Mark Scheme (Results)

Summer 2023

International A Level in

Economics (WEC13)

Unit 3: 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	**QS9:** Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	**The only correct answer is C** **A** is incorrect because the firms are at the same stage of production **B** is incorrect because the firms are at the same stage of production **D** is incorrect because the firms are in the same industry	**(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 marginal costs are rising **B** is incorrect because there are diseconomies of scale **C** is incorrect because marginal costs are rising	**(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 B** **A** is incorrect because this is the increase in the wage for the original 50 workers **C** is incorrect because this is the total cost of employing 50 workers **D** is incorrect because this is the total cost of employing 51 workers	**(1)**
4	**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 number of firms would fall B is incorrect because the firm is making a loss C is incorrect because the firm is making a loss and the number of firms would fall	**(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 D** **A** is incorrect because at this level of output profits would be maximised **B** is incorrect because at this level of output total revenue will not be maximised **C** is incorrect because at this level of output average revenue will be greater than zero	**(1)**
6	**QS9:** Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	**The only correct answer is B** **A** is incorrect because this indicates that barriers to entry are low **C** is incorrect because this would encourage entry into the industry	**(1)**

		D is incorrect because this suggests that it is relatively easy for firms to enter the industry	

Section B

Question	With reference to Figure 1, calculate the percentage change in Deliveroo's total revenue between 2017 and 2021.	Mark
	Answer	
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:	
	(1824-277)=1547 **(1)**	
	(1547/277)x 100 =558.48% **(1)**	
	NB: Award full marks for correct answer (558.48, 558.5, 558, 559) regardless of working. Award full marks if % is omitted.	
		(2)

Question	With reference to Figure 2, explain the market structure of the UK food delivery market in 2021.	Mark
	Answer	
7(b)	**Knowledge 2 Application 2**	
	Quantitative skills assessed:	
	QS1: Calculate, use and understand ratios and fractions	
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	
	Knowledge:	
	1 mark for the identification of the market structure:	
	• Identification of oligopoly **(1)**	
	1 mark for identification of a characteristic of this market structure	
	• A small number of firms dominate the market/interdependence/imperfect information/ differentiated goods/high barriers to entry/ high concentration ratio **(1)**	
	Application:	
	Up to 2 marks for application to context of the food delivery market **(1+1)** e.g.:	
	• The 3-firm concentration ratio was 94%**(2)**	**(4)**

| | • The 4-firm concentration ratio was 97% **(2)**
• Deliveroo and Uber Eats combined market share was 54% in 2021 **(1)**
• Just Eat had the largest market share (40%) **(1)** | |

Question	With reference to Extract B, analyse **two** factors that influence the demand for online food delivery. **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** Up to 2 marks for identifying two factors influencing the demand for online food delivery and 1 analysis mark for each linked expansion: • Change in consumer preferences **(1K)** less demand for luxury items as people focus on buying essential items **(1AN)** • Change in real incomes **(1K)** e.g. real wages fell by 5.1% in June 2022 in the EU causing a fall in demand for online food deliveries **(1AN)** • Change in the number of people living in cities **(1K)** when more people move to cities there will be greater demand for online food deliveries **(1AN)** • Change in advertising/marketing expenditure **(1K)** e.g. increase in marketing expenditure is likely to raise consumer awareness and lead to an increase in demand **(1AN)** • Change in technology **(1K)** improvements in internet connectivity and smart phone usage have made online ordering more popular **(1AN)** • Increasing access to technology **(1K)** making online ordering easier and available to a wider range of consumers **(1AN)** **Application** Up to 2 marks for use of the context e.g. • The average value of an order for a takeaway meal fell **(1)** • From 2015 to 2025, there is expected to be a 7.6% increase in the population living in cities in the UK **(1)** • In the European Union in June 2022 the annual growth in wages was 4.5% **(1)** but the annual inflation rate was 9.6% **(1)** • Just Eat's marketing expenditure in the first half of 2021 totalled £252 million **(1)** • Online ordering and food delivery is growing at an annual rate of between 15% **(1)** and 20% in the UK **(1)**	**(6)**

