Mark Scheme (Results)

June 2015

GCE Economics (6EC03/01)

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

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

Maximum score: if an incorrect key has been chosen, the maximum score is 2 out of 4.
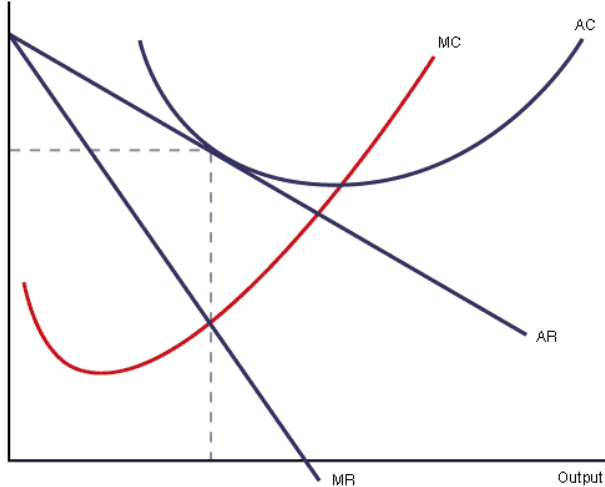
Knocking out incorrect options:

Incorrect options can be knocked out, if relevant economic reasoning is given, for 1 mark each time. Up to two knock out marks can be awarded for each supported choice question. If more than one key is knocked out for the same reason this will earn one mark only.

Knock out marks are **not** awarded if the reasoning is that 'it's not A because it is B' – there must be some valid *economics rationale* to the answer in order to earn a mark.

Question Number	Mark scheme	Mark
1	Key: E	1
	Definition of market share or high market share (1)	3
	Explanation of a demerger beyond 'form two separate companies' (as this is in the question), for example, break up of monopoly, reduce dominance in market (1)	
	Reasons for competition authorities to act/firms may have been exploiting their high market power (hence the need to break them up) (1+1) e.g. to reduce monopoly power, increase contestability, to increase choice, lower prices, reduce inefficiency/x-inefficiency, diseconomies of scale	
	Application to data (1) e.g. Lloyds will compete on the High St with TSB to offer lower prices/better service	
	Role of competition authorities (1) e.g. to protect the consumer, promote competition, act as a surrogate for competition	
	Example of knock out marks:	
	It is not A because a rise in LRAC (diseconomies of scale) is an issue the bank might want to address because of falling profits, but it is not likely to have a damaging effect on the consumer so intervention unnecessary (1)	

Question Number	Mark scheme	Mark
2	Key: B	1
	Definition of barrier to entry (1) e.g. an obstacle used to prevent new firms entering an industry	3
	Outline of how **predatory** pricing works (1) e.g. by making short term **losses** to force out firms	
	Concept of predatory or limit pricing can apply to barriers to entry and **keeping competition out** (1)	
	Firm makes a **loss** (1) which might be shown on a diagram (AR>AC over a quantity)	
	Other diagram marks: allow limit pricing if firm is pricing below AC of *other* firms (1)	
	Long run benefits or costs to firm (1) e.g. low prices prevent new firms from entering, higher profits for firms	
	Illegal or anti-competitive (1)	
	Example of knock out marks:	
	It is not C because a cartel is when firms act together as if they were one firm, and this would mean they do not have to undercut other firms	

Question Number	Mark scheme	Mark
3	Key: D	1
	Definition of average revenue (1) e.g. TR/Q or demand or price	3
	Characteristic of perfect competition (1) e.g. many firms, no firm has market power, identical products	
	The firm is a **price taker** (unless awarded above) (1)	
	Perfectly elastic, horizontal or constant demand (unless awarded above) (1)	
	Diagram showing total revenue (diagonal straight line passing through the origin) (1) or market diagram S and D determining price for an individual firm (1)	
	Example of knock out marks: It is not A because this shows the shape of the total revenue for a price making firm (1)	

