotate with </p>

Question			Answer	Marks	Guidance
1	a	ii	<p>How would an economist explain this relationship?</p> <ul style="list-style-type: none"> • Rail travel is a normal good (1), so has a positive income elasticity of demand (1). • Rail travel is income elastic (1), which explains why the growth in rail passenger journeys is generally greater than the growth in real GDP (1). • As real GDP increases, more people likely to be in work (1), so more people travelling to and from work (1). • Higher real GDP / income makes rail journeys more affordable (1) which enables people to travel more for leisure purposes (1). • Demand for rail travel has a derived demand (1), so rising GDP indicate a rise in the demand for labour / leisure which increases the demand for rail travel leading to an increase in rail passenger journeys (1). 	<p>2 (A02*2)</p>	<p>Annotate with </p> <p>Also accept:</p> <ul style="list-style-type: none"> • Real GDP is a measure of the total value of goods and services produced (1), so an increase in rail passenger journeys will contribute to the increase in real GDP (1). • A rise in real GDP raises consumer confidence (1), which increases the amount of rail passenger journeys (1).

Question		Answer	Marks	Guidance
1	b	<p>Identify and explain, using the stimulus material, one reason why the privatisation of the rail network has made it a more contestable market.</p> <ul style="list-style-type: none"> • Rail infrastructure is owned and maintained by Network Rail (1) which removes a significant entry barrier in providing passenger rail services by TOCs (1). • Rail infrastructure is owned and maintained by Network Rail (1) which reduces sunk costs of entry (1). • TOCs bid for franchises to operate passenger rail services (1) which allows for pool of potential entrants / contest for right to supply (1). • Franchises last for a fixed time period (1) which allows a contest by potential entrants at the end of the franchise period (1). 	<p>2</p> <p>(A01*1 A02*1)</p>	<p>A contestable market has the following characteristics</p> <ul style="list-style-type: none"> • no barriers to entry/exit • low/zero sunk costs • the possibility of hit and run entry from a pool of potential entrants. <p>Max of 1 mark for any of these characteristics.</p> <p>References to the number of TOCs / change in the number of TOCs are not relevant to this question.</p> <p>Annotate with </p>

Question		Answer	Marks	Guidance
1	c	<p>Explain, using a diagram, why the high level of fixed costs in providing the infrastructure of the railway network make it an example of a natural monopoly</p> <ul style="list-style-type: none"> • A high level of fixed costs in the railway network means that the monopoly firm will have declining AC due to fixed costs being spread over a greater output (1). • Large economies of scale mean that LRAC is constantly declining (1). • A single firm can satisfy market demand at a lower AC than two or more firms, so that competition is economically inefficient. (1) • Total costs of provision of the good or service are lower with one firm supplying the market / wasteful duplication with more than one firm (1) • Economies of scale are large in comparison to market demand such that there is only 'room' for one firm in the market (1) 	<p>3</p> <p>(AO2*2 AO2*1)</p>	<p>Up to 2 marks for a diagram which shows:</p> <ul style="list-style-type: none"> • declining LRAC (1) • LRMC below LRAC (1) • lower AC of a single firm supplying market demand (1) • higher AC of more than one firm supplying market (1) • demand curve showing economies of scale are large in comparison to market demand (1) <p>No marks for a monopoly diagram</p> <p>1 mark for an explanation why the high level fixed costs in providing the infrastructure of the railway network make it an example of a natural monopoly.</p> <p>Reference to economies of scale on its own, without reference to the size of the market / demand, is insufficient.</p> <p>Annotate with </p>



Question			Answer	Marks	Guidance
1	d	i	<p>What evidence is there in the stimulus material of TOCs engaging in price discrimination?</p> <ul style="list-style-type: none"> Different prices are charged for a journey from Newcastle to London (1) at different times (1). 	<p>2</p> <p>A01*1</p> <p>A02*1</p>	Annotate with 

