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Mark Scheme (Post - Standardisation) Summer 2009

GCE

GCE Economics (6354/01)

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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.

N.B. Award a maximum of 2 explanation marks if the incorrect key is chosen

N.B. Award a maximum of 2 marks (1+1) for valid explanations of 2 incorrect options (1+1)

Question Number	Answer	Mark
1	**C** • **Definition** of horizontal integration (firms merge in the same industry and at the same stage of production) (**1**) Definition or diagram of economies of scale(long run average costs fall as output increases) (**1**) **N.B. must state long-run** • Application to any type of economy of scale to sportswear: (**1+1**) ➢ Purchasing (bulk buying of sportswear from suppliers) ➢ Technical (larger machinery to produce sports clothing / footwear) ➢ Managerial (specialist labour e.g. accountants / lawyers) ➢ Risk bearing (diversifying into UK market) ➢ Financial (easier to raise funds at lower cost) ➢ Marketing (lower unit cost of advertising)	**(4)**

<table>
<tr><th>Question Number</th><th>Answer</th><th>Mark</th></tr>
<tr><td>2</td><td>C
• Correct completion of column to show rising marginal costs (at least three figures to be shown) (1).
• Correct completion of column to show constant marginal revenue (at least three figures to be shown) (1).
• Correct definition or formula for marginal cost, marginal revenue or average revenue. (MC is the addition to total cost from producing one more unit of a good or MC=ΔTC÷ΔTQ). (MR is the addition to total revenue from production of one more unit of a good or MR=ΔTR÷ΔTQ). (AR is revenue per unit of good or AR=TR÷TQ). (1)
• Perfect competition since marginal revenue equals average revenue or firm is price taker or demand is perfectly price elastic (1).

<table>
<tr><th>Total Output</th><th>Total Cost (£)</th><th>Total Revenue (£)</th><th>Marginal Cost (£)</th><th>Marginal Revenue (£)</th></tr>
<tr><td>0</td><td>40</td><td>0</td><td>---</td><td>---</td></tr>
<tr><td>1</td><td>80</td><td>100</td><td>40</td><td>100</td></tr>
<tr><td>2</td><td>140</td><td>200</td><td>60</td><td>100</td></tr>
<tr><td>3</td><td>220</td><td>300</td><td>80</td><td>100</td></tr>
<tr><td>4</td><td>320</td><td>400</td><td>100</td><td>100</td></tr>
<tr><td>5</td><td>440</td><td>500</td><td>120</td><td>100</td></tr>
</table>
The MR can also be labelled AR.

Also award:
• Diagram of perfectly competitive firm with horizontal MR curve and rising MC curve (accept SR and LR)(1).
NB. No marks for other characteristics of perfect competition.</td><td>(4)</td></tr>
</table>

<table>
<tr><th>Question Number</th><th>Answer</th><th>Mark</th></tr>
<tr><td>3</td><td>A
• Role of OFT or Competition Commission investigate anti-competitive practices / protect the consumer or public interest / the powers of the OFT e.g. fine firms up to 10% of annual revenue (1)
• Identification of price fixing / collusion / cartel (1).
• Price fixing is against interest of consumers since it leads to higher prices / lower consumer surplus. (1)</td><td>(4)</td></tr>
</table>

Question Number	Answer	Mark
4	**B** • Allocative efficient pricing is where marginal cost equals average revenue (MC=AR or MC=Price) (**1**). • Definition of supernormal profit (where total revenue exceed total costs / profits in excess of that required to keep resources in their current use / profits greater than normal profits) (**1**). • At output level Q4, price (average revenue) exceeds average cost and so supernormal profit is made (**1**). Also award: • Annotation of diagram, for example, shading in area of supernormal profit (**1**). • Be prepared to award knock-out marks e.g. option A is incorrect since revenue maximisation output of Q2 is greater than profit maximisation output of Q1 (**1**)	**(4)**