Question Number	Mark scheme	Mark
4	Key: D	1
	Definition or characteristics of monopolistic competition (1) *e.g. low or no barriers to entry or exit, slightly differentiated products, non-homogenous*	3
	Function of supernormal profits in terms of entry (1) e.g. profits attract new entrants	
	Normal profits are made in the **long run** (1) e.g. supernormal profits are eroded or competed away	
	Application to context (1) e.g. shoe repair services are very cheap to set up and very little equipment or training is required	
	Explanation that **normal profits** are where AR=AC or TC=TR or 'just enough profits to keep resources in their current use' (1).	
	Diagram showing AC=AR (1) (if not awarded above as a written definition of normal profits), where MC=MR and AR is downward sloping (1):	
	Revenue or costs (£)	
	Also award normal profit as TC=TR (verbal or on TR/TC diagram).	
	Example of knock out marks: It is not C because in the short run, before other firms can enter or leave the industry, supernormal profits (or losses) can be made (1)	

Question Number	Mark scheme	Mark
5	Key: B	1
	Explanation: Market share defined (1) e.g. the proportion of the sales relative to other firms	3
	Identification of first mover **dis**advantage (1) e.g. because Microsoft moves first it is at a disadvantage	
	Undercutting prices as a way to increase sales (1)	
	The goods are fairly close **substitutes** (1)	
	Firms are **interdependent** (1)	
	Pay off matrix (up to 2 marks) e.g. showing Sony benefitting from lower price (top right box) (1) Microsoft and Sony worse off (bottom right box) in long run equilibrium (1)	

Game theory 2x2 matrix

Sony

	High Price	Low price
High price	A Each gets £100m	B Sony gets £120m Microsoft gets £50m
Low price	C Sony gets £50m Microsoft gets £120m	D Each gets £80m

Microsoft

This is why Sony undercut Microsoft. Higher revenue and higher market share (1 mark).

This is the long run equilibrium (1 mark).

Example of knock out marks:

It's not C because demand is relatively elastic in the short term, or the firm would lose revenue (1)

It's not D because if they were colluding they would have sold at the same price

Question Number	Mark scheme	Mark
6	Key: D	1
	Definition or formula for concentration ratio (1) e.g. the largest 4 firms have x% of market power	3
	It is an **oligopoly** (1)	
	Highly concentrated (1) e.g. a figure above 50% would indicate strong power	
	Explanation of market power (1) e.g. firms can influence market price without losing a high proportion of sales	
	Relation or application to industry (1) e.g. there are reasons why **car** industry might be hard to operate in a more competitive scenario **or** 81.2% (within 1% range) of breakfast **cereal** market served by 4 main firms	
	The implications of the market power (1) e.g. higher prices, the firms might collude	
	Example of knock out marks:	
	It is not B because food retailers have high sunk costs in establishing trusted brand names	

Question Number	Mark scheme	Mark
7	Key: A	1
	Revenue definition (1) e.g. money is coming into the firm, PxQ, turnover, value of sales Identification that this is **price discrimination** (1) Application to context (1) e.g. the senior citizen has a higher PED and is therefore not prepared to pay as much, or there are customers who have different elasticities because they have more free time Higher prices where demand is relatively inelastic on diagram or verbally (1) (see below left diagram, MR is not needed for the mark) Lower prices where demand is relatively elastic (1) (see below right diagram, MR is not needed for the mark) Main conditions for price discrimination (1) e.g. low or no arbitrage, separate sub markets with different elasticities *Example of knock out marks:* *It is not C because arbitrage makes price discrimination impossible*	3

Question Number	Mark scheme	Mark
8	Key: A	1
	Definition of performance targets (1) e.g. a level of quality of service that must be met or the firm will be fined, goal for a firm set for the firm, standard of service expectation, objective set for the firm

Function of performance targets (1) e.g. they act as a surrogate for competition, or an incentive to become efficient because there is no competition, or to improve customer service

Reasons why the **fine** was needed (1) e.g. x-inefficiency arising from lack of competition /monopoly power reducing incentives restores motivation/deterrent

Impact of the fine (1) e.g. acts as a warning to other firms to meet their performance targets

Application or example (1) e.g. punctuality of trains is 87% or intended to be 92%, or 5 percentage points below target

