

Mark Scheme (Results)

Summer 2013

GCE Economics (6EC03/01)



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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.

Maximum mark for explanation is 2/3 if key is incorrect (that is 2/4 in total) for supported choice questions.

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	Answer	Mark
Number		-
1	D Definition of <i>monopoly power</i> (not monopoly alone): firm has power to set prices or output/ firm is a price setter or price maker (1);	
	Explanation of sales max: selling as much as possible without making a loss (1); where AR = AC (1); or maximising sales subject to the <i>constraint</i> of making AR=AC (normal profit) (1);	
	Explanation: explanation of normal profit, e.g. just enough profit to keep resources/firms in their current use (1); market share increased at expense of competitors (1); a lower price means that more is demanded (1);	
	Reasons for this objective: to remove competition (1); limit pricing (1); long run profit maximisation by removing competition or gaining loyalty (1);	
	Diagram showing fall in price and/or higher output (1) at AC=AR (award AC=AR point only if not defined or otherwise used in answer) (1);	
	AZ prod prod prod prod AZ prod HZ prod HZ prod HZ prod HZ prod AR 1 mz O ^{mm} prod AR 1 mz Color O ^{mm} prod AR 1 mz Color O ^{mm} prod AR	(4)
	Examples of knock-out mark:	
	It is not a because the firm is cutting prices to prevent new firms	
	benefits	
	It is not C because this option ignores costs, but costs must be	
	taken into account for normal profit AR=AC.	

Question Number	Answer	Mark
2	E	
	Definition of diseconomies of scale/economies of scale, involving falling <i>long run</i> average costs as output decreases/increases (1);	
	Observation that this is a divestment/demerger (1);	
	Explanation: reasons why a larger firm might have increased costs, e.g. communication problems, lack of co-ordination; differences in methods of organisation or IT systems, lack of crossover (1+1); allow another reasons for demerger, e.g. to raise funds, to focus on core business, too much exposure to one market, need to reduce costs (1);	
	Effects of selling off BMI, e.g. rationalisation, more efficient production (1);	
	Application marks: there might be a cut in overlapping routes, more efficient use of marketing just one brand (1);	
	Diagram showing falling costs as output falls, for example: (1)	
	LRAC	
	0^{\prime} $0_{2} \leftarrow Q^{\prime}$, output	
	Example of a knock out: not D as there will be more firms in the industry if firms break up	(4)

Answer	Mark
A Definition of marginal revenue (1); Diagram marks or equivalent verbal analysis: annotation of diagram or separate diagram showing parabola shaped TR (1); MR crossing horizontal axis where TR reaches the maximum (1) or at output 500 (or close) (1); relationship between AR(=D) and MR, e.g. if the demand curve is downward sloping the MR curve will be below it and steeper (1); relationship between MR and TR, e.g. if MR>0 then TR is rising (1); relationship between AR and/or MR and price elasticity of demand (PED) e.g. if PED is elastic MR is positive (1); if PED is inelastic MR will be negative (1); Application mark: revenue rising from £2400 at output 400 to £2500 at output 500 (1); £5 is revenue maximising (1) Example of knock out mark: it is not E because there is no	
consideration of any costs. Example of knock out mark: it is not B because there is no indication that the firm is operating at 500 units.	(4)
	Answer A Definition of marginal revenue (1); Diagram marks or equivalent verbal analysis: annotation of diagram or separate diagram showing parabola shaped TR (1); MR crossing horizontal axis where TR reaches the maximum (1) or at output 500 (or close) (1); relationship between AR(=D) and MR, e.g. if the demand curve is downward sloping the MR curve will be below it and steeper (1); relationship between MR and TR, e.g. if MR>0 then TR is rising (1); relationship between AR and/or MR and price elasticity of demand (PED) e.g. if PED is elastic MR is positive (1); if PED is inelastic MR will be negative (1); Application mark: revenue rising from £2400 at output 400 to £2500 at output 500 (1); £5 is revenue maximising (1) Example of knock out mark: it is not E because there is no consideration of any costs. Example of knock out mark: it is not B because there is no indication that the firm is operating at 500 units.

