

GCE

Economics

H460/01: Microeconomics

Advanced GCE

Mark Scheme for November 2020

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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.

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Annotations

Annotation	Meaning
	Blank Page – this annotation must be used on all blank pages within an answer booklet 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 B or C.

If a candidate has written two answers for Section B or 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.

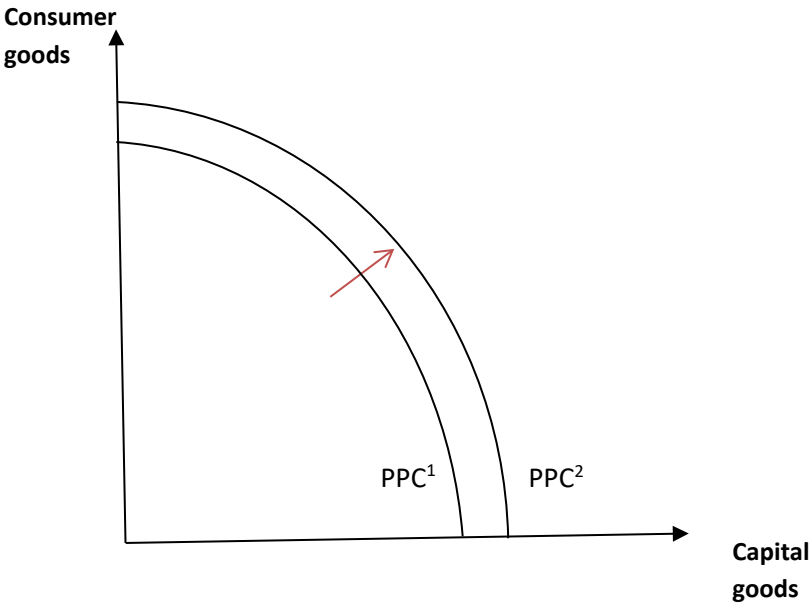
The Examiners' Standardisation Meeting will ensure that the Mark Scheme covers the range of candidates' responses to the questions, and that all Examiners understand and apply the Mark Scheme in the same way. The Mark Scheme will be discussed and amended at the meeting, and administrative procedures 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.

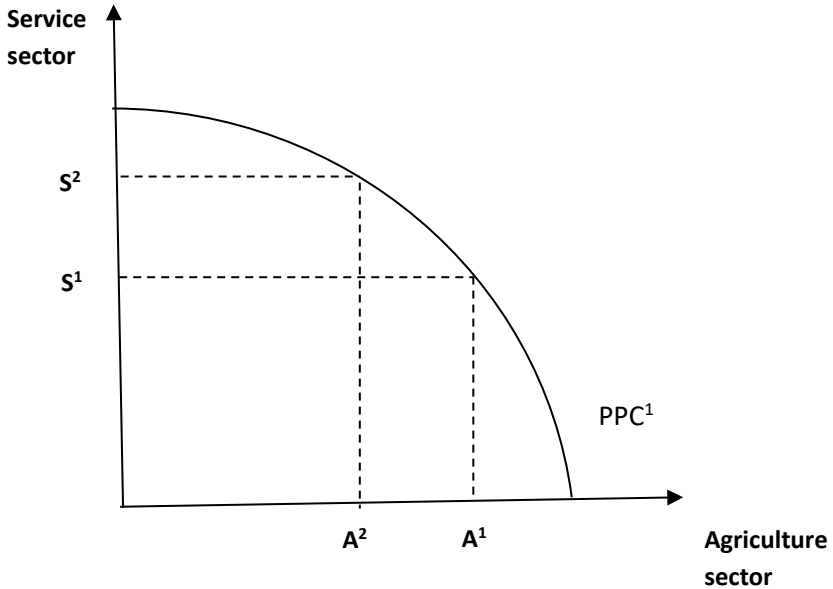
Before the Standardisation Meeting, you should read and mark in pencil a number of scripts, in order to gain an impression of the range of responses and achievement that may be expected.

