



Mark Scheme (Results)

January 2022

Pearson Edexcel International A Level In
Economics (WEC13)

Paper 1: Business Behaviour

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Section A

Question	Quantitative skills assessed	Answer	Mark
1	QS4: Construct and interpret a range of standard graphical forms QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	The only correct answer is C A is incorrect because average revenue would never be below marginal revenue B is incorrect because this is not the shutdown point D is incorrect because the firm would continue to operate	(1)
2	QS4: Construct and interpret a range of standard graphical forms QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	The only correct answer is D A is incorrect because MR is not equal to 0 B is incorrect because this is not the lowest point on the ATC curve C is incorrect because the firm is making supernormal profit	(1)
3	QS6: Calculate cost, revenue and profit (marginal, average, totals) QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	The only correct answer is C A is incorrect as this is the average revenue for Q4 2020 B is incorrect as this is the average revenue for Q4 2017 D is incorrect as this is the average revenue for Q4 2018	(1)

4	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	The only correct answer is B A is incorrect because more passengers are a likely to cause a rise in employment C is incorrect because it is unlikely to cause a rise in unemployment since costs have decreased D is incorrect because it is unlikely to cause a rise in unemployment since costs have decreased	(1)
5	QS4: Construct and interpret a range of standard graphical forms QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	The only correct answer is A B is incorrect because this was unemployment at the lower minimum wage C is incorrect because demand would contract from Q_2 to Q_1 D is incorrect because supply would extend from Q_3 to Q_4	(1)
6	QS4: Construct and interpret a range of standard graphical forms QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	The only correct answer is D A is incorrect because the firm will be allocatively efficient and only normal profit will be made in the long-run B is incorrect because the firm will be allocatively efficient C is incorrect because the firm will make normal profit	(1)

Section B

Question	With reference to Figure 1, calculate the four-firm concentration ratio for the US car market in 2019. Answer	Mark
7(a)	Application 2 Quantitative skills assessed: QS2: Calculate, use and understand percentages, percentage changes and percentage point changes QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. Up to 2 marks for calculation: • $16.9 + 14 + 14 + 13$ (1) = 57.9% (1) NB: Award full marks for correct answer (57.9%) regardless of working. Award 1 mark without the percentage sign award e.g. 57.9 (1)	(2)

Question	With reference to Extract A, explain what is meant by 'horizontal integration'. Answer	Mark
7(b)	Knowledge 2 Application 2 Quantitative skills assessed: QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. Knowledge: Up to 2 marks for the definition of horizontal integration: When two firms merge at the same stage of the production process (1) in the same industry (1) Application: Up to 2 marks for application to context of PSA Group and Fiat Chrysler merger - PSA Group and Fiat Chrysler merge to create Stellantis (1) - PSA Group and Fiat Chrysler merge to create the world's third biggest car manufacturer by volume (1) - PSA Group and Fiat Chrysler both produce cars (1)	(4)

Question	With reference to Extract A, analyse two barriers that Stellantis are likely to experience when trying to increase market share in China. Answer	Mark
7(c)	Knowledge 2 Application 2 Analysis 2 Quantitative skills assessed: QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. Knowledge and analysis 1 mark for a definition of barriers to entry- factors that prevent or make it difficult for new firms to enter a market (1) Up to 2 marks for identifying two barriers and 1 mark for linked expansion of each e.g. • Lack of knowledge/experience/ language/cultural awareness of the market (1) makes it more difficult for Stellantis to adapt cars to meet consumer's needs (1) • High levels of competition in the Chinese market (1) increases marketing costs and risks (1) • Brand loyalty (1) consumers will have habitual consumption of cars making it difficult to sell in the market (1) • High sunk costs (1) makes it more expensive to enter the new market/gain market share (1) Application Up to 2 marks for application to Extract A • In 2020 the two firms had a total 1% market share in China (1) • Chinese car firms had a 40% market share (1) • The Chinese car market is dominated by many well-established firms including Volkswagen/Honda/Toyota (1)	(6)