Question			Answer	Marks	Guidance
1	d	ii	<p>Evaluate the extent to which the consumer benefits from price discrimination by a firm with monopoly power.</p> <p>Level 2 (5–8 marks)</p> <p>Good knowledge and understanding of the concept of price discrimination and of the impact of price discrimination on the consumer in a context provided by the candidate.</p> <p>Good – Strong analysis of the ways in which price discrimination impacts upon the consumer</p> <ul style="list-style-type: none"> Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. <p>Reasonable – Strong evaluation of the impact of price discrimination on the consumer considering both sides and underpinned by appropriate theoretical analysis.</p> <ul style="list-style-type: none"> Good evaluation will weigh up both sides but without reaching a 	<p>8</p> <p>(AO1 x 1</p> <p>AO2 x 1</p> <p>AO3 x 3</p> <p>AO4 x 3)</p>	<p>Price discrimination occurs when a business, with monopoly power, charges different prices to different people for the same product, due to reasons other than cost difference. It relies on various conditions being met such as monopoly power, different elasticities in each market and an ability to prevent resale and separate the different markets.</p> <p>It can be argued that some consumers will benefit from the relatively low prices offered by the discriminating monopolist in some markets. These relatively low prices might attract consumers to the product / service who might not have consumed it. This process might overcome information failure which might be limiting use of the product by certain groups. An example could be the relatively low rail fares on off peak services which might encourage consumers to use train services. These consumers will have a greater amount of consumer surplus than the consumers using the peak time services with a relatively higher price.</p> <p>Another argument is the case of a monopoly price discriminator who does so in order to make provision of a service economically viable. In such a case any single price operation would only lead to loss making and consequently the removal of the service for all.</p>

	<p>supported judgement.</p> <ul style="list-style-type: none"> • Strong evaluation should include a supported judgement. <p>Level 1 (1–4 marks)</p> <p>Limited – Reasonable knowledge and understanding of the concept of price discrimination and of the impact of price discrimination on the consumer in a context provided by the candidate.</p> <p>Limited – Reasonable analysis of the ways in which price discrimination impacts on the consumer.</p> <ul style="list-style-type: none"> • Limited analysis will have little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. • Reasonable analysis will have correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. <p>Limited evaluation of the impact of price discrimination on the consumer in the form of an unsupported statement or no evaluation.</p> <p>0 marks no response or no response worthy of credit.</p> <p>Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.</p>	<p>Because of this, price discrimination benefits consumers as it makes available a good or service which otherwise would not be available to consume.</p> <p>On the other hand it can be argued that the monopoly supplier is simply separating the markets in order to reduce consumer surplus in all markets. In essence consumer surplus is converted into producer surplus. Compared to a competitive market all consumers may lose out due to the monopoly power.</p> <p>The extent to which the consumer benefits from price discrimination by a firm with monopoly power depends on the nature of the good or service. For example, It could be argued that the potential to increase the number of consumers able to afford passenger rail services is a more important consideration than any negative impact on consumer surplus. This is because, passenger rail services could be considered to be a service with positive externalities and would otherwise be underprovided.</p>
	<p>Descriptor</p> <p>Consistently meets the criteria for this level</p> <p>Meets the criteria but with some slight inconsistency</p> <p>Just enough achievement on balance for this level</p> <p>On the borderline of this level and the one below</p>	<p>Award mark</p> <p>At top of level</p> <p>Above middle and either below top of level or at middle of level (depending on number of marks available)</p> <p>Above bottom and either below middle or at middle of level (depending on number of marks available)</p> <p>At bottom of level</p>

