Mark Scheme (Results)

Summer 2017

Pearson Edexcel GCE A Level
in Economics (6EC03)

Paper 01 Business Economics and Economic
Efficiency

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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.

General marking guidelines 6EC03 Supported Choice Questions

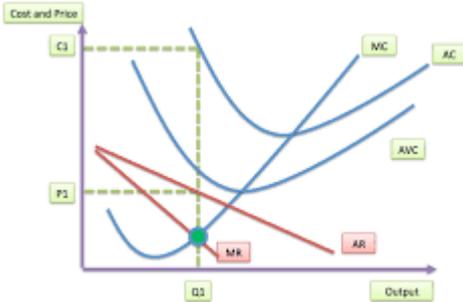There is a maximum of 2 marks for explanation if the key is incorrect.

Knockout marks:

Candidates can be awarded up to 2 marks, 1 per point, for knocking out incorrect answers. This only counts if they have given a valid economic reason to go with their answer, where they have added value to the question. E.g. for question 1, 'It is not A because this option ignores costs, but costs must be taken into account for normal profit AR=AC' is worth 1 mark.
Candidates can also receive knockout marks without explicitly selecting a letter, if it's a clear reference is made to a key.

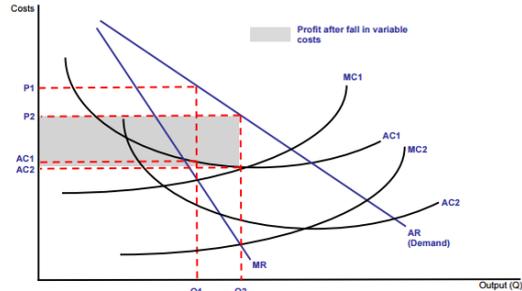| Question Number	Answer	Mark
1	Key: A	**(1)**
	Explanation: Identification of **horizontal integration** (1). Explanation of a takeover horizontally, e.g. one firm takes a controlling share of another at the same stage of a production process (1).	
	Application, e.g. the action will give Aviva access to increased UK market share or reduce competition in the UK meaning there is more control of the market (1)	
	Consequences, e.g. economies of scale, monopoly power, changes in price	
	Examples of knock-out marks (up to 1+1): • It is not B because the firm is merging with a firm in the *same* production process not at a *different* stage of the same process • It is not E because this option would mean the firm likely to be increasingly exposed to the risks of concentrating on one product area	
		(3)

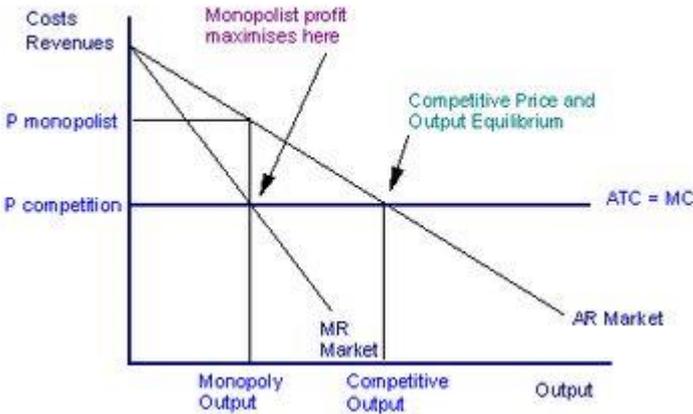| Question Number	Answer	Mark
2	Key: B	(1)
	Definition of supernormal profits, or AR>ATC or AR>AC (1);	
	Explanation (1+1+1): characteristic of perfect competition, e.g. many independent firms, price taker (1) Analysis: firms enter because they are attracted by supernormal profits(1); easy to enter because entry barriers are non-existent (1);	
	Diagram: (up to 3 marks) showing firms entering industry/reduction in supply (1) with profit area (1) subsequent fall in price for other firms (1) and smaller output per firm (1). Award horizontal AR=MR if this has not been awarded as a characteristic of perfect competition (1).	
	Example of a knock out: not E as shut down point is P=AVC (long run P=AC) so firms continue as long as prices are not below this.	(3)