Question	Answer	Mark
Number		
4	E	
	Definition: rent is a fixed cost, or, definition of fixed costs, e.g. do not change with output (1);	
	Explanation: because there is a change in fixed costs there is no impact on marginal cost (1); if marginal costs do not change and marginal revenue stays the same then there is no change in equilibrium price and output (1);	
	Diagram showing increase in average variable costs (AVC) or average total costs (AC)(1) with the same price and the same output coinciding with the same MC=MR (1)	
	Diagram can earn 3 marks if each point is clearly spelt out: AC rises (1) reducing the profit area as long as MC has not shifted (1) but price is unchanged as long as MC is not shifted (1) (Max. 1 mark for diagram if MC has shifted)	
	$\frac{r_{r}}{r_{r}} = \frac{r_{r}}{r_{r}} + \frac{r_{r}}{r$	
	Award equivalent verbal analysis, e.g. if costs rise then profits fall (1);	
	Example of knock out mark: it cannot be A or B because if costs rise then profits will fall (but do not double award this analysis if it has already been awarded as verbal or diagrammatic analysis, e.g. lower profit area) (1).	(4)

Question	Answer	Mark
Number		
5	B Definition of x-inefficiency, e.g. when lack of competition means that costs are higher than they would be with competition (1); examples of x inefficient behaviour: satisficing profits	
	organisational slack, rising average costs of labour as wages rise or over-manning, laziness, complexity, management with other aims such as luxury cars (1+1);	
	Explanation of patents , e.g. legal barriers which prevent copying of names or concepts by rival firms these act as a barrier to entry (1) meaning that new firms cannot enter/force existing firms to cut their prices or costs - there is no need for existing firms to cut costs (1);	
	Reasons why x-inefficiency exists: firms can become a monopoly, firms gain market power (1+1);	
	Diagram showing two average costs curves, one AC higher than they would other be when x-efficient, or a point above AC (1);	
	Example of knock out mark: it cannot be C as barriers to entry will be high (1).	(4)

Question	Answer	Mark
Number		
6	Α	
	Definition of productive efficiency, e.g. lowest point on the average cost (AC) curve, or MC=AC (1);	
	MC=MR is profit maximisation (1);	
	Explanation: firm is operating under monopolistic competition (1) in the long run (1); other characteristic of monopolistic competition (note this must be consistent with the model, and not be a defining characteristic of monopoly) e.g. similar but differentiated products, a large number of small firms, low barriers to entry or exit (1);	
	There are only normal profits in the long run diagram shown, or AR=AC means there are no supernormal profits (1) prices cannot fall any lower because costs are not as productively efficient as possible (1);	
	Annotation of diagram, e.g. to show productive efficiency at the lowest point of AC (1);	
	Example of knock out mark: it cannot be B because the firm is making normal profits (1) (if this has not been awarded as part of the analysis).	
	Example of knock out mark: not D because the AR and MR are downward sloping (1).	(4)

Question Number	Answer	Mark				
7	E					
	Definition of consumer surplus (1);					
	A fall in price makes the area of consumer surplus larger (1); Explanation of role of Ofwat, or regulators in general (1); function of fine as a deterrent (1); explanation of how a price cap works e.g. firm will have to reduce planned charges so that it can no longer earn the monopoly profits (1);					
	Explanation of a <i>local</i> monopoly, e.g. that the firm has a very high degree of market power within a geographical region (1); application that consumers in the Midlands can only buy water from Severn Trent (1);					
	Diagram: shading of area of original consumer surplus (this can count as the definition if not already awarded) (1); new area of consumer surplus, or change in consumer surplus e.g. ACED with comparison with a profit maximising output where MC=MR (1);					
	Price B					
	PA					
	D-F					
	AR or demand					
	Output					
	Allow other versions of this diagram, involving AR/MR and AC/MC, or demand and consumer surplus in style of Unit 1 paper. Diagram may show fall in price and increase in output as a result of intervention (1) and change in consumer surplus (1).					
	Example of knock out mark: not D because shareholders would be likely to receive smaller dividends.	(4)				

Question	Answer	Mark	
8	D		
8	 Characteristic of perfect competition, e.g. no barriers to entry/exit, AR=MR, many firms all selling exactly the same product (1); Explanation: firms leave because the price is below AVC or AC or shut down point (1); barriers to entry/exit are low making it easy to leave (1); which makes the industry price rise (1) normal profits is the level at which firms will stop leaving (1); Diagram can earn up to the maximum 3 marks: horizontal AR=MR (as characteristic of perfect competition - do not award this in addition to any perfect competition definition/characteristic in text)(1), firms leaving (1) loss area (1); long run perfect competitive firm equilibrium diagram is a 40 at temperated AD (1) 		
	This diagram shows horizontal AR=MR and the loss area on the right hand side, and the supply shift to the left on the left hand side shows firms leaving:		
	$\frac{inburstely}{Price} = \frac{5^{1}}{2} \frac{5}{2} \frac{1}{2} \frac$		
	Example of knock out mark: not A because perfectly competitive firms are price takers so cannot cut prices.	(4)	