Question			Answer	Marks	Guidance
1	e	*	<p>Evaluate, using evidence from the stimulus material, the case for private sector ownership of passenger rail services.</p> <p>Level 3 (9–12 marks)</p> <p>Good knowledge and understanding of private sector ownership in the context of passenger rail services, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding.</p> <p>Good – Strong analysis of the case for and against private sector ownership</p> <ul style="list-style-type: none"> • Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. • Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. <p>Good – Strong evaluation of the case for private sector ownership, weighing up both sides/comparing alternatives.</p> <ul style="list-style-type: none"> • Strong evaluation should include a supported judgment. <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (5–8 marks)</p> <p>Good knowledge and understanding of private sector ownership in the context of passenger rail services, supported by the evidence in</p>	<p>12</p> <p>(AO1 x 1 AO2 x 1 AO3 x 5 AO4 x 5)</p>	<p>For a mark at the top of each level evidence must be provided from the stimulus material and / or the candidate's own knowledge.</p> <p>Private sector ownership means that firms are owned by individuals or by shareholders rather than the state. They, therefore, pursue their own objectives (profit maximisation, revenue maximisation etc) rather than those of the state.</p> <p>The case for private ownership of rail services can be made by reference to the impact on rail fares ($P = MC$), productive efficiency (cost per passenger km), allocative efficiency (the maximisation of consumer satisfaction, dynamic efficiencies (innovation and improvements to rail services). These benefits can be analysed in terms of the profit motive, access to capital markets, and / or the impact of privatisation of passenger rail services on contestability / competition. A valid analysis of the case for private ownership, therefore, can argue that increased contestability / competition will increase economic efficiency, lower fares and improve the quality of passenger rail services.</p> <p>Evidence for these benefits might include the franchising process creating competition / contestability, greater choice through open access competition, the fact that more services are promised on the East-Coast Line by private sector operators (Virgin and Stagecoach), the 50% increase in capacity, faster journey times, £140 million investment to improve service and travel experience of passengers and the removal of franchise in cases where financial commitments not met.</p>

	<p>the stimulus material and / or the candidate's own knowledge and understanding.</p> <p>Reasonable analysis of the case for or against private sector ownership. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis of the case for or against private sector ownership</p> <p>Reasonable evaluation of the case for private sector ownership.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 1 (1–4 marks)</p> <p>Limited – Reasonable knowledge and understanding of private sector ownership in the context of passenger rail services, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding.</p> <p>Limited analysis of the case for or against private sector ownership. Little evidence of reasoning that addresses the question asked. There is a lack of a clear structure.</p> <p>Limited evaluation of the case for private sector ownership in the form of an unsupported statement or no evaluation.</p> <p><i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p>0 marks no response or no response worthy of credit.</p> <p>Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.</p>	<p>The case against private ownership of rail services centres around a number of issues. For example, private ownership has been in the form of franchised monopolies and a lack of open access competition, such that there has been a need for the regulation of some fares to prevent prices rising above marginal cost. It can also be argued that private sector ownership is likely to result in under-provision of rail services, not only on loss-making routes but also because of the positive externalities of rail use. It can also be argued that under private ownership profits are distributed to shareholders reducing the amount reinvested in the rail network and passenger services.</p> <p>Evidence to support the case against private ownership can be found in the lengthy franchises shown in Fig. 2 and the failure of some private sector companies resulting in direct provision by the state (eg Directly Owned Railways).</p> <p>Whilst there are advantages of the private ownership of passenger rail services it is difficult to support the creation of private sector monopolies from the viewpoint of economic efficiency. The growing state subsidy of rail services in the UK would tend to suggest that the case for private ownership is weak. This is supported by the fact that Directly Owned Railways (DOR), a train operator under state ownership, managed to contribute £1 billion to the government as a result of its profit.</p>
	<p>Descriptor</p> <p>Consistently meets the criteria for this level</p> <p>Meets the criteria but with some slight inconsistency</p>	<p>Award mark</p> <p>At top of level</p> <p>Above middle and either below top of level or at middle of</p>

			level (depending on number of marks available)
		Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
		On the borderline of this level and the one below	At bottom of level
Question	Answer	Marks	Guidance
2 *	<p>The world price of oil fell from over \$100 a barrel during 2014 to below \$45 a barrel in 2016.</p> <p>Evaluate, using an appropriate diagram(s), the usefulness of the free market forces of supply and demand in analysing commodity markets, such as oil.</p> <p>Level 5 (21–25 marks)</p> <p>Good – Strong knowledge and understanding of the nature of commodity markets, the operation of the free market forces of demand and supply in the context of commodity markets and how changes in demand and supply may explain price movements in commodity markets.</p> <p>Strong analysis of how changes in demand and supply may explain price movements in commodity markets will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis.</p> <p>Strong evaluation of the impact of supply and demand on oil prices considering extent and alternatives and reaching a supported judgment.</p> <p><i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i></p> <p>Level 4 (16–20 marks)</p> <p>Good knowledge and understanding of the nature of commodity</p>	<p>25</p> <p>(AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)</p>	<p>For a mark at the top of each level the response should be in context.</p> <p>Commodities tend to be traded internationally and are homogeneous in nature.</p> <p>As a result, the price of commodities is likely to be determined by the interaction of demand and supply. Excess supply of commodities will cause prices to fall whilst excess demand of commodities will cause prices to rise. The fall in the world price of oil in 2014 (from P1 to P2 in the diagram below) could have been caused by a fall in demand (from D1 to D2) and / or a rise in supply (from S1 to S2).</p> <p>On the other hand, the free market forces of demand</p>

markets, the operation of the free market forces of demand and supply in the context of commodity markets and how changes in demand and supply may explain price movements in commodity markets.