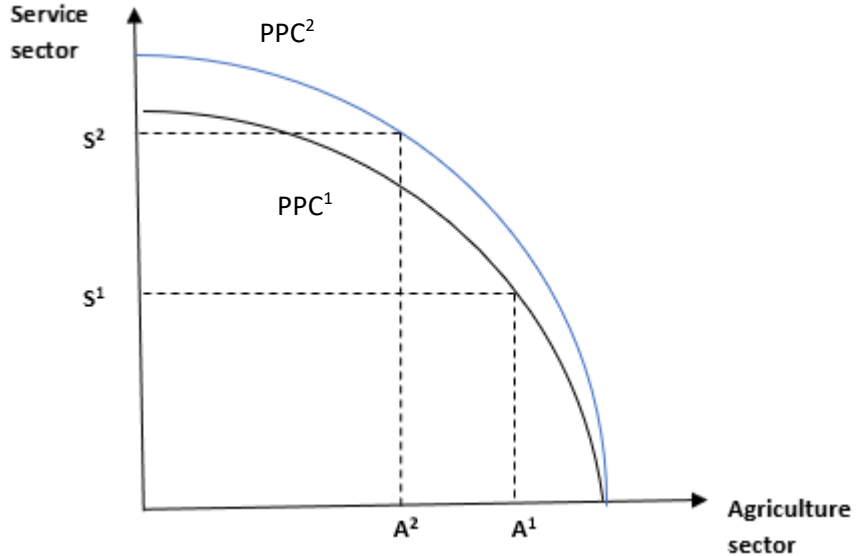
In your marking, you will encounter valid responses which are not covered by the Mark Scheme: these responses must be credited. You will encounter answers which fall outside the 'target range' of Bands for the paper which you are marking. Please mark these answers according to the marking criteria.

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	Draw a PPC diagram to explain the following statements: (i) with dependable electricity, GDP growth across sub-Saharan Africa could be up to 2% higher per annum than current rates (lines 8-9); 	2 (AO1*1 AO2*1)	Annotate with ✓ Up to 2 marks for a diagram which shows: • an accurate and fully labelled PPC diagram (1) • an outward shift of the PPC (1)

Question	Answer	Marks	Guidance
ii	Draw a PPC diagram to explain the following statements: (ii) Uganda has seen a fall in the agriculture sector's contribution to GDP at the same time as growth in the service sector's contribution (lines 16-18). 	2 (AO1*1 AO2*1)	Annotate with ✓ Up to 2 marks for a diagram which shows: - a PPC diagram which shows a movement along the PPC (or pivot/movement in favour of the service sector) (1) - labelling of higher output of agricultural sector <u>and</u> lower output of service sector (1) NB: The data from lines 16-18 may be used to show application for the second mark <i>To prevent candidates being penalised twice, marks can be awarded where the PPC is not fully labelled?</i>

Question			Answer	Marks	Guidance
			<u>Alternative answer</u> 		

Question		Answer	Marks	Guidance
1	b	Explain what is meant by a 'barter economy'. An economy where goods/services are exchanged (1) without the use of money (1)	2 (A01*2)	Annotate with  2 marks for a correct answer 1 mark for a partially correct answer or for recognising an element of bartering, e.g.: • reference to exchange / trade of goods / services • reference to cashless economy • reference to goods / services exchanged for other goods/services • requires the 'double coincidence of wants'
Question		Answer	Marks	Guidance
1	c	Calculate the five-firm concentration ratio in the UK energy supplier market. The five largest firms have a market share of 20%, 14%, 13%, 11% & 10% (1) Five-firm concentration ratio = 68% (1)	2 (A02*2)	Annotate with  Award 2 marks for an answer of 68% (with or without working) Award 1 mark for: • the five largest firms being identified (including by name) or • understanding of the five-firm concentration ratio, e.g. the market share of the five largest firms • answer of 68 (without %) • answer of 0.68

			Answer	Marks	Guidance
1	d	i	Refer to line 11-13. Calculate the income elasticity of demand for the service sector in Uganda over the last two years. Percentage change in income (line 11) = 26% Percentage change in demand (line 13) = 15% YED = $15/26$ (1) YED = 0.58 (1)	2 (A02*2)	Annotate with  2 marks for a correct answer (with or without working) [Accept 0.577 or 0.6] 1 mark for clear evidence of using correct numbers (15 & 26) in the correct formula 1 mark for a 'correct' numerical answer of the wrong magnitude or with units

