



Economics

Advanced GCE F584

Transport Economics

Mark Scheme for June 2010

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Section A

Question	Syllabus Ref		Mark	Rationale
1 (a) (i)		 Explain why the demand for air transport can be said to be a 'derived' demand. 2 marks for a clear explanation applied to air transport such as: "air transport depends upon the demand because the demand for air transport depends upon the demand for the products which it is carrying". Alternatively, award 1 mark for knowledge of what derived demand is: Where a good is demanded because it is needed in the production of other goods. Where a good is demanded for what it can do rather than what it is. Where demand for one good depends upon the final output of <u>another</u> good. Where the demand for one product comes from / stems from / depends upon the demand for another product. Where a product is demanded for what it can do rather than what it is. 1 mark for valid application of this: For example, the simple idea that the higher the demand for products, the higher the demand for air transport is. OR a simple example such the greater the number of holidays taken / more people travelling overseas for work / more leisure time increasing numbers flying / people travelling more due to business meetings. 	[2]	2 marks are available for a clear explanation which is applied to air transport. NOTE: answers which simply provide an economic definition of derived demand but lack any application to air transport gain only 1 mark Award 2 marks for applied explanations OR Award 1+1 for definition of derived demand which is then followed by application to air transport

Question	Syllabus Ref	IS Expected Answer	Mark	Rationale	
Question (ii)		 Explain two reasons why the demand for air travel is predicted to increase by 2030 (lines 14–15). One mark for the clear identification of each factor (up to a maximum of two marks). Relevant factors include: increased disposable incomes / increased GDP / increased business activity changes in tastes and fashion (and convenience) the greater relative costs of substitute goods (eg rail travel) lower price/cost of complementary goods (eg foreign holidays) falling air fares increased number of UK residents holidaying abroad increased population the building of new airports which make air travel more accessible the increased number of firms in the industry / increase in number of budget airlines greater congestion on roads which make car travel a less attractive alternative / air travel is becoming a better substitute to cars 	Mark [4]	Rationale Straight forward application of demand factors – accept responses from a passenger transport perspective. For each factors, mark as 2+2 with 1 mark for identification and 1 mark for explanation. Explanation of the factor must be linked in to air travel. For example, the simple statement that "higher incomes mean higher demand" receives only 1 mark for identification as there is no clear explanation. In contrast, an answer which says "higher incomes as consumers may therefore go on holiday more often and fly more" receives both marks. NOTE: for explanations, accept any basic but reasonable explanation of why demand may rise.	
		 locally) extrapolation from previous trend data suggests that demand will continue rising increased global trade globalisation 			
		A further 1 mark for any reasonable development of why			

C	Questi	on	Syllabus Ref	Expected Answer	Mark	Rationale
				the identified point causes demand to rise.		

Question	Syllabus Ref	Expected Answer	Mark	Rationale
(b)		Comment upon the extent to which the addition of a third runway would allow the owners of Heathrow airport to benefit from economies of scale.	[6]	
		1 mark is available for knowledge with the clear identification of any economy of scale. These include:		3 parts to this question –
		 financial risk bearing purchasing (accept bulk buying for identification) 		1 mark for simple identification / knowledge
		 technical marketing managerial 		2 mark for the analysis of benefits
		DO NOT credit simple reference to internal/external EOS		3 marks for discussion/comment as to potential problems
		Up to 2 marks are then available for analysis of the gains from economies of scale:		NOTE: any one evaluative comment which is well
		 1 mark for explanation of why ANY economy of scale arises (for example, larger firms will be able to buy in greater bulk and therefore negotiate 		developed can gain all three evaluation marks.
		larger discounts OR larger firms have access to cheaper finance / lower interest rates as they borrow much more). NOTE: can analyse a different EOS to that identified already.		PLEASE USE COMMENT BOX TO ANNOTATE RESPONSE IN TERMS OF BREAKDOWN OF MARKS FOR A01, A03 AND A04 HERE.
		 1 mark for explicit recognition that the firm will benefit from lower / reduced / falling unit/ average costs of production OR that production will be at the point of lowest average costs (ACCEPT a diagram showing lower AC's which clearly labels 		PLEASE ALSO COMMENT BRIEFLY ON HOW AO4 MARK WAS ATTAINED.