Strong analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis.

Good evaluation will weigh up both sides /comparing alternatives but without reaching a supported judgment.

There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.

Level 3 (11–15 marks)

Good knowledge and understanding of the nature of commodity markets, the operation of the free market forces of demand and supply in the context of commodity markets and how changes in demand and supply may explain price movements in commodity markets.

Good analysis of the impact of supply and demand on oil prices There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis.

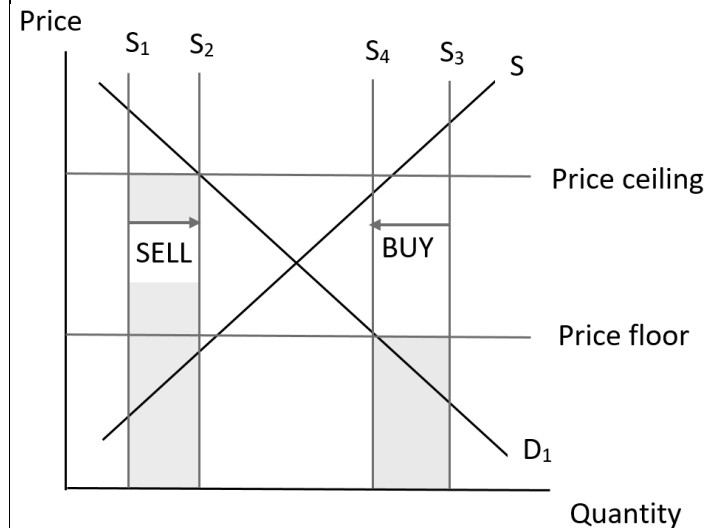
Reasonable evaluation of the impact of supply and demand on oil prices considering extent and alternatives.

There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.

Level 2 (6–10 marks)

Good knowledge and understanding of the nature of commodity markets, the operation of the free market forces of demand and supply

and supply may not be useful in analysing commodity markets where there is government intervention or where these markets are dominated by a small number of buyers or sellers. For example, governments may offer subsidies to producers to artificially raise supply and lower prices or tax commodities to artificially reduce supply and raise prices. Government intervention may include production quotas or the use of production licenses to limit supply to reduce the depletion rate of some commodities, artificially reducing supply and raising prices. The fluctuation of prices caused by the free market forces of demand and supply may be limited by buffer stock schemes to over-ride market forces. Buffer stock schemes set price ceiling and price floors, with governments buying up stocks of

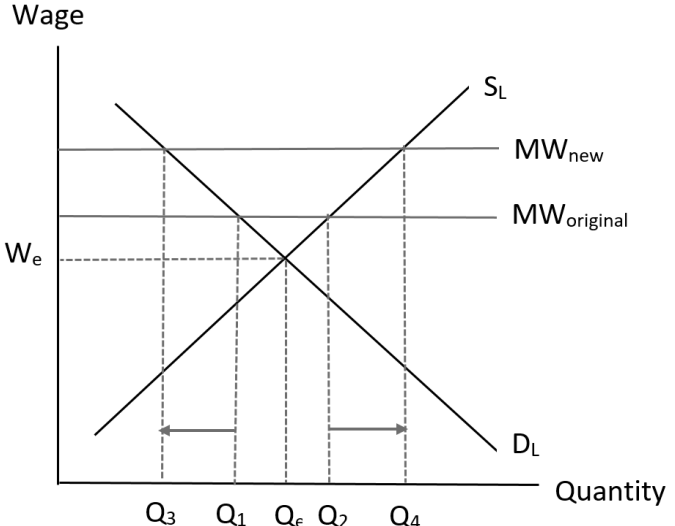


commodities to reduce supply from P_4 to P_3 when prices are in danger of falling below the floor and selling stocks of commodities to raise supply from S_1 to S_2 when prices are likely to rise above the price ceiling.