Question Number	Answer	Mark
3	Key: B	**(1)**
	Definition or formula of AVC (1) AR>AVC or P>AVC as a condition for staying in business in the short run (1) MC=MR for profit maximisation (1) A business will leave the industry when it is not covering the operating costs/factors which do not have to be paid if there is no output, i.e. shut down point is AR=AVC, or similar definition (1). If it can exceed these costs it makes a **contribution** to fixed costs/reduces the overall costs that must be paid (1). In the long run it will cover all costs or shut down, or 'in the long run all costs are variable' (1) application to steel industry, e.g. high sunk costs is exit barrier (1 mark) Diagram up to (2 marks): 1 mark for showing shut down point, 1 mark for price/AR below AC or ATC (1) loss area (1) and/or contribution area (1) Cost and Price — C1 — MC — AC — AVC — P1 — MR — AR — Q1 — Output	**(3)**

Question Number	Answer	Mark
4	Key: D	**(1)**
	Explanation: Profit maximisation is MC=MR (1) TR calculations correct (1) MR calculations correct (1) TC calculations correct (1) Total profit calculations correct (1) identification that £7 is the MC and MR at equilibrium (1)	

Q	P	TR	MR	TC	MC
0	20	0	-	30	-
1	18	18	18	32	2
2	16	32	14	35	3
3	14	42	10	39	4
4	12	48	6	45	6
5	10	50	2	55	10

Note that answers could also show TR TC and Total Profit in the columns with TP replacing the MR column and therefore no need for MC=MR:

Q	P	TR	Total Profit	TC	MC
0	20	0	-30	30	-
1	18	18	-14	32	2
2	16	32	-3	35	3
3	14	42	3	39	4
4	12	48	3	45	6
5	10	50	-1	55	10

Note that the mark for filling the column is awarded as long as there is sufficient data for making an observation. For example the MC column can stop at 6 because this is where it equals MR.

(3)

Question Number	Answer	Mark
5	Key: E	**(1)**
	Explanation: Definition of price discrimination, e.g. when a firm charges more than one price for the same good or service (1);	
	Demand in school holiday market is relatively price inelastic (holiday time) or term time is relatively price elastic (1)	
	Prices in market school holiday market will be higher than in term time (1)	
	Reason for the different elasticities, e.g. market for holidays is more elastic during term time because people who do not have to go away in the school holidays have more **choice** or market for the holidays is less elastic during school holidays as children will be off school (1)	
	Annotation of diagram showing two marginal costs curves intersecting on school holiday market at output 150 (1); price at 500 (1); on term time at 200 (1); price at 400 (1). Accept a separate diagram showing up to three panels showing the equilibrium for the combined school holiday market and term time markets, up to 3 marks if fully and correctly annotated (3)	
	Reasons for why price discrimination can occur (1): any one reason, for example, no arbitrage, low cost of keeping markets separate, differing elasticities in submarkets can be enjoyed.	
	Example of knock out mark: it cannot be A as this shows marginal cost and marginal revenue only (1).	
		(3)

Question Number	Answer	Mark
6	Key: D	**(1)**
	Explanation: definition of collusion, e.g. firms work together, collaborate, agree on prices (1); explanation of price fixing, e.g. firms make an open or explicit attempt to work together (1); aim of collusion: to increase combined profits (1); collusion allows the firms to act as a monopolist (1); this might be shown in top left section of pay-off matrix (1+1);	
	application to context, e.g. prices will be fixed to make it more expensive for anyone wishing to gain the government contract (1);	
	illegal (1)	
	Example of knock out mark: it cannot be B because low barriers to entry would encourage other firms to enter at lower prices and compete away profits (1)	
	Example of knock out mark: not A because collusion implies revenues would stay at £1000 (1).	
		(3)