Question Number	Answer	Mark
5	**C** • Definition of price discrimination (a firm charging different prices to different consumers for the same product) (**1**) • Apple is able to charge a higher price in UK since it has lower price elasticity of demand (less elastic / more inelastic demand) than for the US (**1**). • Diagrammatic analysis depicting different price elasticities of demand, with UK market having a higher price than US market (**1+1**). Also award: • Apple is able to separate the two markets and so there is little leakage **or** has monopoly power / market power (**1**). (Only 1 mark available here)	**(4)**

Question Number	Answer	Mark
6	**E** • **Data reference** for example, UK gas market appears more competitive in terms of 'price' – it has the lowest price of gas for the three countries shown / a higher proportion of consumers have been able to switch gas suppliers (**1**). N.B. award a maximum of 1 mark for data reference. • Award for development of these points e.g. this implies significant consumer choice exists for UK gas consumers / more firms are likely to exist in UK gas market / lower concentration ratio / higher consumer surplus in the UK / less brand loyalty in UK / lower unit costs of production in the UK(**1+1**).	**(4)**

Question Number	Answer	Mark
7	**B** • Role of Competition Commission, for example, to promote competition in markets / protect consumer or public interest (**1**). • A patent on Microsoft's technological information is an entry barrier (**1**). • Definition of contestable market in terms of low entry and exit barriers/ low sunk costs / hit and run competition (**1**) • Patents enable firms to exploit consumers through high prices / less choice. OR removal of patents / consumer welfare through lower prices, more choice and improved quality. **(1)** • Sharing of patents allows rival firms to have increased technical information and compete. **(1)**	**(4)**

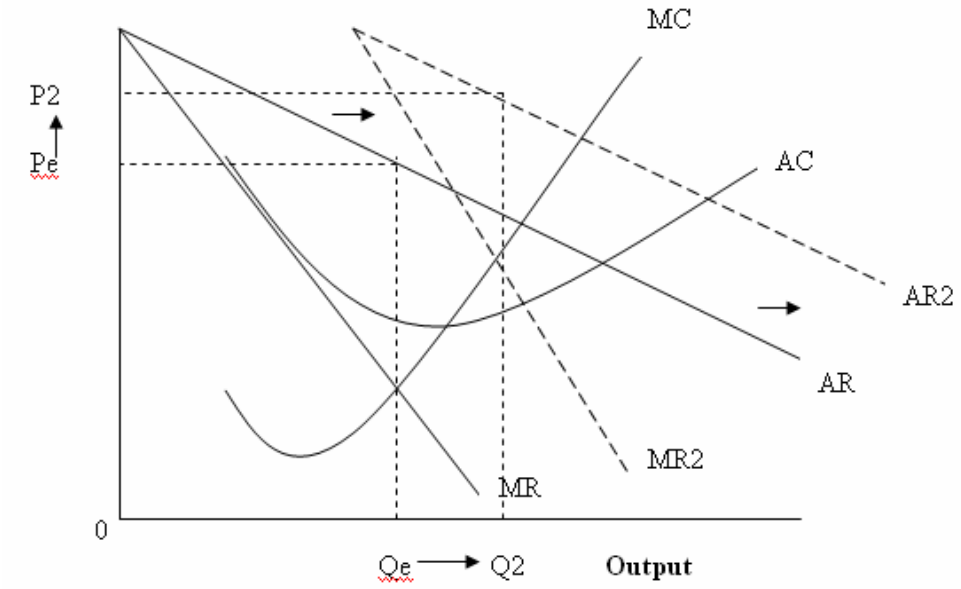
Question Number	Answer	Mark
8	**E** • Definition or formula of average revenue (revenue per unit of output or TR÷TQ) or average variable cost (variable cost per unit of output or TVC÷TQ) or variable cost (costs which vary directly with output)(**1**). • Examples of variable costs to motor vehicle manufacture – labour, electricity, vehicle components (**1**). • By remaining in production the firm can reduce its losses by contributing to part of its fixed costs **or** fixed costs only need to be covered in long run as they are sunk into the firm (**1**). Also award: • Diagram showing firm making loss (**1**) but covering average variable costs (**1**) • Numerical example of loss making firm where revenue exceeds variable costs (**1**) • In the long-run the firm will exit the industry if it cannot cover both fixed and variable costs (**1**) • Identification of shut-down position when AR=AVC or AR is below AVC (**1**)	**(4)**