Question		Mark
	With reference to Figure 1 and the first paragraph of Extract B, examine **two** reasons why Deliveroo is making a loss. Illustrate your answer with an appropriate diagram(s). **Answer**	
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.	**(8)**

Knowledge

A diagram that shows knowledge of:

- Downward sloping AR and MR **(1)**

- MC=MR and loss-minimising equilibrium **(1)**

Analysis

A diagram that shows knowledge of:

- Area of loss identified **(1)**

- AC above AR **(1)**

Application

- Loss of £298m **(1)**

- Revenue was increasing but at a slower rate than the costs of production **(1)**

- loss rose by £99m/ Loss rose from £199m **(1)** to £298m **(1)/** Loss rose by 49.7% **(1+1)**

- Increase costs of production **(1)**

- Fuel costs have increased **(1)**

- In 2021 Deliveroo made a loss of £298 million **(1)**

- Marketing costs and fixed costs increased from £358.5 million in 2020 to £628.7 million in 2021 **(1)**

- High rates of inflation across Europe **(1)**

- For calculation of total costs in 2020 (£1386m) and 2021 (£2122m) **(1+1)**

Evaluation

Up to 2 marks for evaluative comments (1+1 or 2 + 0), e.g.:

● The cost increase may only be in the short-run and profits may increase in the long-run **(1)** once the market has matured **(1)/** marketing expenditure begins to fall **(1)**

● Revenue is still increasing and may increase further if real wages have risen **(1)**

● Deliveroo may reduce their costs by shutting down less profitable parts of their business **(1)** This would reduce costs and may increase profits **(1)**

- Price of fuel /rates of inflation may fall in the future **(1)**

- Significance of cost increase **(1)**

Question	Indicative content
	With reference to the information provided, discuss the strategies used by food delivery businesses to increase their market shares. Refer to game theory analysis in your answer.

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.
	
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.
	
	Knowledge, Application, Analysis (8 marks) – indicative content
	
	Understanding of non-price competition e.g.
	
	• Increase in advertising: aim is to increase demand and to make demand less price elastic
	
	• Offering more services to consumers e.g. differentiation through deliveries of grocery shopping along with takeaway orders
	
	  • Use of app. Making it quicker and easier for customers to order takeaways
	
	Understanding of price competition
	
	  • Deliveroo aims to increase market share - reference to sales volume/revenue maximisation through lowering prices
	
	  • Reference to predatory pricing as an example of price war 'to force other competitors to leave the market'
	
	  • Limit pricing to increase barriers to entry/forcing others to leave the market to increase market share
	
	  • 'A price war' : suggests that there was no collusion between the businesses. Reference to game theory, with or without the diagram, to explain effect of no collusion between firms:

DELIVEROO

	Low price	High Price
JUST EAT Low Price	-£200m -£200m	-£200m £20m
High Price	£200m £20m	£200m £150m

	Low price	High Price
Low Price	JUST EAT -£200m / DELIVEROO -£200m	JUST EAT £20m / DELIVEROO £20m...

- The diagram above demonstrates that a price war would result in both businesses making a loss – reference to data in Figure 1

**NB response must make reference to game theory in answer to achieve 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. 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 • Price competition likely to result in losses (use of game theory) • In long-run one or more businesses might exit the industry • Advertising likely to be very expensive – costs incurred might be less than the extra revenue gained • Non-price competition might be ineffective in increasing market share • Game theory suggests that there will be an incentive for businesses to collude to maximise profits

		• Collusion and predatory pricing are illegal in most countries and businesses could be fined

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 impact of imposing a maximum wage. Illustrate your answer with an appropriate diagram(s). **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. • Definition of maximum wage: wage ceiling above which workers cannot be paid • Diagram to illustrate maximum wage below market equilibrium