Problems of efficiency in monopoly identified in diagram (1) e.g. AC rising for x-inefficiency

Role of the regulator/ORR (1) e.g. surrogate for competition, promote consumer interests (not increase competition in this case)

Example of knock out marks:

Not D because a performance target is likely to decrease profits because costs rise | 3 |

Question Number	Mark scheme	Mark
9a	**Theory (2)**: Horizontal integration (1) with firms merging at the same stage of a production process or same product or firms are making the same type of product (1) increasing market share (1)

Application (2) Chinese firms merging reduced the number of firms (1) from 200 to 50 (1); the firms are all producing baby milk powder (1); Inner Mongolia Industrial Group and China Mengniu Dairy supported in their merger (1); 30bn yuan or $4.9bn (1); increased ability of Chinese firms to compete with/drive away international rivals (1)

NB if the answer is 'vertical integration' then award no marks for theory, but application can still be relevant, e.g. government supporting baby milk suppliers | 4 |

Question Number	Mark scheme	Mark
9b	KAA 2 marks + 2 marks reserved for diagram Subsidy defined (1) and explained (1): the subsidy is given to the firms, which implies costs are effectively reduced Effect on profits: they will increase (1) Diagram 2 marks: • 1 mark for **shift** linked to new output (MC=MR). See below at * for shifts allowed. • 1 mark for **larger profit** or **smaller loss area**, and cost and revenue curves. *The new/final area must be shown.* *MC and AC shift (implied subsidy per unit of milk) if it is made clear that variable costs are falling *with link to the new output* or *AC shift (if just a lump sum to each producer) if it is made clear that fixed costs are falling *with link to the new output* Allow TR/TC diagrams also with TC shift down and increased distance between TR and TC. [AR and MR shift outwards **only** if subsidy is given to consumers that is, a consumption subsidy e.g. vouchers given to parents - although not implied in the data] Evaluation (4) Award as 2+2 or 3+1 or 4+0 marks. Factors might include: • consideration of the limitations of subsidies e.g. opportunity cost, x-inefficiency • long run benefits e.g. economies of scale • subsidies are for mergers (Extract 3) and these might have increased costs, e.g. diseconomies of	8

scale
- Chinese firms cannot overcome the brand loyalty to foreign brands- so no guarantee of increased sales for domestic firms
- depends on the size and duration of the subsidy e.g. 30 billion yuan
- depends on whether or not the subsidy is passed onto consumers in terms of lower prices or kept within firm to develop products or for shareholders benefit e.g. the PED of consumers is low
- subsidy is small in relation to costs of firms – not enough information to say for certain
- profits are still dependent on belief in Chinese firms and effectiveness of international brand loyalty
- is the subsidy linked to output? This might question whether the subsidy shifts MC and AC or just AC.

Question Number	Mark scheme	Mark
9c	KAA 6 marks 3 x 2 marks or 2 x 3 marks Definition of price-fixing/collusion/anti-competitive behaviour (1) e.g. holding prices above competitive prices Example of anti-competitive behaviour (1) e.g. £30 per tin of milk in China compared to £10 in Britain Reasons why this behaviour might occur might include: • High market share of Wyeth and Nestlé, or 5 brands cover 60% of the market, so easy to maintain prices, or powerful brand names • Low PED because of safety concerns for babies • Weak competition authorities e.g. governments might focus on other issues, regulatory capture as the Chinese government gains large tax revenues/foreign funds • XED of domestic products, lack of substitutes domestically • Firms can communicate well/trust each other so they can collude easily. Game theory might be used.	12

Evaluation 6 marks 3 x 2 marks or 2 x 3 marks

This might be points that anti-competitive behaviour is difficult, or other evaluation points.