Question	Answer	Mark
9(a)	Ineory (2) Monopsony (1), explanation, e.g., single buyer or powerful	
	buyer dominates the market (1). Seller has to accept low prices (1).	
	Purchasing economies of scale (1). Pressure on sellers	
	promis/viability (1).	
	[Award relevant mononsony diagram e.g. showing low prices	
	relative to marginal cost although this is not required 1	
	Application (2) as (1+1 or 2): Buyers force down prices (award lower	
	prices for theory or application but do not double award) (1); farmers	
	cannot cover costs/make a loss (1); buying power 70% of market	
	(1); there are many egg farmers with small holdings in Extract 1 (1);	
	Noble Foods acts as a powerful firm (1); Noble Foods' profits are	
	increasing (1); there are no effective substitutes for famers to sell to	
	(1); many farms are being shut down (Extract 1); 750 000 hens	(4)
	slaughtered (Extract 1).	(4)

Question	Answer	Mark
Number		
9(b)	KAA (4)	
	Explanation (2):	
	 1 mark for costs are rising/price not rising 	
	• 1 mark for application or reason from data in Extract 1. Examples of application marks: costs of eggs are rising because of new regulations. Price is not rising because egg distributors such as Noble, or supermarkets will not pay higher prices, or prices are being cut.	
	Diagram (2) This can be a costs shift or a revenue shift, or static diagram (no shift).	
	 MC=MR equilibrium connected with price (1) 	
	• Loss area (or lower profit area) 1	
	 Evaluation (4): Depends on the proportion of egg cost relative to other production costs If price>AVC the firms will stay in business in the short run even though it is making a loss Rising costs could be offset by falling costs elsewhere Free range egg producers will not get a rise in costs How long is the long run Some egg consumers are loyal to farmers so could withstand a rise in price Higher prices are good for the final consumers if quality improves (e.g. eggs taste nicer from happier hens) Sense that the problem is made worse by other factors. E.g. if there has been a cost rise AND a fall in revenue 	

	then these make it a bigger problem	(8)
Question	Answor	Mark
Number	Answei	IVIAI K
9(c)*	KAA (6)	
	award up to 3 points (2 marks each) or 3 + 3	
	Identification of types of egg consumers from Figure 2, e.g.	
	toodservice. There must be specific reference to types of consumers,	
	any use of data (1)	
	award up to 3 points (2 + 2 + 2) or (3 + 3):	
	Consumers: Better quality eggs	
	 Consumers know that hens are not ill-treated - increase in 'consumer welfare' 	
	 Reward candidates who offer a standard answer of rising costs and prices 	
	 Consumers might have less choice of food as food 	
	producers avoid eggs	
	 Food processors/manufacturers using eggs may go out of 	
	business, reduce quality or range of products, or see	
	profits fall, as they are unable to raise prices to	
	supermarkets (Ext 4). Prices of food might rise in the	
	10119 Fun.	
	 possibility of imported eggs from countries outside the E0 Ecodservice users such as bed and breakfast suppliers 	
	may have to raise prices and reduce output.	
	Allow answers based on EU regulation in general, apart from the hen	
	cage regulation in passage.	
	If no reference to egg consumers in Figure 2 then cap KAA at 5/6	
	Evaluation (6) award up to 3 points (2 marks each) or 3 + 3:	
	 Consumers may not see much change as eggs are a small 	
	proportion of household expenditure. The effect is	
	minimal.	
	 Many consumers already buy eggs that conform to the EU 	
	wenare standards, e.g. 44% free range Pocause of the monopsony power of supermarkets acc	
	 Decause of the monopsony power of supermarkets egg prices are unlikely to rise significantly so the impact on 	
	consumers of the new regulation are likely to be minimal	
	• Eggs might not look/taste any different but the quality	
	might be perceived as being better, e.g. through	
	effective marketing	
	• Farms might cut cost in other areas (e.g. cheaper quality	
	hen feed) so quality for consumer might decline	
	• Investment in cages is a short run, sunk cost.	
	 Depends on the proportion of egg cost in food 	

•	manufacture, and the cost of other ingredients might fall Depends on proportion of costs in foodservice – in high end hotels the cost of an egg is likely to be a small proportion of overall costs	(12)
•	the degree to which they might be used to substitute EU eggs	
•	Hard to measure the impact on consumers of happier hens	
•	Allow arguments concerning regulatory failure.	