MAXIMUM WAGE
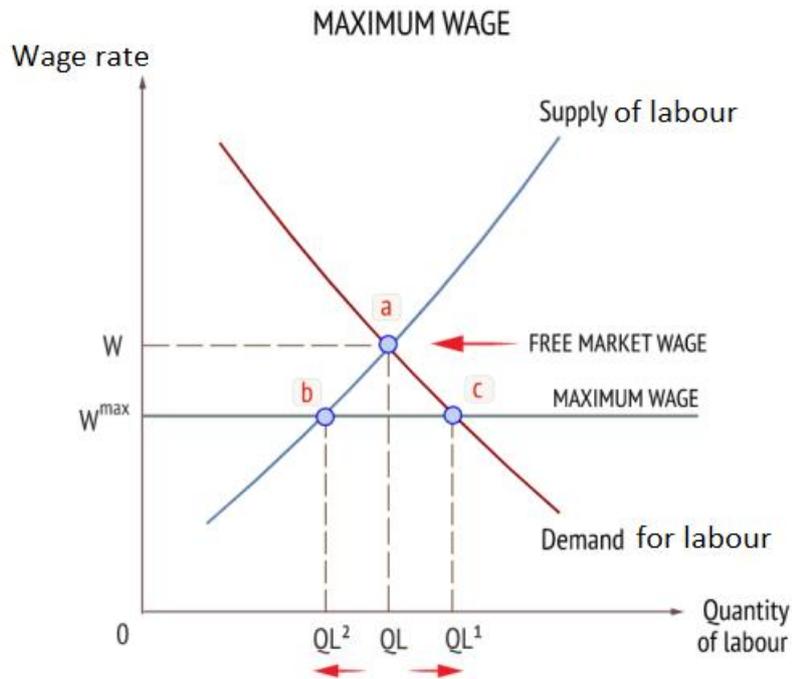
- Contraction of supply of labour QL- QL$_2$
- Extension of demand for labour QL-QL$_1$ that cannot be fulfilled
- Shortage or excess demand for labour
- 200 executives resigned from banking sector
- The pay would not reflect the responsibilities
- Likely to move to other countries/ occupations without a maximum wage
- Loss of highly skilled and experienced banking executives
- Efficiencies are reduced
- May impact government finances, less tax revenue
- Profits could fall as a result of loss of highly skilled workers
- 200 banking executives leaving might be a significant loss to the Egyptian banking sector

NB if no diagram candidate can achieve a maximum of level 3
Negative impacts of national minimum wage may be regarded as KAA and positive impacts as evaluation or vice versa

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
- Impact on supernormal profits/reducing wage costs/reducing average costs and leading to higher profits
- Labour may be immobile between countries/occupations
- Other policies might be more effective- e.g. progressive taxes
- Service charges to consumers are reduced as costs fall for banks
- Impact on shareholders – dividends would rise if profits increased
- Reduction in the difference between those earning the minimum wage and the highest earners
- Improvements in equality in the country
- Impact depends on gap between the competitive wage and the maximum wage
- The Egyptian banks are likely to offer other incentives to retain workers e.g. bonus, company car
- 200 banking executives leaving might be a significant loss to the Egyptian banking sector
- Only impacts a small number of employees, therefore may not be significant
- The government may not set the optimal level of the maximum wage

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.

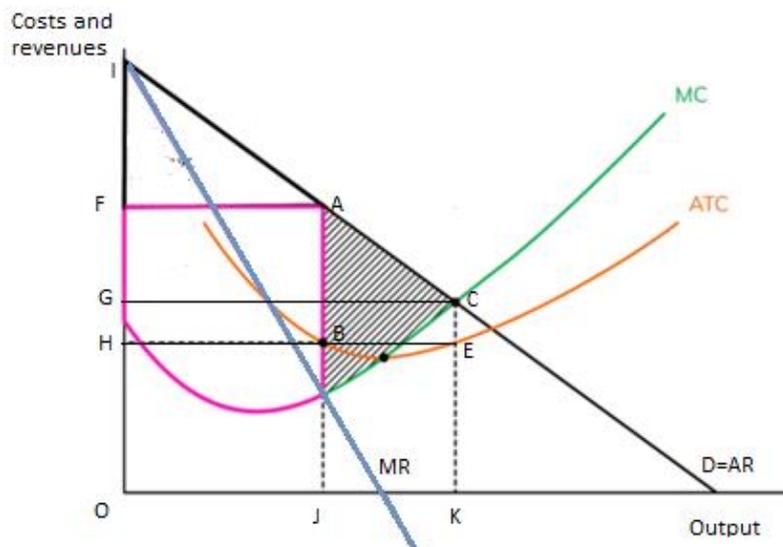| Question	
	Evaluate the impact of a profit maximising monopolist being nationalised. Illustrate your answer with an appropriate diagram(s). **Indicative content**
9	**Indicative content guidance** **Answers must be credited by using the level descriptors (below) in line with the general marking guidance. 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. • Nationalisation is the transfer of a business or industry from private to state ownership or control • Nationalised businesses do not have to make a profit, which could reduce the price of energy for the consumer in France from F to G, if marginal cost pricing is adopted • Output would also increase from J to K • Consumer surplus would increase from AFI to CGI • Producer surplus/supernormal profit would fall • With nationalisation there would be a more secure supply of energy in France, even when costs are rising. This would ensure that energy companies would not exit the market • Natural monopoly diagram could also be included • Profits made by a nationalised business may be used for investment or to finance public services • Nationalised businesses may receive more finance for investment to ensure the stability of energy supplies. This might increase the level of dynamic efficiency in the energy market