- 5 international firms is a high figure if trying to coordinate collusion/60% market share is not enough to fix prices
- PED is not so inelastic, e.g. black market in formula milk
- Tacit collusion may be occurring (hard to prove)
- Risks of whistleblowing e.g. game theory might be used to show it might or might not be worth colluding
- Problems of colluding e.g. game theory might be used to show there could be a breakdown of trust in the long run
- Degree of regulation, e.g. regulators are getting stronger, consideration of the size of fine £71m, increasing role of the NDRC gains power
- Might be a kinked demand curve so not actually collusion/price fixing e.g. Ext. 1 James Roy says it was unlikely it was 'real price fixing'
- Discussion of changes in Chinese market or government decisions over time e.g. if new Chinese competitors enter the market their reputation or quality might improve, or undercut international prices
- Discussion of collusion criteria that do not hold e.g. low barriers to entry

Question Number	Mark scheme	Mark
9d	KAA 8 marks e.g. 4 + 4 marks, 3 + 3 + 2, 2 + 2 + 2 + 2 **Link to price or availability of high quality milk must be given.** Impact of the fine might include: • fines will reduce profit so price/availability might change • prices will rise if costs rise e.g. more training costs (Ext 2 para 4) in order to prevent this happening again	16

- prices may fall if the market becomes more competitive
- it will act as a disincentive, either to collude or to invest in the industry
- curtail growth of international firms,
- government can use revenue of fines to subsidise local firms or give vouchers to consumers
- more smuggling might occur
- risk to babies of increased use of domestic milk? Reduced availability of high quality milk forces consumers to opt for domestic substitutes
- firms may be forced to cut costs e.g. for quality for checks
- impact on markets outside China e.g. British consumers have more access to formula milk as exports fall (Ext. 2 para 1)
- foreign firms might pull out of China
- fines on foreign firms may give Chinese firms a gap in the high quality milk market

Evaluation 8 marks e.g. (4 + 4) or (3 + 3 + 2) or (2 + 2 + 2 + 2)

Evaluation points can be the reverse of the above points.

Other points might include:

- Consideration of the size of the fines in relation to the profits made e.g. the impact may not be significant or not at all

- Prices might fall (or the reverse of the above) e.g. as more firms enter the more contestable market

- The firms might become more dominant as only the large firms can bear the fines e.g. the mergers make the market more concentrated

- Consideration of the very low PED for consumers who had only been allowed one child under government rules e.g. the fines will not stop people buying the milk

- Better ways to control the level of foreign imports, e.g. trade barriers as an alternative way to keep foreign imports out, unlikely to affect their image as in such high demand
- Fines alone do not improve domestic provision e.g. it depends on whether the money from the fines is reinvested into Chinese production of milk powder

Question Number	Mark scheme	Mark
10a	**Theory 2**: Monopoly/oligopoly/duopoly (1); explanation e.g. where a few firms dominate the industry (1) or interdependent (1) or dominant sellers/legal definition 25% or more market share or highly concentrated (1) **Application:** Shimano and Schramm (1) keep prices high (1); battery costs represent 25% of the cost of e-bikes (1); "Almost all source from the same few supplies" (1) specialist equipment and design in manufacturing batteries (1); their power has stopped bike manufacturers 'squeeze out small competitors' Ext 3 line 12 (1) or small collection of battery firms implied (1)	4

Question Number	Mark scheme	Mark
10b	KAA 4 marks, of which 2 are reserved for the diagram. Explanation 2 marks: **Profits would increase** (1) where bicycle manufacturers adapt and start to sell e-bikes (1) Ext 3 2 'worth investing in' and line 9 'most traditional brands are coming out with e-bike lines'. Ext 1 lines 6-7 e-bikes growing by 22% a year. Figure 1 bicycle sales falling as e-bike sales rising. OR Identification/use of data to argue that **profits would decrease** (1) where e-bikes are a substitute or competing firm for traditional manufacturers (1) Extract 2 in France sales of traditional bicycles fell by 9% Diagram (2) showing need to minimise losses/make	8

profit:

- decrease or increase in AR/MR (**ensure this correlates with the argument used**) (1). The mark is awarded for the point MC=MR identified on new cost/revenue diagrams.
- new profit/loss area shown (1) The mark is awarded for the correct area shown.

Evaluation (4) Award as 2+2 or 3+1 or 4+0 marks.

The argument might be the reverse of the above, e.g. profits fall.