Question Number	Answer	Mark
7	Key: A	**(1)**
	Explanation that the firm faces lower manufacturing costs (1) and if demand is unchanged then supernormal profits will increase (1). Output will rise because the new equilibrium will involve a lower MC (1). Variable costs change means marginal costs change (1). Diagram showing increase in output at new MC=MR (1) with new profit area shown (1) **Change in variable costs** Costs Profit after fall in variable costs MC1 P1 P2 AC1 MC2 AC1 AC2 AC2 AR (Demand) MR Q1 Q2 Output (Q) • A fall in variable costs causes a downward shift in AC and MC • The profit maximizing output is higher, price falls, and profits rise Example of knock out mark: not B because variable costs and therefore marginal costs have changed, so there is a new, higher output (1)	
		(3)

Question Number	Answer	Mark
8	Key: E	**(1)**
	Definition or characteristic of perfect competition (1) and contrast with characteristic of monopoly, e.g. downward sloping demand curve (1). A take-over will make demand more inelastic/give firm the power to set price (1) Diagram up to 2 marks: to show increase in price (1) and reduction in output at new MC=MR (1) with new profit/loss area shown (1) Example of knock out mark: not A because monopolies can force up prices without losing sales (1) 	**(3)**

Question Number	Answer	Mark
9(a)	Theory (2) 2 marks theory: a fall in long run (1) average costs (1) falling/downward sloping LRAC diagram (1) Application (2): • high start up costs e.g. design costs • high sunk costs e.g. marketing costs • other legal barriers such as patents • collusive behaviour in evidence, e.g. copying rubberbanding • other pricing behaviour of firms, e.g. limit pricing • economies of scale/minimum efficient scale • lack of finance for small scale firms • information problems in Chinese market	**(4)**

Question Number	Answer	Mark
9(b)	KAA (4) Identification (1+1) Reasons why profits might fall (2) e.g. incomes rising more slowly may mean that demand does not rise as fast as costs; income elasticity of demand is very high because they form a large proportion of disposable income Diagram use (1+1): 1 mark for new MC=MR identified (an inward shift) 1 mark for new profit area. Evaluation (4): • recent growth problems in China 6.9% does not mean China has falling incomes, but rising more slowly • evidence that Apple products are highly resistant to slowing growth • Apple is still making efforts to enter the market, as a sign that profits are not likely to fall • Depends on magnitude of slowdown, fortunes of other firms (e.g problems with Samsung products) **Alternatively award increased profits (albeit more slowly) as KAA and decreased profits as evaluation, in the context of slowing growth rather than falling incomes.**	**(8)**

Question Number	Answer	Mark
9(c)*	KAA (6) award up to 3 points (2 marks each) or 3 + 3 **Reasons why the industry is contestable (this might count as KAA or Evaluation)** - Established firms are large and able to cross subsidise e.g. Samsung - existing firms are bringing out new versions of phones and other products e.g. Apple Watch, with other phone companies diversifying into this market in the future if the trends continue - evidence sales if iPhones are stagnating (Figure 2) (sign that firms are entering?). 'The only way is down' Extract 2. - Use of data to evidence the new firms that have started up/or that the existing phone firms have easily been able to diversify - Technological change can make entry easier e.g. flexible machinery **Do not award answers based on competitiveness rather than contestability** *KAA marks can be awarded for saying that the market is not contestable and then evaluating that it is.* Evaluation 8 marks e.g. 4 + 4 marks, 3 + 3 + 2, 2 + 2 + 2 + 2 This may take the form that the market is **not contestable.** - Established firms might have economies of scale - Profitability is high Ext. 1 lines 1-2 (sign that firms cannot enter and erode profits) - Patents keep new firms out (e.g. brand name) - The design element acts as a barrier to entry e.g. Ext. 2 rubberbanding - Start-up costs as a barrier to entry (especially due to the design costs) - Sunk costs e.g. marketing costs as a barrier to entry e.g. brand name 'Apple' - Potential for larger firms to use anti-competitive practices to keep newer firms out – collusion in the future - It depends if things change, e.g. vertical and horizontal mergers might lead to market concentration - Internet technology (selling online) evaluation e.g. knowledge still difficult to get, marketing still	