Question	With reference to Extract A, examine the impact of an increase in car sales in the USA on the profits of Stellantis. Illustrate your answer with an appropriate diagram. Answer	Mark
7(d)	Knowledge 2 Application 2 Analysis 2 Evaluation 2 Quantitative skills assessed: QS4: Construct and interpret a range of standard graphical forms QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. Knowledge Up to 2 marks for drawing a diagram that shows knowledge of: • Original AR1, MR1, AC, MC with profit maximising output (1) • Outward shift of AR1 to AR2 and MR1 to MR2 (1) Analysis Up to 2 marks for impact of the merger on the new firms profits, e.g. • Original supernormal profit A B AC1 P1 (1) • New supernormal profit C E AC2 P2 (1) • The increase in revenue increases supernormal profit (1) Application • Following the merger/in Q1 2021 Stellantis experienced a 25% increase in revenue (1) • PSA will gain access to Fiat Chrysler 3 000 car showrooms (1)	(8)

	Evaluation Up to 2 marks for evaluative comments, e.g.: • Growing into new markets may be difficult to manage causing diseconomies of scale (1) increasing costs and reducing profits (1) • Car sales growth may help achieve economies of scale (1) helping increase profits further (1) • The USA is only one of a number of markets for Stellantis (1) so profit levels could be impacted from other markets (1) • Changes in costs may impact the profit levels (1) • The increases in car sales may be temporary (1)	
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Question	With reference to the information provided and your own knowledge, discuss the possible impact of the merger between PSA Group and Fiat Chrysler on workers and consumers. Indicative content
7(e)	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited. Knowledge, Application, Analysis (8 marks) – indicative content Workers • If factories close to reduce costs, 3000 Vauxhall workers will lose their jobs making them unemployed and decreasing their standards of living • Workers are highly skilled, the factory closure could cause occupational immobility of labour in the sector. This may cause long-term unemployment • The government may need to increase training for these workers to provide more transferable skills • There may not be many job opportunities for car manufacturing employees. Workers may not want to move to areas with jobs available as a result of geographical immobility of labour

	Consumers • Stellantis may not lower prices in response to cost savings • If diseconomies of scale arise e.g. from managing a large number of brands, prices may rise • Development in technology only happens in the production process, quality may not improve • Increased market power may lead to increased prices • Choice may reduce as Stellantis reduce the models available If only one economic agent is considered then limit KAA to Level 2 Accept reverse argument	
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 3	7–8	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.
	Evaluation (6 marks) – indicative content Workers • The trade union is in talks with Stellantis and there might not be any factory closures • Employees might have some transferable skills and find job opportunities in other industries	

		• If training programmes are available, employees may become employed in the long-run • If factory closures are limited then the significance may not be as great • High skilled workers have high productivity and therefore are likely to find employment in other occupations Consumers • Increase in consumer surplus if prices fall after the merger and the firm benefits from economies of scale • Increase choice as firms share research and development into areas such as electric cars; creating new cars for consumers to purchase • Increase in quality products from the sharing production expertise and technological knowledge • New cars take a long time to develop and may have little impact in the short-run
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–2	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	5–6	Evaluation recognises different viewpoints and/or is critical of the evidence. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