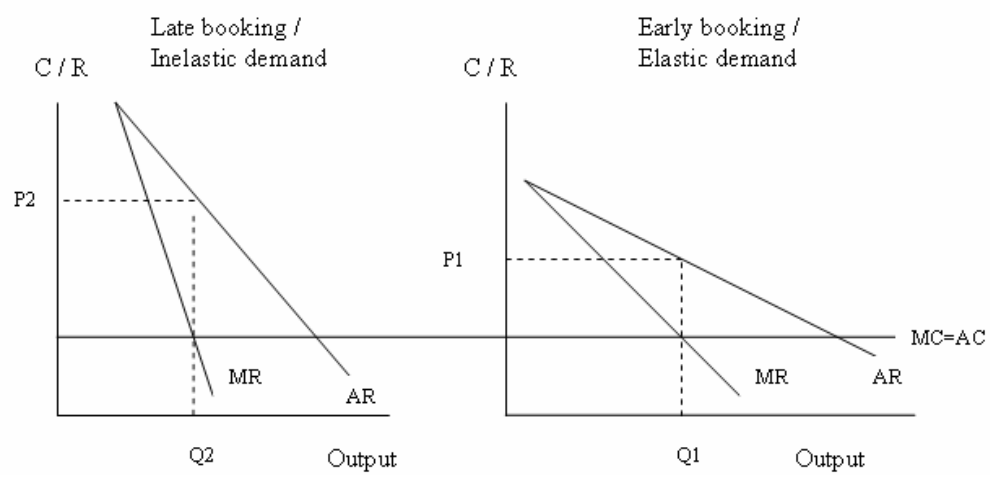
Question Number	Answer	Mark
9	**E** • Outline of product differentiation applied to games consoles e.g. different quality / unique good / different games played on consoles / different graphics / different speed of characters / different functions of consoles / colour / packaging (**1+1**). • A higher price is likely to reflect higher production costs per unit (**1**) • Product differentiation creates brand loyalty / demand is more price inelastic / higher prices may lead to higher profits (**1+1**).	**(4)**

Question Number	Answer	Mark
10	**A** • Allocative inefficiency since MC does not equal AR (accept answers which state the firm is not allocative efficient since it is not producing where MC=AR or MC=Price) (**1**). • Any characteristic of low entry barriers e.g. rent out a building / employ staff on temporary basis / purchase beauty products from wholesaler at low cost / low level of skills / low level of technology (**1**). • Low entry barriers mean supernormal profits are competed away in the long run so only normal profits made (**1**) • Any characteristic of product differentiation e.g. location / décor / type of beauty treatments available / staff uniforms / opening hours (**1**). Also award: • Correct diagram showing firm in monopolistic competition – long run (**1**). **N.B. No marks awarded for other characteristics of monopolistically competitive markets.**	**(4)**

Question Number	Answer	Mark
11(a)(i)	• Understanding of a 'price cap / explain RPI-X', for example, the regulator puts a limit on the increase in rail fares (**1**). • Price capping helps to protect consumer interest / regular travellers **(1).** • Train operators have (natural) monopoly power / so can exploit customers by raising rail fares to very high levels / obtaining high supernormal profits /demand is price inelastic for commuters / capturing consumer surplus – any two points (**1+1**). Also award: • Train operators have an incentive to increase efficiency in order to make profits / if '–X%' price cap set (**1+1**). **Note: Accept a combination of ideas from the two factors.**	**(3)**