Question	Answer	Mark
19(d)*	$K\Delta\Delta$ (8) 2 + 2 + 2 + 2 or fewer points up to four marks each	
7(u)		
	2 marks for correct pay off matrix, if correct and applied.	
	Reasons might include:	
	 Monopsony power of supermarkets, squeezing suppliers to 	
	retain their own margins	
	Need to keep prices low for customers in time of low incomes	
	nignly competitive markets bigh price cleaticity of demond	
	Ingri price elasticity of demand Price leadership (collucion	
	 Frice reductship/condition Sticky prices/kinked demand analysis and possibly the 	
	discontinuous MR curve to illustrate why supermarkets are	
	not raising their prices	
	• to maintain market share	
	 Eggs might be cross-subsidising other products in the 	
	supermarket such as loss leading milk	
	• Allow arguments based on pricing strategies, e.g. limit	
	pricing/predatory pricing, where cutting prices might be seen	
	Allow other non-pricing strategy reasons (non-price	
	competition' such as branding advertising e.g. The Happy	
	Eggs company	
	If no game theory used award a maximum of 6/8 marks	
	Evaluation (0), $2 + 2 + 2$ or fower points up to four marks each	
	Depends on the degree of monopsony power	
	Depends on the degree of monopsony power Difficult to assess the strength of monopsony power	
	 It may be a matter of time before the higher egg prices feed 	
	through to consumers.	
	• This might be explained with MC shifting out of the range of	
	indeterminacy on the kinked demand model	
	 The increase in cost are short term (£14 per hen) 	
	 Increased price might be outweighed by falling costs 	
	elsewhere.	
	• Prices of eggs might rise as some producers leave the industry	
	• Eggs are a small percentage of consumer costs/rood producer	
	 eggs have no close substitutes 	
	 collusion is illegal/risk of fines 	
	• Depends on the egg type as to how loyal the customers are	
	(free range etc.)	
	 Consideration of non-price strategies as an alternative to 	
	price changes	(16)
	• Other elasticity arguments, e.g. can firms change the PED of	()
	eggs in the future	

Question	Answer	Mark
Number		
10(a)	Theory (2): Oligopoly (1). A few firms dominate (1) or other explanation,	
	such as interdependence, high barriers to entry/exit, highly concentrated	
	Application (2), (firm concentration ratio (CD) is 0.0% (2 marks), or Dia	
	Application (2): 6 firm concentration ratio (CR) is 99% (2 marks); of Big Six have 00% (1 mark)	
	SIX Have 99% (1 Hidtk), Other types of application (1, 1): high harriers to entry (exit are applied	
	e a cost of setting up customer network strong brand names. Big Six	
	control 99% of market other specific evidence of collusion, high profits	
	as evidence of barriers to entry small firms find it hard to enter the	
	market SSE cut prices 4.5% and BG will follow price fixing of tariffs	
	f15bn combined profit, existence of regulator. BG supplies half of UK	
	households, list of the six biggest firms	(4)
	55	.,
Question	Answer	Mark
Number		
10(b)	KAA (4) Costs of gas and electricity have not risen as fast/fallen more	
	quickly than the price charged to customers; global demand has risen,	
	cartel, collusion meaning prices rise to consumers.	
	Award one reason only - costs not rising (or efficiency gains) or revenue	
	(demand) increasing(1) · application to energy market (1)	
	(actuality) meredesing(i); approaction to energy market (i)	
	Diagram (2) This can be either cost or revenue changes, or both. There	
	must be a shift.	
	• 1 mark for correct shift (AC and MC if variable cost falling, AC	
	if fixed cost falling, AR and MR rising if demand)	
	• 1 mark for profit area. It must be a profit, linked to MC=MR.	
	Evaluation (4): 2: 2 or 4:0 Points might include:	
	Commont magnitude of profits	
	Comment magnitude of profits Depends on size of shifts	
	 Depends on size or sinits Drofits might fall in future 	
	• Contrast botwoon gas and electricity prices	
	 Culturast between yas and electricity prices Difficulty of making conclusions from data provided 	
	Difficulty of making conclusions from data provided The apparent collusion might just be the way that	
	Ine apparent conusion might just be the way that	
	Uligopolistic markets work The market may be regulated more in future	
	• The market may be regulated more in future	(8)