Question Syllabus Ref		Mark	Rationale	
	 Up to a further 3 marks are available discussion: Potential benefits from economies of scale are likely to be extremely high due to very high fixed costs involved with infrastructure provision (for example, with only one plane taking off from Heathrow, average fixed costs would be very high). Therefore, as output increases, average fixed costs (and AC's) will continuously decline. The possibility of diseconomies of scale – firms expand too much and incur higher average costs. With Heathrow already operating as one of the world's largest airports, the benefits of economies of scale. So current level of output is an issue. Accept reference to specific economies of scale not gained (e.g. limited managerial economies) 		For discussion, accept valid references to specific economies of scale which may not arise. Award explanations which provide plausible explanations for this e.g. may not necessarily benefit from marketing economies of scale because Award one evaluative mark for a diagram which explicitly labels diseconomies of scale. If diseconomies of scale are developed for the evaluative factor, all three marks can be gained by identifying this as an issue and then developing in terms of examples e.g. control, co-ordination and communication issues	

Question	Syllabus Ref	IS Expected Answer	Mark	Rationale
(c) (i)		 Explain what is meant by 'cost-benefit analysis'. 2 marks for a clear statement that it is a decision making tool which weighs up the relative social costs and benefits of different projects in order to calculate the net present value of a project 1 mark for the simple idea that it is a decision making tool OR that it weighs up costs and benefits OR that it is an attempt to take a long and a wide view of projects 	[2]	 Two elements are needed for both marks: 1. A clear idea that CBA is used to assess the viability of projects OR is a decision making tool / makes decisions / helps test viability of a project / helps prioritise schemes. 2. That it takes in to account all of the effects of a project over a period of time OR that it tries to weigh up all costs and benefits / pros & cons / advantages & disadvantages/ positive and negative effects of a project
(ii)		Using Fig. 1, calculate the annual social cost of Heathrow's proposed expansion.	[1]	Accept any figure within range. NOTE: must include billions. Do not accept
		1 mark for correctly identifying any figure within the range $\pounds11.28 - \pounds12.7$ billion		£11.28! DO accept correct answer without reference to £'s.

Question	Syllabus Ref	Expected Answer	Mark	Rationale
(iii)		Identify two external benefits arising from the expansion of Heathrow airport.	[2]	
		1 mark for each relevant example to a max. of 2 marks:		Does not necessarily need to draw upon case material, although this is one possible route.
		increased trade for local businesses		If both factors are correctly identified under
		increased employment		subheading (1) in the answer booklet then still award both marks.
		• possible increased productivity (due to reduced travel times)		
		• increased N.I. / economic growth within the region / regional multiplier effects / increased economic activity in the London area (accept reference to the £5 billion of increased benefits referred to in the article)		NOTE: <u>do not</u> award marks for possible private benefits (e.g. increased profit / business for the contractors building the new runway / benefits to passengers using the airport / improvements to infrastructure).
		increased international trade		DO NOT reward any references to reduced
		increased inward investment / increased FDI		external costs (e.g. lower congestion / pollution)
		• increased tourism (with more flights into Heathrow)		
		increased tax revenue for the government		
		• economic benefits from increased labour mobility.		