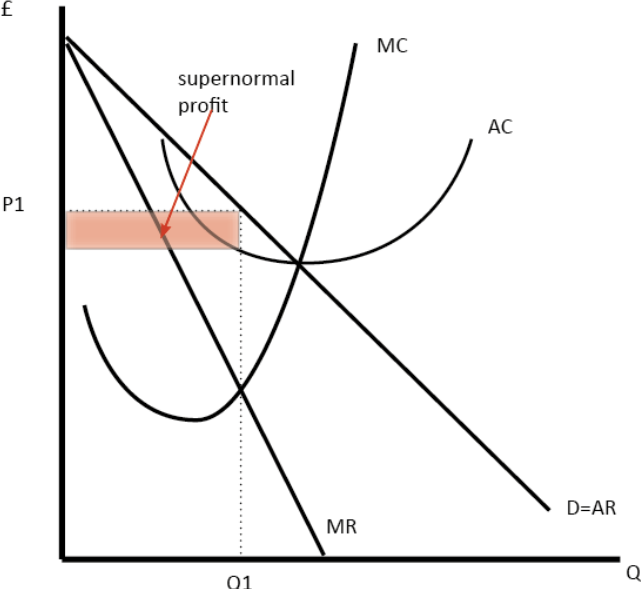
Question			Answer	Marks	Guidance
1	d	ii	Evaluate the impact of the increase in reliable energy supplies on the service sector in Uganda. Level 2 (5–8 marks) Good knowledge and understanding of the possible changes in the Ugandan markets in a context provided by the candidate. Good – Strong analysis of the ways in which markets are inter-related. • 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. Reasonable – Strong evaluation of the interaction between markets in the Ugandan economy considering both sides and underpinned by appropriate theoretical analysis. • Good evaluation will weigh up both sides but without reaching a supported judgement. • Strong evaluation should include a supported judgement.	8 (AO1 x 1 AO2 x 1 AO3 x 3 AO4 x 3)	For a mark at the top of each level evidence must be provided from the stimulus material and / or the candidate's own knowledge. An increase in energy supply due to the growth in solar power, <i>ceteris paribus</i>, leads to a fall in price. This may lead to an increase in supply in the service sector (as the growth in mobile phones, Internet and social media, currently underway in Uganda, rely on energy). However, there is also evidence that the improved supply of power, especially light, helps to improve the earning ability of Ugandans (there is plenty of reference to lives being transformed, Ritah being able to support her grandchildren and potential GDP growth of 2%). This would lead to an increase in demand. Answers are likely to consider the overall impact on the service sector. As both supply and demand are likely to shift to the right then quantity will increase. However, the impact on price will depend on the relative size of the shifts in demand and supply (and the PED/PES). Better answers may consider the impact of the income inelastic demand for services (OFR) on the size of the shift in the demand schedule. Consideration may also be given to the larger long-run impact on both supply and demand of the increased access to education made possible by the availability of cheap solar power.

		Level 1 (1–4 marks) Limited – Reasonable knowledge and understanding of the possible changes in the Ugandan markets in a context provided by the candidate. Limited – Reasonable analysis of the ways in which markets are inter-related. • 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. Limited evaluation of the impact of interaction between markets in the form of an unsupported statement or no evaluation. 0 marks no response or no response worthy of credit. Note: although any diagram(s) is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.		
		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
1 e *	The concept of rationality helps economists to understand the behaviour of economic agents. Evaluate, using evidence from the stimulus material, how rationality may help is to understand the behaviour of firms. Level 3 (9–12 marks) Good knowledge and understanding of the role of rationality and/or different economic agents, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding. Good – Strong analysis of how rationality may help to explain the behavior of different economic agents. • 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. Good – Strong evaluation of the role of rationality and whether it helps to explain the behaviour of economic agents, weighing up points of view/comparing alternatives. • Strong evaluation should include a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i>	12 (AO1 x 1 AO2 x 1 AO3 x 5 AO4 x 5)	For a mark at the top of each level evidence must be provided from the stimulus material. Most economic theory assumes that economic agents behave rationally. They will balance the marginal benefit against the marginal cost when each decision is made. For example, firms seek to profit maximise. Evidence in the stimulus material may be used to argue for or against rationality being of use include: • Samuel Mukisa is spending his own money to help his students to study. How does he benefit from this cost? • Large multinational organisations, such as Shell and Engie, may be more likely to operate rationally and make decisions based on profit-maximising behaviour. • Local start-ups and smaller firms, such as BBOX, are less likely to be profit-maximising in the short-run, but see the long-term potential of any decision made now to invest in this industry. • Fenix is clearly growing and so may be operating rationally. On the other hand, the Chief Executive is quoted as saying that she wants to have a positive impact. In fact, she suggests that it is possible to be both successful commercially and have a positive impact. Is this suggesting a satisficing approach to objectives? Candidates may consider the role of different non-maximising objectives in their answer. Better answers may consider the assumption of rational behaviour. Does a firm always aim to maximise profits (e.g. this may be unlikely for the Ugandan start-up firms, charitable concerns and