		expensive	
		• Technological change can make entry more difficult or exit more expensive e.g. sunk costs of machinery, or higher minimum efficient diagram	
		• Some actions illegal, and might lead to fines	
		• Problem of recession – may be necessary to cut price/see slower growth	
		• Staying the same size in a shrinking global market would mean higher market share	
		• Not enough evidence in extracts to form fair picture	
		• Extract 1 implies that conditions are likely to change soon, e.g China issue	
		• Perhaps Apple can do nothing as its popularity is already falling in China	

Price cutting can lead to retaliation, e.g. price war. Game theory could be used to develop strategies

(12)

Question Number	Answer	Mark
9(d)*	KAA 8 marks Award up to 4 points e.g. 4 + 4 marks, 3 + 3 + 2, 2 + 2 + 2 + 2 Difficulties for regulators might include: • Lower prices might be concealing high profits *but prices might be higher if firms abuse increased monopoly powers* • choice might be lowered if the range of products is reduced, fewer players in the market, fewer new ideas *but more choice as firms invest in new products knowing the concepts will be protected* • Patents can lead to x-inefficiency *but reduced competition allows for new innovation, R&D* • Difficult to monitor prices as new products and ideas keep coming onto the market *but Apple is clearly locking in consumers* • International markets difficult to regulate *but increased successful claims indicate some ability to cooperate* Evaluation (8) may take the form ease of regulation or of disadvantages/advantages of the points made for KAA. Award up to 4 points (2 marks each) or 3 + 3 + 2: • difficult to know what this impact will be, for example the US victory might not be translated around the world • game theory might be used to show that Apple's response would vary dependant on other players in the market • depends on what reserves Samsung has – might be able to withstand this easily, or develop new ideas or new markets • for people who have already bought the phones there might be no impact • long and short run effects on consumers. Candidates could use a diagrammatic explanation which could be incorporated in the scheme e.g. monopoly or consumer surplus diagram; the court decision may deter investment leading to lower quality in the long run • legal decision may be over-turned, or not upheld outside US • Comment on the magnitude of the fine, $1.05 bn, illustrates that regulation is able to bring up large/small fines	**(16)**

Question Number	Answer	Mark
10(a)	Theory (2): oligopoly (1). A few firms dominate (1) or other explanation, such as interdependence, high barriers to entry/exit, highly concentrated. Allow monopolistic competition if referring to the fact that there are still 8000 small independent retailers still in the market (1 for identification and 1 for explanation of the theory, e.g. many small sellers). Application (2): 5 firm concentration ratio (1) is 56% (1), or similar Cartels, collusion, price fixing evidence Extract 1 – 'price coordination, prices going up and down together (1) Prices kept higher when costs falling (1);price discrimination with supermarkets and other retailers (1) Morrisons offering loyalty points – or other non-price competition (1) reduced number of sites implying some firms dominating (1) 'unfair pricing' (1); there are still 8000 small independent retailers – must be related to monopolistic competition (1) supermarkets have 45% of market. *There is scope for a monopolistic competition answer, with 8000 independent retailers, with differentiation of product and local brand loyalties, but this would have to be identified correctly. Do not award this answer from Extract 1 evidence. Do not award 'perfect competition'.*	**(4)**