Question	Syllabus Ref	Expected Answer	Mark	Rationale
(d)		 Discuss the effectiveness of cost-benefit analysis for the government in making decisions on airport expansions. A max. of 3 marks for analysis of how CBA works: CBA involves a comparison of costs and benefits of a project OR a comparison of the pros and cons OR advantages and disadvantages of a project (1 mark). CBA makes forecasts of future costs/benefits OR uses costs/benefits over a period of time (1 mark) CBA then attaches monetary values to factors (1 mark) 	[8]	For analysis marks, do not award marks for the simple idea that "CBA helps with decision making" – expect analysis of <u>how</u> it does this. For evaluation marks, any two evaluative factors which are clearly developed can gain all 5 marks here with a maximum of 3 marks available for each evaluative factor which is developed.
		CBA uses shadow prices (1 mark) CBA attaches weightings to different factors (1 mark) CBA will attach probabilities to uncertainties (1 mark)		NOTE: there are no application marks here so no marks can be given for simply listing possible costs and benefits of the expansion.
		CBA results in those projects going ahead only where social benefit > social cost OR CBA involves the selection of projects where net social benefit is the greatest OR projects will only proceed if benefits>costs OR projects only proceed if net social benefit is positive OR if Net Present Value is positive (1 mark). By selecting those projects where SB>SC the benefit to society / social welfare / the gain to National Income will be maximised (1 mark).		PLEASE USE COMMENT BOX TO ANNOTATE RESPONSE IN TERMS OF BREAKDOWN OF MARKS FOR AO3 AND AO4 HERE. PLEASE ALSO COMMENT BRIEFLY ON HOW THESE MARKS WERE ATTAINED.
		Up to 5 marks are available for discussion of problems which the government may face in undertaking CBA:		

Question Syllabus Ref	Expected Answer	Mark	Rationale
	 Which method of measurement should be used to estimate different costs and benefits? <u>Enumeration issues</u>: Difficult to attach monetary values to costs/benefits, particularly external costs/benefits which are often intangible. e.g. how do you attach a monetary value to the loss of a view or the cost of increased noise? In this way, if the numerical estimates are incorrect then so too will be any decisions made on the basis of these. <u>Identification issues</u>: Which costs and benefits should be included? How 'long' and how 'wide' should the scope of CBA be? In theory, as many costs and benefits should be included? This introduces an element of subjectivity in to CBA. Political considerations may well result in some factors being given higher/lower weightings than otherwise would be the case. What values should be placed upon future costs and benefits in order to make a decision today? (In other words, what discount rates should be used?). Possible political pressures on the government / government failure /possible bias The effectiveness of CBA ultimately depends upon the accuracy of the data used. 		One evaluative point well made can gain up to 3 marks For development of enumeration issues, accept relevant examples.

Que	Question		Syllabus Ref	bus Expected Answer	Mark	Rationale
				High cost of CBATime taken to undertake the study		
				Maximum 8 marks for question		

Section B

Question	Syllabus Ref	Expected Answer	Mark	Rationale
2 (a)		Analyse, using a diagram, the market structure of a monopoly. Candidates should develop a clear diagram, as below. The explanation should develop relevant characteristics and/or behaviour of a monopolist including: • monopolists are single sellers of products • monopolists are price makers • there are a lack of close substitute goods • the existence of high barriers to entry • barriers to exit • production takes place where MC = MR • supernormal profits in LR • resulting equilibrium is productively inefficient • resulting equilibrium is allocatively inefficient • possible dynamic efficiency gains / economies of scale	[15]	In terms of rewarding diagrams: 9 marks for a perfectly accurate diagram without any further explanation / analysis (bottom L3). No higher mark can be given until characteristics are analysed. 8 marks for a diagram which is partially accurate apart from one minor error (i.e. showing the incorrect profit area OR with no labelling of axes OR equilibrium points not labelled) which also has no development of written analysis. 7 marks for a diagram which is partially accurate apart from two minor errors. 5 marks for a partially accurate diagram, which as a minimum labels MR and AR correctly, with no written analysis. <u>In brief:</u> A partially correct diagram which is accompanied by relevant written <u>analysis</u> of monopoly characteristics can still reach Level 3 but will be limited to a maximum of 13 marks. Answers with diagrams which fail to label MR/AR (the minimum requirement) but have correct written analysis can gain 9 marks maximum. An answer with no diagram can gain 6 marks maximum. In such cases, award 5-6 marks only

