

Edexcel GCE

Economics

Unit no. 6354

June 2006

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Mark Scheme (Results)

June 2006

Unit 4 MARK SCHEME - 6354

Section A

Answers to multiple choice questions

1	2	3	4	5	6	7	8	9	10
A	D	E	A	D	C	A	E	C	B

Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.

Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.

Question 1

(a)Answer: A	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> • Definition of economies of scale (Long-run average costs fall (1) as output increases(1)). This may be shown by diagram instead. • Application to transport of sea containers - Technical or volume based scale economy (1) 	(2 Marks)
	(1 Mark)
	(Max 4 marks)

Question 2 D

(a)Answer: D	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> • Perfect competition since Average Revenue = Marginal Revenue (1) so firm is a price taker or has a perfectly elastic demand (1). • Normal profits since AR=AC at output 0Qe (1). • Also award for any one characteristic of perfect competition 	(1 mark) (1 mark) (1 mark) (up to 1 mark)
Note: A maximum of 3 marks if no reference to normal profit (1)	
	(Max 4 marks)

Question 3 E

(a)Answer: E	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> • Definition of cost-plus pricing policies (add a percentage profit mark-up (1) to average cost in order to set price) (1). • Application to manufacture of jeans via numerical example or diagram 	(up to 2 Marks)
<ul style="list-style-type: none"> • Also award for reference to an advantage of cost-plus pricing e.g. it protects firm against unforeseen increases in production costs; easy to calculate; useful in long-term projects where costs may vary significantly 	(1 Mark)
	(Max 4 marks)

Question 4

(a)Answer: A	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> • Profit maximisation is where $MC=MR$ (1) • Definition or formula of MR (1) • Use of Marginal analysis (1) 	(1 Mark)
<ul style="list-style-type: none"> • Also award for relevant monopoly diagram (1) 	(1 Mark)
	(Max 4 marks)

Question 5

(a)Answer: D	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> • Definition of sales maximisation (The highest output position attainable for the firm without making a loss) (1) • Sales maximisation is the highest output position where $TC=TR$ (1) • Only normal profits achieved (1) 	(1 Mark)
<ul style="list-style-type: none"> • Also award: output position where $AC=AR$ (1) • Also award reference to output position after sales maximisation (1) 	(1 mark)
	(1 mark)
	(Max 4 marks)

Question 6

(a)Answer: C	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> Diagram which shows a shift inwards of both the AR & MR curves and so causing output & price to fall, or written explanation to this effect (2) Illustration on diagram of falling supernormal profits (1) 	(2 Marks) (1 Mark)
	(Max 4 marks)

Question 7

(a)Answer: A	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> Wide range of menus is an example of product differentiation (1) This could lead to more sales / profits (1) Customer loyalty enables restaurant to keep some customers even when raising price or facing stiff competition (1) Also award for one other characteristic of a monopolistically competitive firm or for diagram (short-run or long-run) (1) 	(1 Mark) (1 Mark) (1 Mark) (1 mark)
	(Max 4 marks)

Question 8 E

(a)Answer: E	(1 Mark)
(b)Explanation:	
Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.	
Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.	
<ul style="list-style-type: none"> Definition of price discrimination or explanation of one characteristic (1) Online shoppers have less price elastic demand than in-store customers (1) and so a higher price charged to internet customers may lead to more revenue / profits (1) Also award relevant application of price discrimination diagram to Tesco customers (1) 	(1 Mark) (2 Marks) (1 mark)
	(Max 4 marks)

Question 9

<p>(a)Answer: C</p>	<p>(1 Mark)</p>
<p>(b)Explanation:</p> <p>Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.</p> <p>Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.</p> <ul style="list-style-type: none"> • Definition or formula of marginal revenue (1 Mark) • Correct calculation e.g. $+\text{£}1.1\text{m}$ minus $\text{£}0.4\text{m} = \text{£}0.7\text{m}$ or $\text{£}5.5\text{m}$ minus $\text{£}4.8\text{m} = \text{£}0.7\text{m}$ (2 Marks) <p>Also award:</p> <ul style="list-style-type: none"> • Initial total revenue $\text{£}4.8$ million ($4 \times \text{£}1.2\text{m}$) (1 Mark) • New total revenue $\text{£}5.5$ million ($5 \times \text{£}1.1\text{m}$) (1 Mark) 	
<p>(Max 4 marks)</p>	