Question Number	Answer	Mark
11(a)(ii)	• Understanding of the 'X' factor change , for example: improvement in the prices that rail operators can charge / relaxation of price cap **or** 'RPI-1%' means rail fares rise by 1% below rate of inflation and 'RPI+1%' mean rail fares rise by 1% above the rate of inflation (**1+1**). • One reason for the relaxation of price capping (**3**)**.** ➢ Train operators require more funds for investment purposes / to increase capacity / to keep up with the growth in passenger numbers / to improve quality of service e.g. more trains running on time / frequency of service / reduce overcrowding / to avoid increase in government subsidies. ➢ Data use e.g. explicit reference to growth in passenger kilometres from 38 billion in 2000 to 47 billion in 2007 / figure 2 refers to the age of trains **(1)**. Also award up to 3 marks ➢ There has been a reduction in the efficiency savings train operators can make over the time period / train operators have been successful in achieving efficiency savings (so little scope for further efficiency gains).	**(4)**

Question Number	Answer	Mark
11(b)	• Train operator should be able to increase price or output (**1**) • The increase in demand means the AR **and** MR curves shift outwards (**1**) • One further comment, for example, train operator is likely to have spare capacity on its off-peak services to raise output (**1**) Diagram (**up to 5 marks**) ➢ Original position with costs and revenue curves for a monopoly (**1**) ➢ Average revenue curve shifting outwards to AR2 (**1**) ➢ Marginal revenue curve shifting outwards to MR2(**1**) ➢ Original and new price / increase in price (Pe to P2) (**1**) ➢ Original and new output / increase in output (Qe to Q2) (**1**) ➢ Also accept increase in supernormal profits (**1**) **Cost / revenue**  **N.B Accept diagram showing constant AC and MC curves.** **N.B. Award a maximum of 1 mark for a basic supply and demand diagram where demand curve shifts outwards.** **N.B. Award a maximum of 2 marks if no diagram showing cost and revenue provided.**	**(6)**

Question Number	Answer	Mark
11(c)	• Definition of price discrimination (**1**). • Data use e.g. reference to figure 1 where consumers are separated into different markets according to time of booking / Application of PED to advance booking and buying on the day / other examples (**1+1**) • Purpose of price discrimination is to capture consumer surplus where demand is price inelastic (**1**) • Conditions necessary for price discrimination: monopoly power / ability to separate markets and prevent leakage / different PEDs between markets (**1+1+1**) Diagram(s) (**up to 5 marks**) ➢ Different price elasticity of demand between markets (**1**) ➢ Accompanying marginal revenue curves for each market (**1**) ➢ Higher price where demand is inelastic / lower price where demand is elastic (**1**). ➢ Costs – shown as same (may be horizontal marginal costs curve / average costs curve) (**1**) ➢ Areas of profit (**1**)  Also award for single diagram depicting price discrimination – where different prices are shown for capturing consumer surplus. **N.B. Award a maximum of 1 mark for simple demand and supply diagrams.** **Award a maximum of 4 marks if no diagram for KAA.** **N.B. there is a maximum of 7 marks for KAA.** **Evaluation (3+2 or 2+2+1)** Effectiveness of price discrimination depends on various factors: • Extent of monopoly power - many train operators are regional	

	monopolies with little effective competition / e.g. road travel may be very poor / profits can be high. • Extent of preventing leakage - train operators can prevent leakage between markets by enforcement e.g. ticket inspectors / ticket barriers / time of booking / and therefore profits can be high. • Costs of separating consumers into different markets should not exceed the extra revenue generated. • Spare capacity is required on train services where a lower price is charged / Extract 1 indicates that spare capacity remains even after price discrimination / therefore profits might be increased through further price discrimination. • Issue of price capping by regulator – may limit ability of train operator to increase rail fares and profits / 40% of rail fares are price capped. • Internet usage increase consumer knowledge which impact on price discrimination as a means of affecting profits. • Duration of the rail franchise – the longer this is the greater the possibility of gaining profits from price discrimination.	**(12)**