Qu	estio	on Syllabus Ref	s Expected Answer	Mark	Rationale	
2	(a)		ACCEPT natural monopoly diag. applying same mark scheme Level 3 [9–15]		where relevant characteristics are identified. <u>An accurate diagram</u> plus very good analysis (ie two characteristics analysed) gains 13-15 marks.	
			For a clear, accurate diagram and/or development of what are some of the characteristics of monopoly. For 13+ marks, a clear diagram must be accompanied by analysis of at least three characteristics. Relevant analysis may take the form of:		An accurate diagram with good analysis (ie one characteristic clearly analysed) gains 12 marks. An accurate diagram with basic analysis (ie one characteristic analysed in a basic manner) gains	
			Monopoly has high barriers to entry (L2). These mean that the monopolist can maintain supernormal profits into the long run because potential entrants will not be able to enter the market (L3). Alternatively, monopoly is the single seller of a product (L2). This means that the monopolist will be able to choose either the level of price or the level of output which is produced in the market and therefore is a price maker (L3).		 10-11 marks. <u>A partially accurate diagram</u> plus very good analysis (i.e. two characteristics analysed) gains 12 marks. A partially accurate diagram with good analysis (i.e. one characteristic clearly analysed OR two or more characteristics analysed in a basic manner) gains 10-11 marks. 	
			Likewise, a monopoly producer will face a lack of clear substitute goods to their product (L2) and therefore will be able to charge whatever price they wish knowing that they cannot be undercut by other suppliers (L3).		A partially accurate diagram plus basic analysis (i.e. basic analysis of one characteristic) gains 9 marks.	
			Monopoly maximises profit where MC=MR (L2). Here the firm reduces output and increases price (compared to a competitive market) to make supernormal profit (L3).		Finally, a diagram which fails to reach the minimum requirement of clearly labelling MR/AR	
			In other words, to move from L2 to L3 there must be some explanation of the characteristic either in terms of how it gives rise to monopoly OR why the characteristic arises (for example, accept analysis of why allocative inefficiency arises).		but includes valid written analysis can gain 9 marks maximum.	

Question	Syllabus Ref	Expected Answer	Mark	Rationale
	Ref	 Level 2 [5–8] For an application of knowledge and understanding of the characteristics of monopoly 8 marks: a diagram which shows the wrong profit area OR fails to label axes OR fails to label equilibrium points but is otherwise accurate. 7-8 marks: a partially accurate diagram (which as a minimum labels MR and AR correctly) which also identifies at least one relevant characteristic of monopoly. 5-6 marks: a partially accurate diagram (which as a minimum shows MR and AR correctly) with no characteristics identified. NOTE: A diagram which fails to clearly identify MR/AR but includes valid written <u>analysis</u> can gain 9 marks maximum. If no diagram is produced then a maximum of 6 marks will be available for applying different characteristics regardless of how good the written explanation of these is. 		Answers in Level 2 will include partially correct and basic diagrams which are not supported in any way by <u>analysis</u> of different characteristics but may just identify and/or explain them. A soon as a relevant characteristic of monopoly is explained then this reaches basic L2 (5).
		Level 1 [1–4]		Answers in level 1 will simply identify and develop the basic definition of what a monopoly

Question	Syllabus Ref		Mark	Rationale
		For a knowledge and understanding of what monopoly is.		is.
(b)		Discuss the effects of increased concentration in transport markets. Conventional economic theory suggests that greater concentration may well be accompanied by a reduction in competition in markets, but clearly this depends upon the number and size of firms remaining in the market.	[20]	NOTE: ANSWERS WHICH DISCUSS IMPACT IN TERMS OF INCREASED COMPETITION RECEIVE 15 MARKS MAXIMUM For level 4 there must be a two sided discussion – in other words, analysis of why increased concentration is bad and also good.
		Relevant analysis may well take the form of looking at monopoly or oligopoly market structures and analysing the possible drawbacks of such structures in terms of economic inefficiency before looking at what the positive effects could be, for example the benefits from economies of scale (natural monopoly), dynamic efficiency gains, the use of supernormal profits for investment purposes and also supernormal profits providing an incentive to innovate.		In other words, Level 4 answers will develop both sides of the issue by looking at the advantages and disadvantages of greater concentration. Relevant judgement MUST already be based upon a two sided discussion. Possible judgement <u>could</u> include:
		Level 3 answers will be one sided answers which focus entirely on the benefits or drawbacks of increased concentration only. Accept relevant theory of the firm for Level 3 in analysing whether or not increased concentration will be good or bad.		 the impact of increased concentration may depend upon the extent to which transport markets are regulated the impact may depend upon the extent to which existing dominant firms fear entry by other firms (ie degree of contestability)
		Level 4 (a) [16–20] For a discussion which includes a judgement as to the impact of increased concentration in transport markets. Relevant comments may include the fact that it depends upon the extent		 the impact may depend upon exactly how many firms there are in the market. (For example, despite a rise in concentration, if there are still a number of firms fiercely