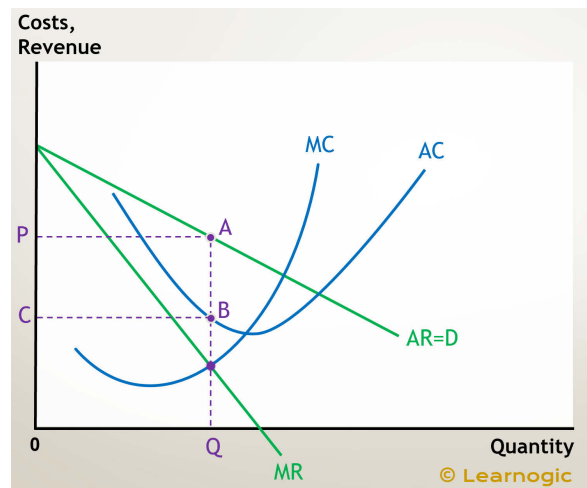
Section C

Question	Evaluate the possible benefits of collusive behaviour between firms. Use a simple game theory model in your answer. Indicative content
8	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. Quantitative skills assessed: QS4: Construct and interpret a range of standard graphical forms. QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. Knowledge, Application, Analysis (12 marks) – indicative content Indicative content • Definition of collusion – where firms agree to cooperate in their pricing and output policies. • Applies where the market is an oligopoly and the firms are interdependent. • Collusion provides the pharmaceutical companies with the ability to fix prices and limit output that wouldn't be possible if the firms were competing • Ability for each firm to increase its supernormal profit as consumers have to pay higher prices for goods • Collusive behaviour might increase entry barriers so enabling existing firms to increase their supernormal profits • Barriers enable firms to restrict competition increasing revenue and profits • Reduces unpredictability and uncertainty in the pharmaceutical market which may lead to higher levels of investment from firms/firms can save money by not competing helping to reduce costs and increase profits • Candidates provide an appropriate diagram e.g. below

Payoff matrix		Firm B	
		High price	Low price
Firm A	High price	£7m / £7m	£11m / £2m
	Low price	£11m / £2m	£4m / £4m

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- Firm colluding will agree to sell at the high price, high price outcome to increase revenues
- Without collusion both firms will sell at the low price, low price outcome with lower revenues
- Collusive firms may act like a monopolist to increase supernormal profits. (May draw cost and revenue diagram)



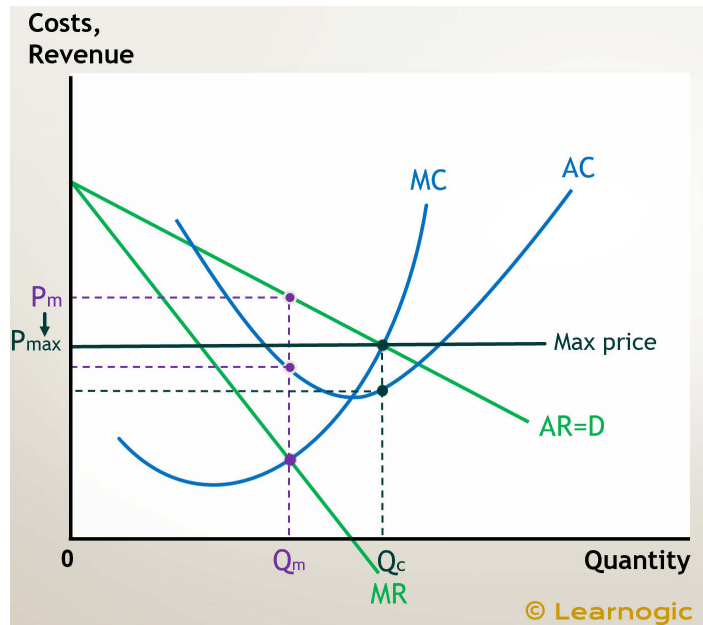
- Super-normal profits are made at PABC
- If the profits of the pharmaceutical firms increase, this may enable them to invest in more research and development, leading to new pharmaceutical drugs being produced
- Prices may be less volatile, making it easier for healthcare providers to plan their expenditure on pharmaceutical products
- Possible benefit to consumers is that sharing of information between firms can help with product development e.g. vaccine development, or safety data