The usefulness of demand and supply in analysing

	<p>in the context of commodity markets and how changes in demand and supply may explain price movements in commodity markets.</p> <p>Reasonable analysis of the impact of supply and demand on oil prices There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis.</p> <p>Reasonable evaluation of the impact of supply and demand on oil prices considering extent and alternatives.</p> <p><i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i></p> <p>Level 1 (1–5 marks)</p> <p>Reasonable knowledge and understanding of the nature of commodities, the free market forces of demand and supply and how changes in demand and supply may explain price movements in commodity markets.</p> <p>Limited or no analysis of the impact of supply and demand on oil prices. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled.</p> <p>Limited evaluation of the impact of supply and demand theory on oil prices in the form of an unsupported statement or no evaluation.</p> <p><i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i></p> <p>0 marks no response or no response worthy of credit.</p>	<p>commodity markets may also be limited by the actions of producers who may form commodity cartels (eg OPEC) to limit supply through production quotas to raise prices. In these cases, producers may not release supplies to the market in order to artificially reduce supply and raise prices / prevent prices from falling.</p> <p>Whilst market forces can be manipulated in the short term, it is difficult to over-ride them in the long term. Commodity cartels, for example, tend to break down because if it is difficult to police agreements to restrict supply. It is also difficult to over-ride market forces where there are many small producers as each producer accounts for a small proportion of total global supply. In addition, forms of government intervention such as buffer stock schemes can be costly to implement or maintain when there is persistent over supply at S_3 because the cost of buying or removing supplies of the commodity from the market are not matched by revenue from sales of the commodity as shown by the relative sizes of the shaded areas in the previous diagram. The (financial) viability of buffer stock schemes are, therefore, at the mercy of market forces. Overall, because commodities are internationally traded and are homogeneous market forces of demand and supply tend to prevail.</p>
	<p>Descriptor</p> <p>Consistently meets the criteria for this level</p> <p>Meets the criteria but with some slight inconsistency</p>	<p>Award mark</p> <p>At top of level</p> <p>Above middle and either below top of level or at middle of level (depending on number of marks available)</p>

		Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
		On the borderline of this level and the one below	At bottom of level

Question	Answer	Marks	Guidance
<p>3 *</p>	<p>In April 2016 the U.K. National Minimum Wage for those aged 25 and over was increased by over 7% from £6.70 per hour to £7.20 per hour. It is now called the National Living Wage.</p> <p>Evaluate, using an appropriate diagram(s), the impact on an economy of an increase in the minimum wage.</p> <p>Level 5 (21–25 marks)</p> <p>Good – Strong knowledge and understanding of a National Minimum / Living Wage and the impact of an increase in the minimum wage in the context of an economy.</p> <p>Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis.</p> <p>Strong evaluation of the impact an increase in the minimum wage weighing up both sides/comparing alternatives and reaching a supported judgment.</p> <p><i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i></p> <p>Level 4 (16–20 marks)</p> <p>Good knowledge and understanding of a National Minimum / Living Wage and the impact of an increase in the minimum wage in the context of an economy.</p> <p>Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be</p>	<p>25</p> <p>(AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)</p>	<p>For a mark at the top of each level the response should be in context.</p> <p>A response which does not address “an increase in the minimum wage” should be given a mark up to the mid-point in the Level awarded.</p> <p>A minimum wage acts as a price floor in the labour market and prevents wages in that labour markets from falling to the equilibrium wage rate.</p> <p>An increase in the minimum wage from $MW_{original}$ to MW_{new} will increase the quantity of labour supplied from Q_2 to Q_4 but reduce the quantity of labour demanded from Q_1 to Q_3. There are different perspective on whether an increase in the minimum wage will create positive or negative impacts on an economy.</p>  <p>There are several positive impacts of an increase in the minimum wage on an economy. From an equity</p>