		Level 2 (5–8 marks) Good knowledge and understanding of the role of rationality and/or different economic agents, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding. Reasonable analysis of how rationality may help to explain the behaviour of economic agent(s). 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 Reasonable evaluation of the role of rationality in understanding the behaviour of economic agents. <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> Level 1 (1–4 marks) Limited – Reasonable knowledge and understanding of the role of rationality and/or economic agents, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding. Limited analysis of how rationality may help to explain the behaviour of economic agents. Little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. Limited evaluation of the role of rationality in understanding the behaviour of economic agents in the form of an unsupported statement or no evaluation. <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> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.		'socially minded investors')? Do consumers take decisions that are always in their best interests?
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			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
2 *	In recent years, most towns and cities have seen a rapid growth in the number of coffee shops and sandwich bars, the majority of which are small and locally-owned. Evaluate, using an appropriate diagram(s), whether such small firms, operating in a monopolistically competitive market, can be economically efficient. Level 5 (21–25 marks) Good – Strong knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail firms. Strong analysis of how a monopolistically competitive market may be economically efficient. It 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. Strong evaluation of whether a monopolistically competitive firm will be economically efficient considering extent and how this may be affected and reaching a supported judgment. <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>	25 (AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)	For a mark at the top of each level the response should be in context. Monopolistic competition is a market structure which combines elements of monopoly and competitive markets. A monopolistic competitive market is one with freedom of entry and exit, but firms can differentiate their products. Therefore, they have the ability to set their own prices.  However, because there is freedom of entry, supernormal profits will encourage more firms to enter the market leading to normal profits in the long term.

Level 4 (16–20 marks)

Good knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail firms.

Strong analysis of how a monopolistically competitive market may be economically efficient. It 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.

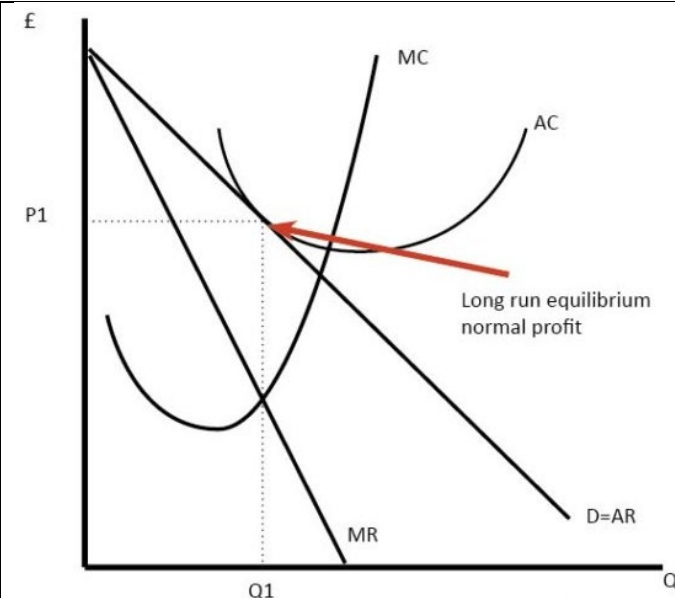
Level 3 (11–15 marks)

Good knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail firms.

Good analysis of how a monopolistically competitive market may be economically efficient. 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 link between monopolistic competition and efficiency without 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.



But is this economically efficient?

Allocative efficiency - this requires $P=MC$. As can be seen in the diagram this is not the case in either the short-run or long-run.

Productive efficiency – this occurs where AC is at a minimum. Firms in a monopolistically competitive market will operate to the left of the minimum point on the AC schedule.

Dynamic efficiency – the fact that firms will, at least, be making normal profit means that they will have some finance available to invest in new products and improvements to customer service (although not to the levels seen in many oligopolistic or highly monopolistic markets.)

X-efficiency – unlike monopoly, firms will face competition which will encourage them to cut costs and improve the quality of their output.