NB if no game theory model candidate can achieve a maximum of level 3

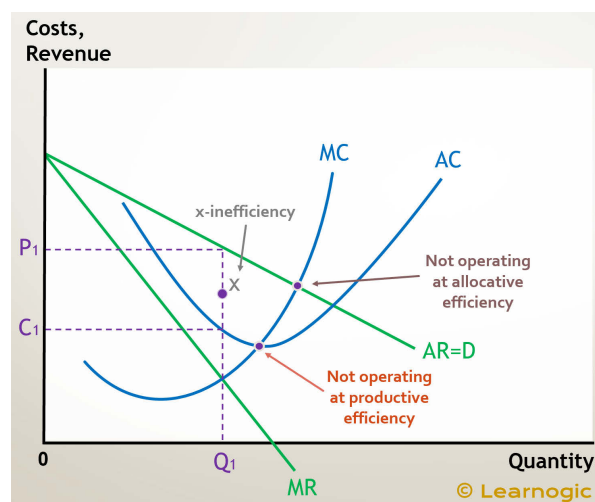
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Limited application of knowledge and understanding to economic problems in context. A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.
Level 3	7–9	Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.
	Evaluation (8 marks) – indicative content • Higher prices after the agreement reducing consumer surplus • Less choice if firms reduce output, reducing standards of living • Exposure of illegal price fixing by the government may increase costs to the firm if they have to pay heavy fines (£1.2 million) • It negatively impacts firms trying to enter the pharmaceutical market as barriers to entry have increased • Breakdown of trust between colluders may lead to breakdown of any collusive agreements • Short run may be sustained but more problematic in the long run • Lack of coordination • New entry into the market	

		Collusive behaviour resulting in more non-price competition could increase costs of firms
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7–8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Question	Evaluate methods that a government could use to control monopoly behaviour. Illustrate your answer with an appropriate diagram(s). Indicative content
9	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. Quantitative skills assessed: QS4: Construct and interpret a range of standard graphical forms. QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. Knowledge, Application, Analysis (12 marks) – indicative content - A monopoly market structure is when there is one single dominant supplier in the market. These firms possess price setting ability - Government intervention is in response to a market failure - Monopolies tend to charge a higher price than in a competitive market. - The introduction of a price cap/maximum price- price ceiling above which firms cannot charge - Diagram to show impact of maximum price on a monopoly diagram



- The introduction of the price cap at P_{max} stops the monopoly charging a price at P_m reducing the level of supernormal profits and producer surplus made
- Monopolies are inefficient and government intervention is needed to improve efficiency and to avoid consumer exploitation



- The government can use maximum price on goods, such as water to stop prices increasing and force the monopolist to charge the allocatively efficient price ($P = MC$)
- The price is set below the monopoly equilibrium, reducing the price level, increasing consumer surplus
- Price regulation can stop a firm increasing prices in line with inflation if there is any X-inefficiency in the business
- The government may use profit regulation, this limits the amount of total profit that can be earned by a firm operating in an industry, encouraging lower prices or increased investment

		• Quality standards may be set e.g. to ensure a minimum legal quality of water being produced • Performance targets aim to regulate the quality produced by the monopoly through ensuring there is adequate output/safety standards of water produced • Imposition of fines for poor performance • Nationalisation of the monopoly • Measures to reduce entry barriers/increase contestability NB if no diagram candidate can achieve a maximum of level 3
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Limited application of knowledge and understanding to economic problems in context. A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.
Level 3	7–9	Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