	<p>integral to the analysis.</p> <p>Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i></p> <p>Level 3 (11–15 marks)</p> <p>Good knowledge and understanding of a National Minimum / Living Wage and the impact of an increase in the minimum wage in the context of an economy.</p> <p>Good analysis of the negative and positive impacts of an increase in the minimum wage. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis.</p> <p>Reasonable evaluation of the impact an increase in the minimum wage considering both sides/comparing alternatives.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 2 (6–10 marks)</p> <p>Good knowledge and understanding of a National Minimum / Living Wage and the impact of an increase in the minimum wage in the context of an economy.</p> <p>Reasonable analysis of the negative and positive impacts of an increase in the minimum wage. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis.</p> <p>Reasonable evaluation of an increase in the minimum wage,</p>	<p>point of view it would increase protection of workers against exploitation by powerful (monopsony) employers and may lead to a more equal distribution of income by increasing wages in low skill, low paid occupations by raising the living standards of the poorest groups in society. From an efficiency point of view an increase in the minimum wage increases the gap between working and not working, reducing voluntary unemployment and it may result in an increase in productivity as workers are more motivated to work harder and firms may invest more in educating and training workers, raises the MRP of labour.</p> <p>On the other hand there may be negative effects of an increase in the minimum wage. An increase in the minimum wage may do little to increase incomes at the bottom of the income distribution as it may encourage the use of zero-hours contracts and non-standard employment, lead to a reduction in employment due to the substitution of capital for labour or firms moving their activities to low wage economies and may have little impact on inequality if other workers bargain to maintain wage differentials. There may be little impact on poverty as an increase in the minimum wage only increases incomes for those in work.</p>
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considering both sides/comparing alternatives.
The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.

Level 1 (1–5 marks)

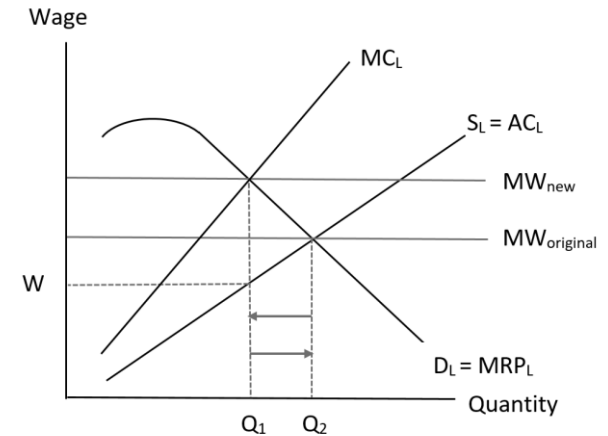
Reasonable knowledge and understanding of a National Minimum / Living Wage and the impact of an increase in the minimum wage in the context of an economy.

Limited or no analysis of the negative and positive impacts of an increase in the minimum wage. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled.

Limited evaluation of an increase in the minimum wage in the form of an unsupported statement or **no** evaluation.

Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.

0 marks no response or no response worthy of credit.



The argument that minimum wages reduce employment very much depends on the nature of the particular labour market affected by a minimum wage. Where there is a monopsony employer, the marginal cost of labour will exceed the average cost. Such employers reduce both wages (to W_{min} the diagram) employment (from Q_1 to Q_2). A minimum wage of $MW_{original}$ could both increase wages and increase employment. However, an increase in this minimum wage to MW_{new} would actually reduce employment back to Q_1 whilst increasing wages.

The impact on an economy of an increase in the minimum wage will can have significant impact on some labour markets but will have no impact in labour markets where the equilibrium wage is greater than the minimum wage e.g. high skill occupations. Much depends on the size of the increase, in particular in relation to inflation and changes in productivity. Whilst economic theory predicts that there would be an increase in unemployment, this would not be the case if the increase was introduced at a time of economic growth as the demand for labour would be increasing. Impacts on international competitiveness

				depend on the level of the minimum wage compared to other countries, especially major international competitors.
			Descriptor	Award mark
			Consistently meets the criteria for this level	At top of level
			Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
			Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
			On the borderline of this level and the one below	At bottom of level