	Level 2 (6–10 marks) Good knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail firms. Reasonable analysis of how a monopolistically competitive market may be economically efficient. 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. Reasonable evaluation of the link between monopolistic competition and efficiency without considering extent and alternatives. <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> Level 1 (1–5 marks) Reasonable knowledge and understanding of a monopolistically competitive market or efficiency. Limited or no analysis of how a monopolistically competitive market may be economically efficient. It 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 the impact of competition on efficiency in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit.	On balance, it may be argued that this sort of market is not economically efficient. The level of product differentiation is damaging society's total welfare by allowing firms to keep their downward sloping demand curves. However, what about the choice this provides for consumers? Given the preponderance of large (multi-national) firms in the market, such as Starbucks, Coca-Cola (Costa) and Subway, the smaller/local firms must be providing something which customers want (which is presumably not price). If the market was a monopoly or perfectly competitive, it would not be providing this level of choice. In the latter case, no firm would have enough funds for research & development and in the former, why would the monopoly bother? Accept suggestions that the coffee/sandwich shop market is actually closer to perfect competition (or a contestable market), given its limited entry/exit barriers, low sunk costs, limited supernormal profits and lack of brand loyalty for what is, in principle, an homogenous product (coffee, sandwich, cake etc.) Therefore, firms in this market (especially those not owned by large corporations) may be operating potentially closer to allocative and productive efficiency than the standard monopolistic market model would suggest. Ultimately, there is a trade off in a monopolistically competitive market between static inefficiencies and possible dynamic efficiencies. Firms have an incentive to innovate (e.g. flavours of drinks, types of sandwich) in the face of powerful multinational brands. It is a question of whether the benefits to society from this innovation and degree of choice/convenience are worth the cost of the supernormal profits in the short-run and lack of allocative and productive efficiency.
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			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
3	The percentage of employees in the UK choosing to be a member of a trade union, has fallen from 27% to 20% in the last 20 years. Across different industries, this figure ranges from 48% in the education sector to 3% in the food service sector. Evaluate, using an appropriate diagram(s), whether trade union activity helps to encourage the efficient operation of the UK labour market. Level 5 (21–25 marks) Good – Strong knowledge and understanding of how trade union activity helps to encourage the efficient operation of the UK labour market. Strong analysis of how trade union activity helps to encourage the efficient operation of the UK labour market. It 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. Strong evaluation of whether trade unions help to improve efficiency in the UK labour market, weighing up both sides/comparing alternatives and reaching a supported judgment. <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>	25 (AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)	For a mark at the top of each level the response should be in context. Trade unions are organisations of workers which seek to: • Protect & improve real living standards by campaigning for real wage increases • Protect workers against unfair dismissal and other employment rights • Promote better health & safety conditions • Protect pension rights of members • Counter-balance any possible monopsony power of employers. In theory, trade unions might encourage the efficient operation of the UK labour market by exercising their collective bargaining power to partially offset the monopsony power of an employer in a particular occupation and in doing so achieve a mark-up on wages compared to those on offer to non-union members. For this to happen, a union must have some control over the total labour supply available to an industry. In the past this was possible if a union operated a closed shop agreement with an employer. However, trade union reforms in the 1980s brought an end to the closed shop in a bid to increase the flexibility of the labour market. Closed shops still exist in a few occupations, for example the actor's union, but for the vast majority of workers this is no longer a relevant issue. In the diagram below, a monopsonist with a large number of employees in the industry will force wages down to OE and restrict employment to OA. The arrival of union activity will see the labour supply curve kinked. This produces a discontinuity in the marginal cost curve.

Level 4 (16–20 marks)

Good knowledge and understanding of how trade union activity helps to encourage the efficient operation of the UK labour market.

Strong analysis of how trade union activity helps to encourage the efficient operation of the UK labour market. It 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 of whether trade unions help to improve efficiency in the UK labour market, weighing 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.