- The nationalised EDF is likely to be more regulated than a private energy business as it is run using tax revenues. This could lead to more productive and allocative efficiency
- The energy produced might make more use of green technology as the government may have environmental objectives

NB if no diagram candidate can achieve a maximum of level 3

Positive impacts of nationalisation may be regarded as KAA and negative impacts as evaluation or vice versa

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.
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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 • A nationalised business may be more inefficient than a profit maximising monopolist, as it lacks a profit motive. Therefore there may be a reduction in allocative/productive/dynamic efficiency • Lack of efficiency may increase costs of production for energy, these would be passed onto the consumer with higher energy prices • There is no guarantee that nationalisation would ensure stability of supplies • Marginal cost pricing could result in losses if EDF is a natural monopoly

	•	There might be an increase in diseconomies of scale caused by poor management as the French Government are not expert in energy provision allowing costs to rise
	•	X-inefficiency may cause costs to increase caused by complacency and lack of competition, actual AC above potential AC
	•	The energy firms might be under-funded as a result of the government preferring to invest in other aspects of the economy
	•	EDF may run at a loss/deficit, which may force the government to divert funds from key areas of the French economy to provide support
	•	Nationalised firms are not able to access commercial loans, restricting their access to finance, hindering investment

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	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 why the objectives of small and medium-sized enterprises may differ from those of large enterprises. 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.

Small/medium-sized enterprises

- Small businesses have less than 50 employees and a annual turnover under £10 million/ Medium sized business have less than 250 employees and an annual turnover under £50 million
- Smaller businesses in Malaysia are more likely to remain small and not have growth as an objective because they may lack the finances available to invest in new technologies to expand. This prevents them from increasing output and growth
- The high level of competition in the market for small and medium-sized enterprises making the business have survival as its objective survival
- Smaller/medium-sized enterprises may have survival as an objective as they lack the market power to influence the price or their profit levels
- They may remain small as the owners has the objective of retaining control of the business
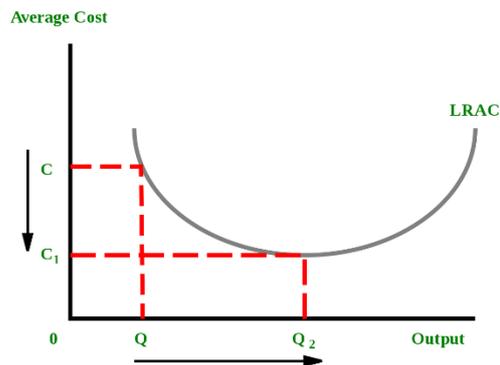
Large enterprises