Question Number	Answer	Mark
11(d)	**N.B. Candidates may argue an increase or decrease in welfare for analysis marks. Evaluation is when both sides of the argument is presented.** • Consumer welfare may have increased since **(2+2+2)** ➢ Growing passenger numbers (Extract 1) / from 38 billion in 2000 to 47 billion in 2007. ➢ Increase in punctuality of trains (Figure 3) / from 79.1% of trains arriving on time in 2000 to 90.8% in 2007 / this implies that fewer people are late for work or meetings. ➢ Fall in passenger complaints (Figure 3) / from 131 per 100,000 in 2000 to 52 in 2007 / this implies fewer problems or people resigned to the quality of service. ➢ Fall in age of trains (Figure 3) / from 20.67 years in 2000 to 13.95 years in 2007 / this implies more comfortable and reliable journeys. ➢ Lower rail fares if book well in advance / use of data in figure 1 such as London – Newcastle where fares were as low as £16 eleven weeks before departure but as high as £92 on day of departure / this enables more consumers to be able to afford rail travel / increase consumer surplus. ➢ Government subsidy of £4.6 billion to rail industry – could finance investment / run unprofitable services for rail consumers. These gain at expense of other consumers who do not use rail network. • Consumer welfare may have decreased (**2+2+2**) ➢ Overcrowding on peak time train services / this suggest too few trains to cope with rising demand. ➢ Uncertainty over train fares and consumers do not always get the lowest price possible / over 70 different fare types. ➢ Significant increase in unregulated train fares above inflation rate (accounting for 60% of journeys) / consumer surplus is captured. ➢ Since 2004 regulated train fares have increased by 1% above inflation rate – so a	**(10)**

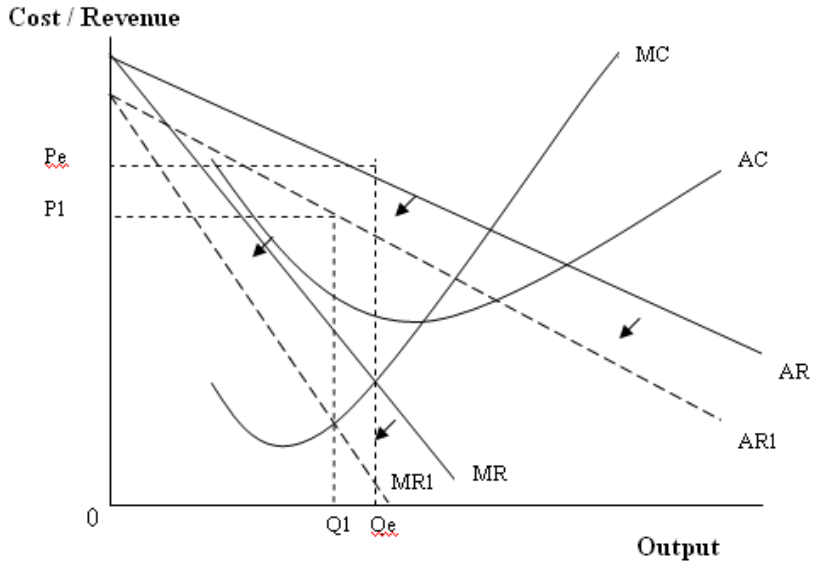
	real increase in fares. ➢ Issue of regulated fares linked to RPI rather than CPI. Note RPI has been higher than CPI over recent years. ➢ Government subsidy of £4.6 billion has implications / higher taxes / opportunity cost associated with the subsidy. • Weighing up the overall argument and justifying conclusion arrived at. • Reliability of the data / further information which could help make an evaluation. • Difficulty in measuring consumer welfare. • Time issue – perhaps improvement may / may not continue. • Issue of too short franchises for train operators to invest sufficiently into new rolling stock.	