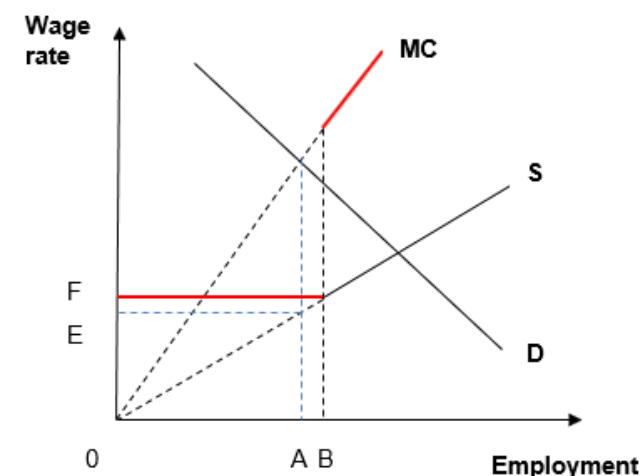
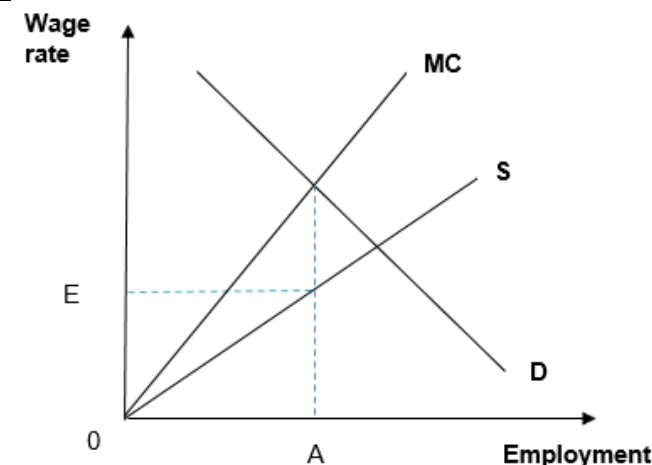
Level 3 (11–15 marks)

Good knowledge and understanding of how trade union activity helps to encourage the efficient operation of the UK labour market.

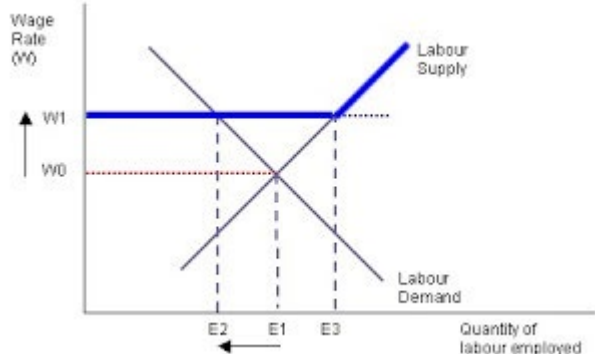
Good analysis of how trade union activity helps to encourage the efficient operation of the UK labour market. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis.

Reasonable evaluation of whether trade unions help to improve the efficiency of a labour market considering both sides/comparing 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.

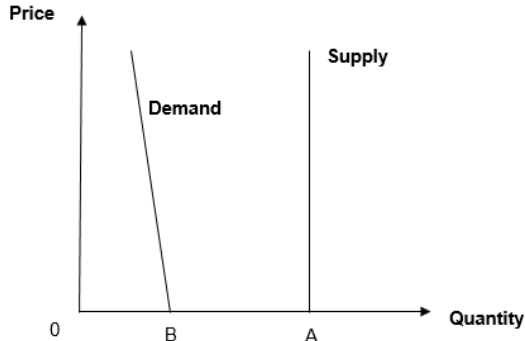


The monopsonist has an incentive to employ extra workers as long as MRP (D) is greater than MC. It will therefore employ OB workers at a wage rate OF. In this situation of bilateral monopoly, theory suggests that union activity will lead to an increase in both wages and employment levels.