Question	Syllabus Ref	Expected Answer	Mark	Rationale
		of increased concentration and also the existing threat of possible entry by new firms (suggesting that there is a contestable market) and the nature of remaining competition in the market (ie price or non price) Level 4 (b) [11–15]		competing against each other then a more competitive market structure may exist in reality).
		For a discussion of the impact of increased concentration which makes no attempt at developing judgement. A two sided answer.		14-15 marks will be rewarded where there is <u>clear</u> , two sided discussion
		In other words, answers in this level will look at why increased concentration is both good and bad OR may take the form of a theoretical answer looking at why perfect competition is good and monopoly is bad.		11-13 marks will be awarded where there is <u>basic</u> or unbalanced discussion with the second side of the argument developed only in a very basic manner
		Complex ideas have been expressed clearly and fluently using a style of writing which is appropriate to the complex subject matter. Sentences and paragraphs, consistently relevant, have been well structured, using appropriate technical terminology. There may be few, if any, errors of spelling, punctuation and grammar.		
		Level 3 [5–10]		Accept accurate theory of the firm diagrams as relevant analysis to reach Level 3.
		For analysis of the benefits OR costs of increased concentration. This answer may well be based upon 'theory of the firm', analysing monopoly or oligopoly markets and the impact that different market structures will have.		For 8-10 marks candidates have to analyse more
		Any relevant economic analysis should be rewarded here.		than one effect of increased concentration (note that analysis of different types of efficiency are classed as separate points).
		NOTE: an answer which simply states that "prices rise" does not get L3 but when explained i.e. why this occurs will get L3.		5-7 marks: basic analysis of only one effect of

Question	Syllabus Ref	Expected Answer	Mark	Rationale
Question		Expected Answer Relatively straightforward ideas have been expressed with some clarity and fluency. Arguments are generally relevant, though may stray from the point of the question. There will be some errors of spelling, punctuation and grammar, but these are unlikely to be intrusive or obscure meaning. Level 2 [3–4] For an application of knowledge and understanding of the impact of greater market concentration Answers in this level may well simply identify that greater market concentration suggests that there will be less competition OR a more monopolistic or oligopolistic market structure. Answers at the top of this level will develop some understanding of these market structures without actually analysing the impact of changes. Some simple ideas have been expressed in an appropriate context. There are likely to be some errors of spelling, punctuation and grammar of which some may be noticeable and intrusive Level 1 [1–2] For knowledge and understanding of what market concentration refers to.	Mark	Rationale increased concentration Answers in this level may simply identify different characteristics of market structures or make relevant application to market structures within transport. For example, bus provision is usually highly concentrated in the hands of a few oligopoly providers.
		Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar which will be noticeable and intrusive. Writing may also lack legibility.		

Question	Syllabus Ref	Expected Answer	Mark	Rationale
3 (a)		 Analyse the characteristics of a contestable market. A contestable market is one where potential firms can influence the behaviour of existing firms and where there is always the threat of possible entry. Relevant characteristics include: A lack of barriers to entry A lack of barriers to exit A market which is open to 'hit and run' competition The absence of sunk costs (according to Baumol, this is a crucial characteristic) Firms have access to the same type of technology A lack of brand loyalty All firms having the same cost structure (ie an absence of economies of scale) Lack of collusion (i.e. no price fixing) Perfect knowledge exists The number of firms in the market is not important / is irrelevant Only makes normal profit in the long run 	[15]	A response which simply identifies several different characteristics of a contestable market will gain Level 2. For Level 3, candidates will be expected to analyse in a basic manner how the given characteristic results in the market being contestable. <u>For example</u> , "Contestable markets are characterised by a lack of brand loyalty (L2) meaning that existing firms in the market have no hold over customers and therefore new firms entering the market can gain market share (L3)" OR "There is a lack of barriers to entry (L2) which means that it is easy for firms to enter the market (L3)" In other words, to move from L2 to L3 and to gain analysis marks there must be very clear explanation of why the characteristic results in a contestable market occurring. To gain 13-15 marks - very good analysis (two or more characteristics are analysed) 11-12 marks - good analysis (one characteristic analysed clearly OR two characteristics analysed in a basic manner) 9-10 marks - basic analysis (one factor analysed
				in a basic manner)