Question	Answer	Mark
Number		
10(c)*	KAA (6)	
	award up to 3 points (2 marks each) or 3 + 3	
	1 mark definition of tacit collusion. Implied, silent, unspoken, no	
	communication. Saving 'secret' is not enough (this is covert collusion).	
	1 mark for role of regulator	
	i mark for fore of fogalator	
	Application: evidence of possible tacit collusion might include: consumer	
	bills double simultaneously, prices rise and fall within weeks of each	
	other, difficult to prove (1+1)	
	Answer must be based on tacit collusion (collaboration is implicit) e.g.	
	<i>implied, unspoken, quiet, unsaid</i> collaboration otherwise cap at 5/6	
	KAA marks.	
	Problems regulators might face 3 x 2 marks or 2+2+2	
	Hard to find evidence	
	Lack of spoken or written evidence	
	Regulatory capture	
	Conflicting or asymmetric information	
	• Complex information, e.g. The involvement of supermarkets	
	and joint supply of gas and electricity makes comparisons	
	more difficult.	
	• The complexity of the tariffs in particular make it very hard	
	to compare different providers	
	• Conflicting evidence - e.g. it might be markets forces or	
	collusion in an oligopoly	
	• Fear of fines or other control mean that there is strong	
	incentive to conceal collusion. This might be developed using	
	game theory and/or kinked demand theory	
	Lack of regulator power	
	Lack of regulator resources	
	• Time/admin costs of regulation	
	Regulatory lag	
	• Firms will not respond to regulator - unlikely to whistleblow	
	Consumers are not aware of the problem and do not complain	
	much or understand they have been 'ripped off'	
	• The amount of evidence needed to prove the case may be	
	huge	
	inge	

Many firms have foreign ownership - may be an EU regulator	
issue May be a conflict between regulatory authorities	
issue. May be a commet between regulatory authorities.	
Evaluation (6): 3 x 2 marks or 2+2+2	
 There is a lot of evidence to prove tacit collusion, e.g. 	
sudden price changes	
Magnitude of problem of detecting collusion/monopoly power	
Maybe tacit collusion does not exist and energy companies	
are simply following global wholesale prices	
 Impact of changing exchange rates on costs 	
 Energy prices are only sticky in a downward direction not in 	
an upward direction.	
The relative size of the resources available to regulators	
compared to 'Big Six' energy companies determines the	
balance of power.	
 No need for collusion where barriers to entry are so high. 	
 Pricing strategies discussion, e.g. some are illegal and some 	(12)
are not	(12)
 Tariffs have been simplified - it will be easier to prove from 	
now on	
• Size of fines/penalties - jail terms and fines of 10% are a	
strong deterrent (or not)	
 Internet has made comparisons more easy, e.g. U-Switch 	
 Supermarkets have now entered the market, which can mean 	
non-price competition points become more important, e.g.	
loyalty points	
Game theory may be used to discuss benefits of	
whistleblowing	
 Collusion is not a problem to investigate - it is easy to see. 	

Question	Answer	Mark
10(d)*	KAA (8) 2 + 2 + 2 + 2 or fewer points up to four marks each	
	Allow reasons for and against competition or regulation either as KAA or evaluation, depending on the structure of the argument presented.	
	 Industrial against competition of regulation enter as torrel evaluation, depending on the structure of the argument presented. The case for competition rather than price caps might include (free market argument rather than government intervention): Breaking up the size of energy suppliers will lead to price cuts (impact on competition) Impact of competition on efficiency (this could count as several points) Encourages more firms to enter energy market (benefits of deregulation) Benefits of market forces as allowing incentives to invest or innovate Impact on consumer surplus/consumer welfare Reduced profits might lead to lower levels of investment in infrastructure or other kinds of investment Look at global competition rather than just domestic Problems of price controls e.g. price cap may be difficult to maintain in the long run because of the above inflation rises of wholesale energy prices, or firms will raise prices up to price caps and not be any more efficient than that. Diagrammatic analysis could be included and rewarded. 	
	 Benefits of price caps as a surrogate or substitute for competition e.g. in providing incentives to increase efficiency Discussion of length of term of price cap, and other problems of RPI-X Examination of vertical integration in the energy market High barriers to entry/sunk costs means that competition will not work Competition leads to loss of economies of scale; prices might rise not fall Discussion of which controls might be the most effective, in the light of the information provided Discussion of other forms of intervention governments could use, e.g. tax on profits, fines, performance targets. Could count as several factors. 	

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