Question	Answer	Marks	Guidance
4 *	<p>Perfect competition theory is based on a set of very unrealistic assumptions</p> <p>Evaluate the usefulness of perfect competition theory in explaining the behaviour of firms in the real world.</p> <p>Level 5 (21–25 marks)</p> <p>Good – Strong knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries.</p> <p>Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis.</p> <p>Strong evaluation of the usefulness of perfect competition theory in explaining business behaviour weighing up both sides/comparing alternatives and reaching a supported judgment.</p> <p><i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i></p> <p>Level 4 (16–20 marks)</p> <p>Good knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries.</p> <p>Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis.</p> <p>Good evaluation will weigh up both sides/comparing alternatives but</p>	<p>25</p> <p>(AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)</p>	<p>For a mark at the top of each level the response should be in context.</p> <p>The model of perfect competition assumes that firms aim to maximise profits, there are many buyers and many sellers, the product is homogeneous, there are no barriers to entry or exit and that there is perfect knowledge on the part of both consumers and producers.</p> <p>The theory of perfect competition is useful in explaining the behaviour of firms in the real world, particularly in those markets such as agriculture, commodities and foreign currency markets which approximate to the perfect competition model. Where markets do not approximate to the perfectly competitive model the theory still has uses in explaining the behaviour of firms. This is because the model predicts that firm behaviour in markets which are not perfectly competitive will reduce economic efficiency (productive and allocative). Therefore there are important implications for competition policy and the regulation of such markets by reducing entry barriers, investigating of mergers and monopoly and legislation to prevent / punish collusion and combat anti-competitive behaviour (predatory pricing, vertical restraints etc) and the provision of information for consumers and producers. These points can be illustrated with real world examples.</p> <p>On the other hand, there are limitations of the theory of perfect competition in explaining the behaviour of firms in the real world mainly resulting from unrealism of the assumptions made in the theory. Conclusions about impact of competition on prices, productive and allocative efficiency may be invalid if</p>

	<p>without reaching a supported judgment.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i></p> <p>Level 3 (11–15 marks)</p> <p>Good knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries.</p> <p>Good analysis of the usefulness of perfect competition theory in explaining business behaviour. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis.</p> <p>Reasonable evaluation of the usefulness of perfect competition theory in explaining business behavior.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 2 (6–10 marks)</p> <p>Good knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries.</p> <p>Reasonable analysis of usefulness of perfect competition theory in explaining business behaviour. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis.</p> <p>Reasonable evaluation of the usefulness of perfect competition theory in explaining business behaviour considering both sides/comparing alternatives.</p> <p><i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence,</i></p>	<p>one or more of the conditions of perfect competition are not met. For example, firms do not always profit maximise, products are differentiated, markets might be dominated by one or a few sellers, collusion amongst sellers may occur. Illustrations of the above using real world examples. There is also the issue of whether competition is necessary for the behaviour of firms to bring about efficiency gains. Actual competition (number of firms) may not be as important as potential competition (contestability)</p> <p>No one theory is able to explain the business behaviour in the real world. Perfect competition theory is, therefore, one of many theories explaining likely behaviour in a range of market structures. The usefulness of economic theories should be judged on the accuracy of their predictions rather than the realism of their assumptions</p>
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	<p><i>the relationship to the evidence may not be clear.</i></p> <p>Level 1 (1–5 marks)</p> <p>Reasonable knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries.</p> <p>Limited or no analysis of the usefulness of perfect competition theory in explaining business behaviour. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled.</p> <p>Limited evaluation of the usefulness of perfect competition theory in explaining business behaviour in the form of an unsupported statement or no evaluation.</p> <p><i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i></p> <p>0 marks no response or no response worthy of credit.</p> <p>Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.</p>	
	Descriptor	Award mark
	Consistently meets the criteria for this level	At top of level
	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
	On the borderline of this level and the one below	At bottom of level