Question Number	Answer	Mark
11(e)	**N.B. presenting both arguments for and against the train operating market being contestable can be considered as evaluation.** **N.B. If no application to train operating market then award a maximum of 3 marks.** • Definition of contestable / uncontestable market. E.g. a contestable market has low entry & exit barriers / low sunk costs / hit and run entry (**1**). • Train operating market unlikely to be contestable since: (**1+1**). ➢ Government licence required. ➢ Limited time allocation slots on rail track. ➢ Dependant on government subsidy or purchase of franchise. ➢ Economies of scale / natural monopoly. ➢ Limit pricing of existing franchise holder. ➢ High start up costs in terms of purchasing / renting rolling stock. ➢ High exit costs in terms of loss of rolling stock / weak second hand market. ➢ Redundancy payments on exit could be quite high. ➢ Recruitment of train drivers could be hard. ➢ Brand loyalty to specific rail services. **Evaluation (up to 2 marks)** • Contestable once the franchise is due for renewal on existing franchisee. • Magnitude of the entry barrier - impossible without franchise. • Company can rent rolling stock which reduces entry cost. • Company rents time slot along track, signalling & stations so reduces entry cost. • Large firms may have the funds to enter the train operating market. • Government can subsidise new entrants to help reduce entry barriers. • Firm can buy / sell trains and carriages on entry and exit.	**(5)**

Question Number	Answer	Mark
12(a)(i)	• Identification: the market structure is an oligopoly (**1**). • Definition: an oligopoly (few sellers and many buyers **or** a few large firms dominate the market) (**1**). • Application: the 4-firm concentration ratio is 74.5% **or** the 3-firm concentration ratio is 64.2% or the 2-firm concentration ratio is 48.5% (**1**). **Also award** • Identification: the market structure is monopoly (**1**). • Definition: a monopoly (a single producer in a market / a legal definition where firm has 25% or more market share) • Application Universal has 31.9% market share which exceeds the legal definition of a monopoly having 25% market share (**1**). **N.B. maximum of 1 identification mark available**	**(3)**

Question Number	Answer	Mark
12(a)(ii)	• Consideration of one type of collusive practice and development of it for example, price fixing / allocating market shares / limits to marketing budgets / sharing market information / tacit collusion (**1+1**) • An oligopolistic market structure may make it conducive to collusion e.g. relatively few major firms to reach an agreement / high barriers to entry (**1+1**) • Tacit collusion may occur since Universal is market leader with 31.9% share and so other firms might follow its pricing and marketing decisions (price leadership) (**1**) **Evaluation** (**2 marks** for one factor) • Collusion is unlikely due to the severe penalties firms may face, for example, fines of up to 10% of revenue / possible imprisonment of directors. • Collusion is unlikely since Competition laws encourage whistle blower since main informant is treated leniently. • Collusion less effective when cheating occurs and is likely to break down. • Collusion is unlikely since 25% of the market contains independent music companies – who could expand their market share if the major firms undertake price fixing. • Collusion is unlikely since the pace of technological change is so fast, undermining any price and output agreements for a specific mode of music e.g. internet downloads. • Tacit collusion may occur as it is very difficult to prove by the competition authorities. • Collusion unnecessary if a music firm has top artists under contract / PED is inelastic.	**(5)**

Question Number	Answer	Mark
12(b)	➢ Explicit reference to data using figures for both CD sales increasing **and** CD revenue decreasing (accept reasonable approximations) (**2**). **If candidates just refer to CD sales increasing and CD revenue decreasing just award 1 mark.** ➢ CD prices must be falling (**1**) ➢ Reasons for falling CD prices include: increase in internet downloads / improvements in technology (**1**). ➢ Demand is price inelastic (**1**) the percentage fall in price is greater than the percentage increase in sales of CDs (**1**). ➢ Also award for diagram showing falling price & revenue (**1**).	**(4)**

Question Number	Answer	**Mark**
12(c)	 Diagram which explicitly shows: (**up to 6 marks**) ➢ Original position with cost and revenue curves which shows profit maximisation (**1**) ➢ inward shift of Average Revenue and Marginal Revenue curves (both required)(**1**) ➢ falling price level (**1**) ➢ falling output level (**1**) ➢ original profit level (**1**) ➢ new profit level (**1**) **N.B. allow pivotal shift in AR and MR curves** **N.B. candidate must show a fall in price, a fall in output and a fall in profits to obtain maximum marks from the diagram. Otherwise award a maximum of 4 marks for the diagram.**	**(10)**