Question 10

<p>(a)Answer: B</p>	<p>(1 Mark)</p>
<p>(b)Explanation:</p> <p>Note 1: Candidates can achieve a maximum of 2 marks for explanation if incorrect option is selected.</p> <p>Note 2: Candidates can achieve up to 2 marks for clearly explaining up to two incorrect options.</p> <ul style="list-style-type: none"> • The state owned gas and electricity industries already have monopoly power (1) (1 mark) • Application of barriers to entry e.g. greater economies of scale or greater sunk costs (up to 2 marks) (2 marks) <p>Also award:</p> <ul style="list-style-type: none"> • A merger would strengthen their positions by reducing competition further (1) (1 mark) • Explanation of role of competition commissioner in promoting for markets to work well (1) (1 mark) 	
<p>(Max 4 marks)</p>	

Section B

Question 11 The Water Industry

- (a) Explain *two* aims of an industry regulator such as Ofwat. (6)

Candidates may refer to any two aims from the extract, namely:

- Encourage water companies to increase efficiency
- Improve or maintain the quality of the good or service for consumers
- Set price limits on what companies can charge to protect consumers
- Ensure companies carry out sufficient investment to make improvements

Other aims may also be used, for example:

- Promote competition and or reduce entry barriers

(3+3 or 4+2 marks)

(Note if no reference to an industry, award a maximum of 3 marks).

- (b) (i) Explain the meaning of the sentence 'The price of water and sewerage services...will rise in real terms by an average of 18 per cent over the next five years' (*Extract 1, lines 1 & 2*). (2)

- Average water bills will rise by 18% above the rate of inflation (2 marks)
- Also award reference to price capping formula $RPI + k = \text{price rise}$ (2 marks)

- (b) (ii) With reference to Figures 1 and 2, analyse one possible reason why the permitted price increases in household water and sewerage may vary between regions. (4)

<ul style="list-style-type: none"> • Projected investment requirements differ between the regional water firms and so the regulator may vary the price increase, depending upon how much investment is needed. • Some water companies are more efficient than others and so have different potential efficiency improvements to make. • Each water company starts from a different base: some achieve higher rates of return on their assets than others. The regulator may want to equalise these disparities over time. • Different capital expenditure per customer may require different price increases to achieve parity 	<p>Award the analysis of any one point up to (2 marks)</p> <p>Application to data (2 marks)</p>
Max 4 marks	

(c) Examine one advantage and one disadvantage a water company might experience from a regulatory price control period which lasts for five years.

(8)

(3 + 2 or 2 + 3 marks for advantages / disadvantages)

Advantages

- Revenue estimation: the water company can make accurate forecast on future revenue streams for the next five years.
- Cost savings: the water company has a better idea of how much efficiency improvements need to be made.
- Easier for creating company plan.
- If the regulatory price control is generous for the firm (large price increases permitted) it may gain huge profits.

Disadvantages

- If the regulatory price control is too severe for a firm (small price increases permitted) it may suffer a major fall in profits & revenues
- Generous price control: the regulator may set a much tougher price cap for the next round.
- Problem of external shocks or technological change within the industry. Five years may be too long to set price for any water company in an industry facing technological change or further environmental pressures

Evaluation (2 + 1 or 3 marks)

- Severe price control: consideration of dividends, share prices and cuts to investment programmes. Firm may struggle to obtain the necessary loans to fund future investment programmes.
- Generous price control: consideration of how revenues might be used, e.g. investment, reorganisation of company, shareholder dividends.
- Judgement on whether advantage outweighs disadvantage.
- Candidates may refer to experiences of other regulated industries and link to the water industry, e.g. Gas, Electricity, Telecom, Rail and Postal Services.
- Consideration of how cost savings might be achieved, e.g. staff cuts, pay cuts, ways to improve productivity growth and use of new technology.
- Regulator has discretionary power to adjust price cap within the period.

(d) Examine the extent to which the 'regulatory system protects water companies and their profits at the expense of consumers' (*Extract 1, lines 16 and 17*).