- Large enterprises are more likely to profit maximise because they have the market power to influence the price and quantity where MC=MR
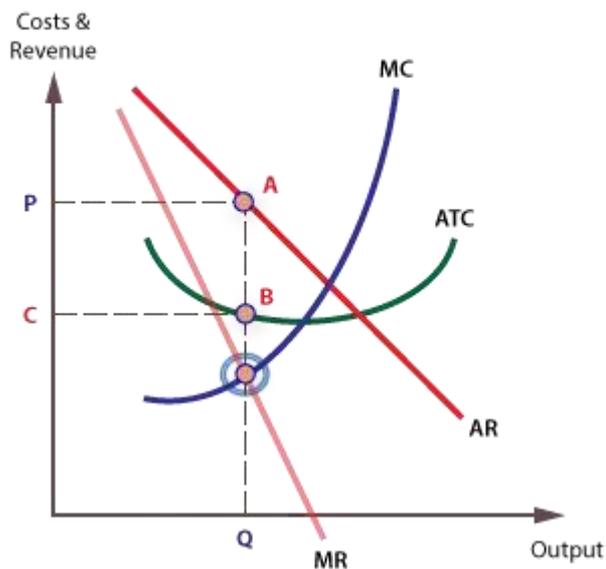
- Large enterprises could also maximise revenues where MR=0 because they want to increase market share and/or to deter the entry of new firms and/or to force other competitors out of the market
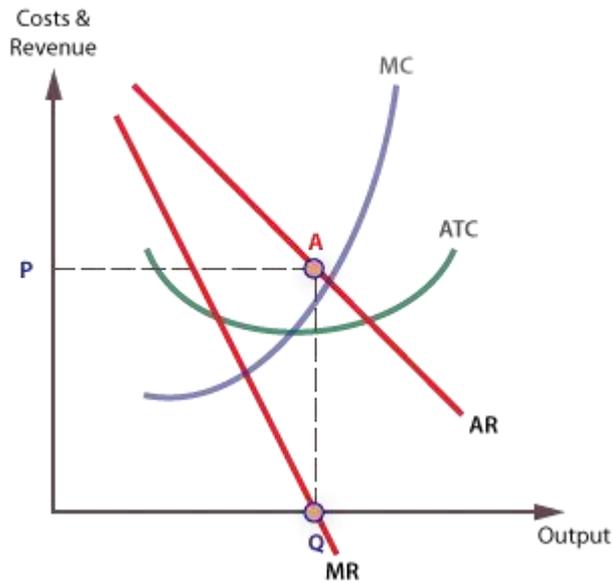
• Large enterprises might have an objective to achieve economies of scale to reduce costs and increase supernormal profit. They will expand to reach their MES at Q2
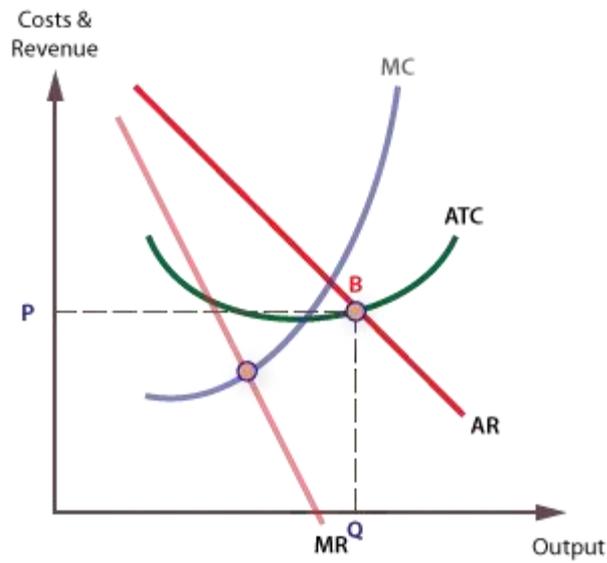

- Large enterprises are more likely to profit satisfice as they are more likely to experience divorce of ownership from control

NB if no diagram candidate can achieve a maximum of level 3

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		Evaluation (8 marks) – indicative content - It depends on the nature of the good. Some enterprises firms in niche markets may have the objective of profit maximisation especially if demand for the product is inelastic - The objective depends on the level of competition, the more competitive the market the more likely sales volume maximisation is the objective even if the enterprise is large - Government support for small and medium-sized enterprises would help them to expand and overcome obstacles such as lack of finance - If the large enterprise is a charity or a government-owned enterprise, profits might not be the objective of the business/ large firms may have environmental and social objectives - Small/medium-sized enterprises may have sales volume maximisation as an objective as the level of competition would make the demand for their products more elastic. Therefore they are likely to set a price and quantity where AC=AR resulting in normal profits

	Mark	Descriptor
	0	No evaluative comments.
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