	Level 2 (6–10 marks) Good knowledge and understanding of how trade union activity helps to encourage the efficient operation of the UK labour market. Reasonable analysis of how trade union activity helps to encourage the efficient operation of the UK labour market. 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. Reasonable evaluation of whether trade unions help to improve the efficiency of a labour market considering both sides/comparing alternatives. <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> Level 1 (1–5 marks) Reasonable knowledge and understanding of how trade union activity helps to encourage the efficient operation of the UK labour market. Limited or no analysis of how trade union activity helps to encourage the efficient operation of the UK labour market. 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 whether trade unions help to improve the efficiency of a labour in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit.	Trade unions might not encourage the efficient operation of the UK labour market, however. In a competitive market, such as the food service sector, union activity may force up the real wage rate and reduce employment levels.  The union-negotiated wage rate increase to W1 forces a 'kink' in the supply curve of labour which, ceteris paribus, leads to a fall in employment from E1 to E2. Unemployment of E3-E2 will be created. However, the incentives created by a combination of increased remuneration and performance related deals could impact positively on productivity. This could consequently shift the MRP outward, as a result of higher MPP, sufficiently to prevent job losses. Even to the point where equilibrium is restored at W1 E3. It is often the case that employers will insist on some form of performance-related element to any pay settlements, for example an agreement on measures designed to boost productivity, however. The balance of power between employers and trade union in wage negotiations depends on a range of factors: • The rate of unemployment - when labour is scarce, either locally or nationally, and there are
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					perceived shortages of skilled workers, then the balance of power tilts towards unions. - Competitive pressures in product markets - when a firm is enjoying a dominant monopoly position and high levels of supernormal profit, the unions will know that the employer has the financial resources to meet a more generous wage settlement. When demand for a product is price inelastic, so the demand for labour will tend to be relatively inelastic, this gives the union the opportunity to boost the total earnings of its members through collective bargaining. The reverse is true in markets where demand for the final output is highly price elastic. - Profit margins - if profit margins are being squeezed, the employer is far less likely to give in to large pay claims. - Unions are less powerful when the demand for labour is falling. When unemployment is rising, growing fears for job security also affect pay demands.
			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 *	The total police budget in the UK for 2018/19 was £12.3bn, most of which was funded from taxation. This is an amount of money equivalent to £186 per person. Evaluate the effectiveness of state provision of public goods. Level 5 (21–25 marks) Good – Strong knowledge and understanding of the state providing public goods. 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. Strong evaluation of the effectiveness of the state providing public goods, weighing up both sides/comparing alternatives and reaching a supported judgment. <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>	25 (AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)	For a mark at the top of each level the response should be in context. Public goods have two characteristics: • Non-rivalry (or non-diminishable) - consumption of the good by one person does not reduce the quality of the good available to others, e.g. Television • Non-excludable - it is impossible to stop others from benefitting from the product, e.g. Street lighting A public good can also be said to be 'non-rejectable' - no person can reject using the good, e.g. a country's nuclear defence weapons. With a true public good, such as street lighting, it is difficult to get people to agree to pay for it, as they will try to argue that they will not benefit from the street light and so not pay. This leads to an issue known as 'the free rider problem'. This means that someone can benefit from consumption of a product but not pay for it. Therefore, public goods are provided by the government paid out of taxation collected from all individuals and businesses. This is one of the main reasons for providing public goods as direct provision of a public good by the government can help to overcome the free-rider problem which leads to market failure. If the police force or defence were left to the private sector, many individuals would be unwilling to pay as they believe they get no utility from the service (or pretend they do not). The result would be that nobody would pay for the police and so the market would not provide it.

	Level 4 (16–20 marks) Good knowledge and understanding of the state providing public goods. 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. <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> Level 3 (11–15 marks) Good knowledge and understanding of the state providing public goods. Good analysis of the advantages/disadvantages of the state providing public goods. 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 advantages or disadvantages of the state providing public goods. <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>	 The socially optimal level is OA. However, the maximum amount demanded, even at a zero price, is only OB. Other arguments in favour of the state providing public goods: • The non-rival nature of consumption provides a strong case for the government rather than the market to provide and pay for public goods. • Many public goods are provided more or less free at the point of use and then paid for out of general taxation or another general form of charge such as a licence fee. • State provision may help to prevent the under-provision and under-consumption of public goods so that social welfare is improved, particularly amongst the less well-off members of society. • If the government provides public goods, they may be able to do so more efficiently because of economies of scale. The general protection that the police services provide in deterring crime and investigating criminal acts serves as a public good. But resources used up in providing policing means that fewer resources are available elsewhere. This is one of the
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		Level 2 (6–10 marks) Good knowledge and understanding of the state providing public goods. Reasonable analysis of the advantages/disadvantages of the state providing public goods. 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. Reasonable evaluation of the advantages or disadvantages of the state providing public goods. <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> Level 1 (1–5 marks) Reasonable knowledge and understanding of the state providing public goods. Limited or no analysis of the advantages/disadvantages of the state providing public goods. 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 the advantages or disadvantages of the state providing public goods in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.	disadvantages levelled at state provision of public goods. The £12.3bn police budget needs to be raised from taxation which leads to higher prices (VAT & other taxes on consumption), lower disposable income (higher income tax/NI) and lower business retained profits (higher Corporation tax) leading to less investment and economic growth. Evaluative answers may consider that the per person figure of £186 is actually insignificant for most people and is a 'fair' price to pay for the service provided 24 hours a day, 365 days a year. Other criticisms of state provision of public goods: • can lead to rationing. As costs have increased and taxes reduced, services such as the police have reached 'breaking point'. A non-urgent call may not be attended at all or you will have to wait for many hours. • may lead to government failure. Can a non-profit organisation provide an efficient service? To what extent can leaders of public sector organisations such as the police make decisions about provision when there is no price mechanism to aid decision-making? The existence of private sector security firms, systems and detectives suggests that the state provision is not at an efficient market-clearing level.
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			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 *	NHS figures show that a declining number of children are receiving all their routine vaccinations, including meningitis and the combined measles, mumps and rubella (MMR) vaccine. In some cases, vaccination rates of children are as low as 90%. Evaluate the significance of information failure in decisions made about the consumption of merit goods. Level 5 (21–25 marks) Good – Strong knowledge and understanding of the role of information failure in making consumption decisions about merit goods. Strong analysis of the role of information failure in decisions to consume merit goods. It 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. Strong evaluation of whether information failure affects decisions when consuming merit goods, weighing up both sides/comparing alternatives and reaching a supported judgment. <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>	25 (AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)	For a mark at the top of each level the response should be in context. A merit good is one which the government believes will be under-consumed in a free market. As people may not fully recognise the benefits to be gained from consumption of the good, they will demand less than is socially desirable. Examples may include education, healthcare and insurance. For a market to perform its role in allocating resources, all economic agents (i.e. buyers and sellers) need to have full and accurate information about market conditions; otherwise, they will not be able to make rational decisions. If only one group of agents (or one side of the economic transaction) have this information (known as ‘asymmetric information’) then information failure is said to occur (which may lead to market failure, in the form of an inefficient or sub-optimal level of consumption). For example, the main beneficiary of education is the child (and arguably the economy) who is unlikely to be paying for the education or making the decision about how much to consume. The parents may wish to pay as little as possible for the education, but it is in the child’s best interest to have as much education as possible (the ‘principal agent problem’). Healthcare is another good example of a market where asymmetric information affects the consumption of merit goods. If a doctor tells you to have an injection or medical procedure which will benefit you (and society), only the doctor really knows or understands what will be involved (and how safe or painful it will be). The consumer may only be interested in themselves, so the idea of