	• Written explanation of falling demand causing a decrease in price, output and profits (**1**). • Reference to CD sales decreasing by 11% in 2007 (**1**). **Note: Award a maximum of 1 mark for diagram showing an inward shift in demand and fall in price if a basic demand and supply diagram is used.** **Evaluation** (**2+1 or up to 3 marks for one point well developed**) • Magnitude: the extract indicates an 11% fall in CD sales in 2007 and so is likely to have a significant impact on price, output and profits. • Time factor: the question asks candidates to consider 2007 – but this decline in sales is likely to be part of a long term trend. It seems appropriate for candidates to assume the situation will worsen in the long term. • However, a music company may diversify into other methods of music sales and so may not be affected too seriously in terms of price, output and profits for its music. For example, legal download sales have risen from 5 million in 2004 to 73 million in 2007. • A music company may be able to reduce its production costs / reduce its CD operations to offset the decline in CD sales / an increase in productivity could also help restore profits. • Firms might switch strategies e.g. from profit maximisation (MC=MR) to sales maximisation (AC=AR)	

Question Number	Answer	Mark
12(d)	**Award a maximum of 8 marks out of 12 if only the music industry or consumers considered** **(KAA 3+3+2 or 2+2+2+2)** Music industry (producers) positive effects • Once the system is set up – very low marginal costs of supplying tunes. • Internet download is growing rapidly as people become more proficient with new technology – so a lucrative market for music producers. • New technology is opening up new markets, for example, mobile ringtones & USB memory sticks. • Lower marketing costs for new artists and new releases. • Lower production costs e.g. less stores and staff required. • A huge audience using the internet – so potential market for songs is enormous. • Immediate payment system online. Music industry (producers) negative effects • Spread of illegal internet downloads – around 10% of music market / lower revenue and profits. • Fighting illegal downloads is time consuming, expensive to monitor and hard to prosecute offenders. Prosecution of minor offenders is bad for public relations. • Requires support from Trading Standards and authorities to enforce. • Legal internet downloads undermines music sales in CD market. Consumers – positive effects • Downloads are cheaper / greater consumer surplus / consumers can purchase individual songs rather than whole albums. • Highly convenient to purchase online in own home rather than going to shop. Instant collection of purchase via internet. • Vast choice of music on internet websites. • Improved consumer knowledge, for example, price discrimination is made more difficult for firms. Consumers - disadvantages • Question mark over the safety of online payments. • Some consumers desire a physical product like a CD.	

	• Closure of music stores in shopping centres. • Some consumers may not have access to internet or lack skills to use it. **Evaluation (2+2)** **There are 4 evaluation marks and these may be awarded for discussing both the positive and negative impact on either the music industry or consumers.** **Evaluation also includes:** • Prioritise: discussion of who gains most – consumers or producers. • Prioritise: discussion of whether the advantages of the internet outweigh disadvantages. • Magnitude: the change to internet shopping is very rapid; note the growth in legal music downloads from 5 million to 73 million between 2004 and 2007. • Time factor: The internet is revolutionising the way producers sell and consumers shop - music downloads is at the forefront of this change.	**(12)**

Question Number	Answer	Mark
12(e)	Identification **(1+1)** development / analysis of two barriers to entry (**1+1**). Barriers to entry include: start up costs e.g. recording studios / research into developing new artists / contracts with artists / advertising expenditure / brand loyalty of artists to existing music firms / technological skills in setting up internet download website / marketing costs / limit pricing of the 'big four' music companies. **Evaluation** (**2)** Prioritise over the greatest entry barrier: ➢ Research into developing new artists might involve element of luck and be very significant. ➢ The internet makes it easier for companies to enter the music recording industry. ➢ Music recording studios can always be hired out for artists so less significant. ➢ Marketing costs can be kept down through use of internet. ➢ Limit pricing is illegal and so the 'big four' are unlikely to carry this out. • Magnitude of entry barriers, for example, many small independents record labels exist suggesting lack of brand loyalty to large firms.	**(6)**