- It depends on how well the traditional bike manufacturers have embraced the new trend – not all firms affected in the same way.
- It depends on the costs for existing bicycle firms to move into e-bikes (e.g. Cannondale in Extract 3)
- Comment on the degree of changes in sales (might be seen as insignificant, or merely recession related) e.g. using Fig 1
- Other factors might have a greater impact on profits, e.g. the cost of batteries
- Not enough information to say e.g. they face many costs etc.
- Depends on their previous target market – e.g. – kids bikes won't have changed, which countries they mainly supplied
- Other factors could be compounding the impact e.g. – rising incomes in China

Question Number	Mark scheme	Mark
10c	KAA 6 Marks Award up to 3 policies (2+2+2) or 2 policies up to 3 marks each. **Policies must be linked to increasing sales.** Pricing policies might include: - Revenue maximisation - Output max/sales maximisation - Limit pricing or other reductions in price e.g.	12

discount price
- Price discrimination
- Predatory pricing – a deliberate strategy of driving competitors out of the market by setting very low prices or selling below AVC. Once existing firms have been driven out and entry of new firms deterred it can raise prices and increase revenue (OECD definition).
- Limit pricing – pricing by the incumbent firm(s) to deter entry or the expansion of fringe firms. The limit price is below the short run profit maximising price but above the competitive level (OECD definition).
- Profit maximisation (increasing revenue if not previously doing so – note that this is not automatically true)

Non-pricing policies might include:
- Advertising
- Loyalty schemes
- Sales promotions e.g. free helmet, 'deals' for multiple purchases
- Branding
- Collusion behaviour linked with higher sales.
- Mergers and other growth
- Quality improvements, e.g. 'attractive designs' Ext 3 line 4
- After-sales service

There must be at least one pricing and non-pricing policy, and clear application, or CAP at 4/6 KAA.

Evaluation 6 marks

Award up to 3 points (2+2+2) or 2 points up to 3 marks each.
- Drawbacks of chosen policies, e.g. how effective they are, illegal (this is allowed for predatory pricing, but is not always true for limit pricing – depends on whether it is anti-competitive)
- Market is growing so prices could be raised

| | • Depends on the reaction of other firms. Game theory could be used to support the evaluation (also can be awarded as part of KAA)
 • Standard weakness of policies, e.g. predatory pricing is illegal, might attract fines.
 • Large assets purchases are not usually repeated in the short term therefore coupons or vouchers may not work. | |

Question Number	Mark scheme	Mark
10d	**KAA 8 marks** Award up to 4 points e.g. 4 + 4 marks, 3 + 3 + 2, 2 + 2 + 2 + 2 **Reasons why the industry is contestable (this might count as KAA or Evaluation)** • new firms are entering 'most traditional brands are coming out with e-bike lines as well' Ext. 3 line 9 • existing firms are bringing out electric versions of their traditional bicycles • all firms have to pay the same costs for motors/batteries, so small firms can exist/not squeezed out Ext. 3 line 12 • evidence profits are low (sign that firms are entering) • could see bigger firms such as car manufacturers diversifying into this market in the future if the trend continue • Use of data to evidence the new specialist firms that have started up/or that the existing bike firms have easily been able to diversify • Bike can be sold online e.g. internet technologies make most markets more contestable now – knowledge is better, fixed costs can be reduced • Technological change can make entry easier e.g. flexible machinery **Do not award answers based on competitiveness rather than contestability**	16

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 are large and able to cross subsidise e.g. only two firms in Ext 3 line 9 do not already make traditional bikes
- Established firms might have economies of scale
- Retail outlets might be unwilling to stock e-bikes
- Profitability is high Ext. 3 lines 2-3 (sign that firms cannot enter and erode profits)
- Patents keep new firms out (allow legal barriers)
- The design element acts as a barrier to entry e.g. Ext 2 line 4 'sophisticated electronic controls'
- As the established firms grow there might be economies of scale or abuse of oligopoly power, making the industry less contestable
- Start-up costs as a barrier to entry (especially due to the batteries)
- Sunk costs e.g. marketing costs as a barrier to entry e.g. brand name 'Cannondale'
- 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
- Depends on which 'market' e.g. EU 1.5m, China (largest market) or world (40m)