Evaluation (8 marks) – indicative content • Government failure and unintended consequences: examples below • If regulatory capture occurs the regulator may become focused on the interests of the firms they regulate rather than on the public interest • Profit regulation/price control may limit the ability for the monopoly to be dynamically efficient or improve the quality of drinking water production • Profit regulation/price control may reduce profits leading to the companies having insufficient funds for investment e.g. to improve water quality • The level of X-inefficiency can be hard to estimate. If overestimated the firm may find it difficult to be profitable • Performance targets may move the focus of the firm away from essential services reducing quality in other areas of the business • If there is asymmetric information/information gaps in the market, the regulator may not know the issues/problems associated with specific monopoly therefore may not put in place sufficient regulation to control the firm • If the regulator has inadequate resources it may not be able to control the monopoly or fully investigate the level of inefficiency/market abuse • Lack of regulatory power may stop any regulation being implemented effectively		
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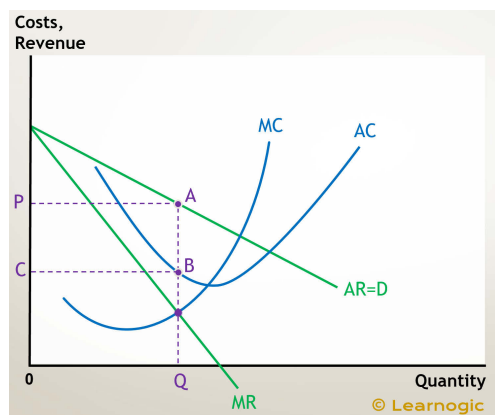
Question	Evaluate the view that revenue maximisation is always the main objective of a firm. Illustrate your answer with an appropriate diagram(s). Indicative content
10	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. Quantitative skills assessed: QS4: Construct and interpret a range of standard graphical forms. QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. Knowledge, Application and Analysis (12 marks) – indicative content • Business objectives defined or listed • Revenue maximisation $MR=0$ The graph illustrates the relationship between costs and revenue for a firm. The vertical axis represents 'Costs, Revenue' and the horizontal axis represents 'Quantity'. There are four curves: Marginal Cost (MC), Average Cost (AC), Marginal Revenue (MR), and Average Revenue (AR=D). The MC curve is upward sloping. The AC curve is U-shaped. The MR curve is downward sloping and steeper than the AR=D curve. The AR=D curve is downward sloping. Point A is the intersection of the MC curve and the AR=D curve. A horizontal dashed line from point A to the vertical axis indicates the price P_r. A vertical dashed line from point A to the horizontal axis indicates the quantity Q_r. The MR curve intersects the horizontal axis at the same quantity Q_r, where $MR=0$. The origin is marked with 0. The copyright notice '© Learnogic' is at the bottom right of the graph area. • This point allows the business to achieve the highest level of revenue • At point A the firm is maximising revenue • Firms in competitive markets may not maximise profits in order to increase their market share, therefore they operate where $MR=0$ • Revenue maximisation will increase the output and sales, helping to increase market share, compared with the profit maximisation level of output • Increasing quantity may also help the firm to achieve economies of scale as it grows in size, lowering average costs • In the short-run firms might have a revenue maximising goal to establish themselves in the market e.g. in China

		• If there are low barriers to entry into the market a firm may have a revenue maximising objective to deter new entrants into the market • If demand is elastic firms may have a revenue maximising objective to maintain low prices • Firms may revenue maximise in the short-run to increase market share and build monopoly power in the long-run NB if no diagram candidate can achieve a maximum of level 3
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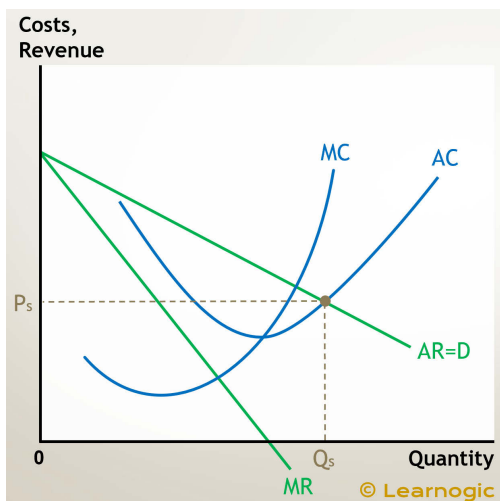
Evaluation (8 marks) – indicative content

- Divorce between ownership control may occur and satisficing behaviour may cause the managers and owners to have different objectives
- Revenue maximisation may only be a short-run objective
- The firm may wish to change its objective in the long-run when the firm is more established and can increase prices more easily/market conditions may change
- Level of contestability will impact the objectives of the firm, the higher the barriers to entry the more likely the firm will be profit maximising
- Other objectives might be more significant:
- Firm survival for small or new firm in the industry

Profit maximisation occurs when $MR=MC$



- This enables the firm to achieve supernormal profits PABC
- Sales volume maximisation occurs when $AC=AR$



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