Question	Answer	Marks	Guidance
5 *	<p>Profit maximisation is an unrealistic objective and does not explain the behaviour of firms in the real world.</p> <p>Evaluate the extent to which profit maximization is the most important objective influencing the activities of a firm in the real world.</p> <p>Level 5 (21–25 marks)</p> <p>Good – Strong knowledge and understanding of profit maximisation and of the activities of firms in the context of specific markets and industries.</p> <p>Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis.</p> <p>Strong evaluation of the extent to which profit maximization is the most important factor influencing choice of objectives, weighing up both sides/comparing alternatives and reaching a supported judgment.</p> <p><i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i></p> <p>Level 4 (16–20 marks)</p> <p>Good knowledge and understanding of profit maximisation and of the behaviour of firms using real world examples.</p> <p>Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis.</p>	<p>25</p> <p>(AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)</p>	<p>For a mark at the top of each level the response should be in context.</p> <p>Profits are maximised at the level of output where $MR = MC$. This can be illustrated and explained with the use of diagram(s) and compared to other business objectives.</p> <p>Profit maximisation is an important objective because of the ability to fund investment, allowing a firm to be dynamically efficient, reward shareholders in terms of higher dividend payments, reward and incentivise workers with higher wages and / or fringe benefits, reward and incentivise managers through profit-sharing schemes, resist takeovers and achieve growth through mergers / takeovers which increases horizontal and vertical integration.</p> <p>There are, however, limitations of profit maximisation as an objective. Arguably the main limitation is that it is difficult to identify the marginal cost and marginal revenue, especially for multi-product firms because of the lack of information about cost structures. The divorce of ownership from control and the principal-agent problem means that large firms in particular may pursue other objectives such as revenue maximisation, sales maximisation, satisficing behaviour and corporate social responsibility.</p> <p>Whether profit maximisation is an important objective influencing the activities of firms in the real world depends on the type of business organisation. It is much more likely for public limited companies than other types of business organisation. For example, profit maximisation is less likely to be an important objective for public sector organisations and charities. For organisations in the public sector</p>

	<p>Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i></p> <p>Level 3 (11–15 marks)</p> <p>Good knowledge and understanding of profit maximisation and of the activities of firms in the context of specific markets and industries.</p> <p>Good analysis of the factors influencing the choice of objectives. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis.</p> <p>Reasonable evaluation of the extent to which profit maximization is the most important factor influencing choice of objectives, considering both sides/comparing alternatives.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p>Level 2 (6–10 marks)</p> <p>Good knowledge and understanding of profit maximisation and of the activities of firms in the context of specific markets and industries.</p> <p>Reasonable analysis of the factors influencing the choice of objectives. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis.</p> <p>Reasonable evaluation of the extent to which profit maximization is the most important factor influencing choice of objectives, considering both sides/comparing alternatives.</p> <p><i>The information has some relevance, but is communicated in an</i></p>	<p>providing employment, cross subsidisation, universal service, provision of merit goods or goods / services with positive externalities may be more important. Overall it is difficult to establish what is the most important objective for a firm as this may change over time – profit may be sacrificed in the short term, for example, yet maximised in the long term. Business behaviour is complex and dynamic, so no one objective is likely to be realistic at any one point in time.</p>
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	<p><i>unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i></p> <p>Level 1 (1–5 marks)</p> <p>Reasonable knowledge and understanding of profit maximisation and of the activities of firms in the context of specific markets and industries.</p> <p>Limited or no analysis of the factors influencing the choice of objectives. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled.</p> <p>Limited evaluation of the extent to which profit maximization is the most important factor influencing choice of objectives in the form of an unsupported statement or no evaluation.</p> <p><i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i></p> <p>0 marks no response or no response worthy of credit.</p> <p>Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.</p>		
	<p>Descriptor</p> <p>Consistently meets the criteria for this level</p> <p>Meets the criteria but with some slight inconsistency</p> <p>Just enough achievement on balance for this level</p> <p>On the borderline of this level and the one below</p>	<p>Award mark</p> <p>At top of level</p> <p>Above middle and either below top of level or at middle of level (depending on number of marks available)</p> <p>Above bottom and either below middle or at middle of level (depending on number of marks available)</p> <p>At bottom of level</p>	

Assessment Objectives Grid

Question	AO1	AO2	AO3	AO4	TOTAL	(Quantitative Skills)
1(a)(i)		1(1)			1	(1)
1(a)(ii)		2(2)			2	(2)
1(b)	1	1			2	
1(c)	2(2)	1 (1)			3	(3)
1(d)(i)	1	1			2	
1(d)(ii)	1	1	3	3	8	
1(e)	1	1	5	5	12	
2/3	6 (2)	6 (2)	6 (2)	7 (2)	25	(8)
4/5	6	6	6	7	25	
TOTAL	18 (6)	20 (6)	20 (2)	22 (2)	80	(14)

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