Question Number	Answer	Mark
10(b)	KAA (4) 1 mark definition of **efficiency** (might be implicit) – lower costs per unit, or allocative efficiency, x-inefficiency etc. This might be shown on a diagram, for example by the minimum point on an AC curve (productive efficiency) or P=MC (allocative efficiency). Award application marks for reasons from data for using national price, e.g. supermarket alleged 'price fixing', oil companies using price discrimination or 'dual pricing' Efficiency might change owing to: • Direct controls could act as a surrogate for competition • Some firms are forced to cut prices, or reduce x-inefficiency • Some retailers might increase supply • Prevention of monopoly pricing • Change in incentives, e.g. firms will not want to invest/expand • Impact on costs for firms/cost push inflation • Reduced need for regulation, and the costs and problems of investigations • Reduced 'shoe leather costs' as people do not have to shop around for fuel	

	Allow answers based on the wholesale market for fuel, for example with reference to dual pricing by the major oil companies (Extract 2). Evaluation (2): 2 x 2 marks or 3+1 or 4+0 *This could take the form of disadvantages of a national pricing scheme if advantages given for KAA, or vice versa.* • Some consumers would pay a lower price if there were variable prices, e.g. non-London • Difficulty of enforcement • Loss of price competition might mean prices do not fall as much as they could where competition is effective • Regulatory failures, e.g. uniform price set at a level that is too high/low • Argument on the impact on incentives e.g. new firms could enter the market • Loss of quality of service as market becomes more aggressive	**(8)**

Question Number	Answer	Mark
10(c)*	KAA (6) award up to 3 points (2 marks each) or 3 + 3 Diagram (2) • Output and price correctly linked to MC=MR (1) • Loss area. It may be a declining profit. AR<AC or AR<AVC for loss, and AR>AC but shrinking (1) Other KAA (4): Award **up to two** reasons (costs rise, revenue falling (1) with data/explanation rising costs of fuel (1); increasingly price elastic demand for petrol in recession (1); supermarkets have lower costs or can cross subsidise from food sales (1); dual pricing in Extract 2 (1) Evaluation (6): 2+2+2 or 4+2 or 3+3. Points might include: • Not enough data. Other factors might be at work • The small firms may be forced to diversify (may refer to coffee in Extract 1) or they may be given a cut in business rates to lower costs in order to reverse the trend • Hard to tell if it is going to continue • Retailers suffering duty to high tax on petrol, not competition (Extract 1) • Other effects might outweigh or exacerbate losses • Advantages a small firm might have in the long run • Competition authorities may act (loss of consumer choice if the small firms close, risk of dominant oil retailer/supermarkets) • Independent firms might merge rather than leave the industry • Things may change as recession ends Taxes not rising since 2010 (fuel escalator cancelled)	**12)**

Question Number	Answer	Mark

10(d)*	KAA (8) 2 + 2 + 2 + 2 or fewer points up to four marks each
	
	Strategies must be linked to 'increasing **profit**'. If not linked to profit, award identification mark only per factor.
	
	The strategies/development of game theory might include:
	
	• Pricing strategies – must be related to increased profit e.g. cut price, e.g. limit pricing, predatory pricing, sales max, rev max. These can count as more than one factor
	• Price competition, e.g. price wars, if linked to revenue
	• Improve quality, sales service, if linked to revenue
	• and other non-price competition, e.g. advertising, reinforcing brand, packaging, BOGOF, free gifts in petrol stations
	• Mergers and acquisitions
	• Award use of game theory to illustrate problems of increasing revenue/market share in oligopoly might involve discussion of interdependence, undercutting, kinked demand curve etc.
	• Other use of strategies mentioned in the question paper.
	
	Diagrammatic analysis could be included and rewarded.
	
	Evaluation (8):
	2 + 2 + 2 + 2 or fewer points up to four marks each
	    Some policies better than others in context of recession. It might not be possible to increase profits in the context
	
	    Unpredictability in oligopolies – game theory might be used to support this argument
	
	• Illegality of some policies, e.g. predatory pricing
	
	• Unstable outcomes/lack of information
	
	• Discussion of short run vs long run profitability
	
	• Difference between supermarkets and other petrol retailers. Different sectors will have very different strategies.
		(16)