	Level 4 (16–20 marks) Good knowledge and understanding of the role of information failure in making consumption decisions about merit goods. Strong analysis of the role of information failure in decisions to consume merit goods. It 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. <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> Level 3 (11–15 marks) Good knowledge and understanding of the role of information failure in making consumption decisions about merit goods. Good analysis of the role of information failure in decisions to consume merit goods. 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 role of information failure when consuming merit goods. <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>	‘herd immunity’ may be of no interest to them (even if they understand the concept involved!) Even if the consumer has made an attempt to inform themselves, there is no guarantee that what they have found out is correct (given the amount of ambiguous, or incorrect, information that is now available from social media, pressure groups or ‘friends’). Ultimately, the consumer comes to a decision based on their own utility, now (as opposed to society over the next 50 years) which is likely to lead to under-consumption of the merit good. The problem of information failure may be minimised by the government stepping in to provide the missing information. For example, publicity campaigns about the dangers of smoking, drinking/drug taking while driving or the need for childhood vaccinations. It may also attempt to counteract ‘fake news’ circulated on the Internet, as in the case of the alleged link between MMR and autism. In extreme cases, the government may even introduce legislation (as is the case with non-vaccinated children in some US states being prevented from attending school/college). Better answers may recognise other relevant factors which may affect the amount of information failure taking place, including the role taken by the state in different situations. They may also recognise issues other than information failure which may lead to a sub-optimal level of consumption of goods (e.g. monopoly power, inefficient allocation or scarcity of resources).
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		Level 2 (6–10 marks) Good knowledge and understanding of the role of information failure in making consumption decisions about merit goods. Reasonable analysis of the role of information failure in decisions to consume merit goods. 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. Reasonable evaluation of the role of information failure when consuming merit goods. <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> Level 1 (1–5 marks) Reasonable knowledge and understanding of information failure or merit goods. Limited or no analysis of the role of information failure. 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 the role of information failure in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.		
		Descriptor	Award mark	

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		On the borderline of this level and the one below	At bottom of level

Assessment Objectives Grid

Question	AO1	AO2	AO3	AO4	TOTAL	(Quantitative Skills)
1(a)	2(2)	2(2)			4	(4)
1(b)	2				2	
1(c)		2(2)			2	(2)
1(d)(i)		2(2)			2	(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 (4)	20 (8)	20 (2)	22 (2)	80	(16)

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