(10)

Three points (2 + 2 + 2) or two points well developed (3 + 3)

Agree with statement (Regulatory system protects companies & their profits)

- Regulatory capture.
- Figure 4 shows significant increase in water companies share prices, implying higher profits & dividends.
- Figure 1 shows the large increase in household water bills (an average of 18% above the rate of inflation).
- Issue of water shortages and leaking pipes.

Disagree with statement (Regulatory system protects companies & their profits)

- Figure 2 shows capital expenditure targets which should improve quality of water & sewerage treatment.
- Figure 3 shows improvements to customer services.

Evaluation (4 marks)

- The price increases are necessary to provide funds to make up for the under-investment in the water industry pre-privatisation.
- The price increases are necessary to meet tougher targets set by EU and UK government concerning water quality & sewerage treatment.
- Short-term versus Long-term.
- Magnitude of variables e.g. price rise, profits or share price rise.

(e) To what extent is the water and sewerage market likely to be a contestable one?

(10)

Explanation of a contestable or non-contestable market (1 +1 marks)

Most candidates are likely to suggest the industry is **non-contestable**. They could refer to both entry and exit barriers.

Two or three points (2 + 2 +2 marks).

Candidates may suggest the water industry is a natural monopoly. The integrated nature of the water infrastructure and the unnecessary duplication of capital if firms were to compete within a region, for example, pipelines, pumping stations, and reservoirs.

- High sunk costs: for example, construction of reservoirs and installation of pipelines which may have a poor second hand value.
- High start-up costs: for example, purchase of land, reservoirs, machinery etc.
- Economies of scale: Technical, financial and managerial types spring to mind here.
- Customer loyalty.
- Issue of imperfect market knowledge for potential entrants.

A minority of candidates may argue that it is a contestable market and this may be valid if: Reference made to the same type of infrastructure organisation as with the gas and rail industries.

Evaluation (2 + 2 marks).

- Customer loyalty. - This may be questionable if a poor service has been provided in the past.
- Prioritise what is most important reason for water industry being non-contestable.
- Contestability may change over time - government may attempt to create similar industry structure to that of gas & rail.
- Magnitude of entry barriers.
- The existence of a regulator indicates likelihood of non-contestability.

Question 12 The Brewing Industry (Producers of Beer)

(a) With reference to Figure 1, identify the market structure of beer production. Justify your answer. (4)

Oligopoly (1) with few sellers and many buyers (1)
 Application & evaluation of concentration ratio to the data (2) (3-firm concentration ratio is 62.2%; 4-firm concentration ratio is 75% ; 5-firm concentration ratio is 81.5%; and 6-firm concentration ratio is 84.4%).
 Use of a statutory monopoly argument for Scottish coverage is valid (2)

(b) (i) Explain the meaning of a 'vertically integrated industry.' (Extract 1, line 4) (2)

<ul style="list-style-type: none"> • Merger between firms at different stages of production in the same industry(2) 	(2 marks)
<ul style="list-style-type: none"> • Also award idea of one firm operating at various stages of production for a good (2) 	(2 marks)
	Max 2 marks

(b) (ii) Assess the advantages and disadvantages to a business of being vertically integrated. (8)

Three points, at least one advantage and one disadvantage required (2+2+2) otherwise award a maximum of 4 out of 6 marks in this section. Candidates may use examples from any industry.

Advantages

- Economies of scale e.g. marketing
- Increase profits by merging profit margins at each stage of production
- Secure market outlets by forward vertical integration - providing direct contact with customers.
- Secure supplies by backward vertical integration - providing more control over quality of inputs.
- Creation of barriers to entry

Disadvantages

- It may lead to an investigation by Competition authorities over creation of entry barriers or securing monopoly power.
- Costs of funding the merger / takeover to the business.
- Over dependency upon one market.
- Firm may lack specialist knowledge to improve efficiency either backwards or forwards in the industry chain
- Diseconomies of scale e.g. managerial.

Evaluation (2 marks)

- Judgement on whether advantages outweigh disadvantages.
- Short-run V long-run implications.
- Consideration of a real world example.
- Vertical integration may strengthen a business in a declining market such as beer production.

(c) Evaluate the likely impact on competition in the beer production industry of the decision by the competition authorities to force breweries to 'sell off most of their public houses' (*Extract 1, lines 2 and 3*).

(8)

(3+3 or 2+2+2 marks)

- An increase in competition since a reduction in entry barriers to pub market.
- Beer production companies would compete to sell their beer to new independently owned pubs.
- An increase in price and non-price competition.
- Major firms entered the pub market and set up pub chains

However, the reverse may have occurred, leading to a decrease in competition in the beer production industry.

- The extract refers to the closure of more than forty breweries and an increase in industrial concentration (*line 7*).
- Some breweries may have considered that insufficient profits are made in beer production compared to the profits gained from owning public houses.

Evaluation (2)

- Explanation that the competition authorities policy appears not to have worked in terms of increasing competition in beer production.
- Recognition that competition may have increased in the pub market.
- Some major beer production companies exited the industry and diversified into other leisure interests e.g. hotels, restaurants & health clubs (*lines 8-10*). This indicates more profits could be made in leisure interests rather than beer production.

(d) Discuss the exit barriers that a brewery might face when planning to leave the industry.

(8)

(2+2+2 or 3+3 marks)

Exit barriers include:

- Redundancy payments
- Loss of marketing expenditure
- Low resale value of machinery and factories

- Declining market due to competition from wine industry so may receive fewer & lower offers for purchase

Also award explanation of exit barriers such as sunk costs. (1)

Evaluation (2)

- Significance of exit barriers e.g. great or small, e.g. automated production may mean relatively few staff and so less redundancy payments. Or, highly specialised machinery so only has scrap value.
- Brewery could wait for consumption of fixed assets to reduce exit costs.
- The possibility of selling well known brands could help reduce the exit costs associated with marketing.
- Some firms may be keen to enter UK brewing industry by buying incumbents.

(e) Is it inevitable that the numbers of small producers in an industry such as beer production will decline? Justify your answer.

(10)

Three points required, (2+2+2)

Candidates may use examples from different industries and apply the principles below:

Decline may be inevitable since:

- Economies of scale of large breweries
- Development of brand loyalty over time
- Barriers to entry for small firms - so those exiting are not replaced
- Declining beer consumption shown by Figure 2 - so hard for firms (including small firms) to survive.
- Extract indicates closure of more than forty small breweries (*line 7*)

Decline may not be inevitable since:

- Niche markets - specialist beers with small market size. The absence of scale economies make it safer from large beer producers.
- Consumer desire for greater choice
- Higher quality offered by small producers
- Customer loyalty to locally produced beers
- The large pub companies (buyers) may want variety from small breweries
- Government finance for small breweries
- Competition laws restricting acquisition activity of large breweries
- Pressure groups may support small firms e.g. Campaign for Real Ale in beer industry.

Evaluation (2+2)

- Judgement on whether decline is inevitable - with reasons.
- Consideration of short-term and long-term
- Consideration of both views

Unit 4: Assessment Objectives Grid - June 2006

Question	Knowledge	Application	Analysis	Evaluation	Total
Section A					
Qn 1	2	1	1		4
Qn 2	2	1	1		4
Qn 3	2	1	1		4
Qn 4	1	1	1	1	4
Qn 5	2	1	1		4
Qn 6	1	1	1	1	4
Qn 7	1	1	1	1	4
Qn 8	1	1	1	1	4
Qn 9	2	1	1		4
Qn 10	1	1	1	1	4
Total A	15	10	10	5	40
Section B					
Qn 11 (a)	3	3			6
Qn 11 (b) (i)		1	1		2
Qn 11 (b) (ii)		2	2		4
Qn 11 (c)			5	3	8
Qn 11 (d)		2	4	4	10
Qn 11 (e)	2	2	2	4	10
Total B	5	10	14	11	40
Qn 12 (a)	1	1	1	1	4
Qn 12 (b) (i)	2				2
Qn 12 (b) (ii)		2	4	2	8
Qn 12 (c)		2	4	2	8
Qn 12 (d)	2	2	2	2	8
Qn 12 (e)		3	3	4	10
Total B	5	10	14	11	40
Grand Total A + B	20	20	24	16	80