Syllabus Expected Answer Ref	Mark	k Rationale	
	 Level 3 [9–15] For a clear explanation of what contestability is which clearly <u>analyses</u> the role played by these characteristics. In other words demonstrating how these factors result in markets being contestable. For 13+ marks answers will be expected to analyse two or more characteristics Level 2 [5–8] For an application of knowledge and understanding of what contestability is. Answers in this level may well provide simple, accurate definitions which make reference to examples of barriers to entry but fail to analyse and explain how these lead to reduced contestability Level 1 [1–4] For knowledge and understanding of what contestability is. For example, a relevant example of a barrier to entry without any further development/explanation. Answers towards the top of this level may provide simple examples of contestable markets. 		FOR L3 accept diagrams but only those which show the clear transition between short and long run with abnormal profit being competed away to just normal profit. Any answer which correctly identifies / explains one relevant characteristic but fails to analyse it will gain 5 marks. If two or more characteristics are identified but not analysed then 7-8 marks will be rewarded.

Question	Syllabus Ref	Expected Answer	Mark	Rationale
(b)		Discuss the extent to which the deregulation of buses in the UK has been beneficial.	[20]	
		Bus deregulation involved the removal of legal barriers to entry which required firms to prove that there was a "need" for additional services to be provided. By removing this barrier to entry, the government hoped that increased competition would improve service quality, reduce fares and increase bus usage.		NOTE: deregulation did not occur in London. Following deregulation throughout the rest of the UK, London's buses were franchised out.
		Benefits of bus deregulation include:		Award Level 3 for one sided economic analysis
		Possible efficiency gains (private firms have the incentive to lower costs of production; for example, running smaller 'Hopper' style buses with some estimates suggesting that costs have fallen by as much as 30%).		BUT if just simple factual knowledge of deregulation is given then just award Level 2.
		More buses are running and the number of kilometres travelled by buses since deregulation has increased (although these often involve the duplication of existing services on profitable routes).		
		Finally, economic theory suggests that where there is greater competition then there will also be a greater incentive to innovate and to compete on both price and non-price methods.		
		The potential drawbacks to deregulation include:		
		What is the resulting market structure in the bus industry? Usually oligopoly or, in some cases, duopoly. In these circumstances, consumers do not necessarily benefit with resulting higher fares (loss of consumer surplus?).		

Question	Syllabus Ref	Expected Answer	Mark	Rationale
		A wider issue remains that deregulation has arguably made it more difficult to achieve a national, integrated solution to road congestion as there are now many more private sector firms involved in the bus industry. Whilst there has been increased competition in some parts of the country, this has tended to be only short term and the bus industry has moved towards an oligopoly market structure with a few large private sector firms dominating the market. With predatory pricing and the existence of significant economies of scale benefiting existing dominant firms, significant barriers to entry exist and, therefore, the bus industry is less contestable than theory suggests. Level 4 (a) [16–20] For a discussion which includes a judgement as to how beneficial deregulation has been. The best answers may conclude that the impact of deregulation varies from one part of a country to another depending upon how contestable local markets have become. Level 4 (b) [11–15]		Possible judgement could include: The impact of deregulation varies from area to area and totally depends upon the extent to which it has resulted in greater competition in that locality The impact of deregulation will depend upon the extent to which other barriers to entry (e.g. predatory pricing) remain.
		For a basic discussion of how beneficial deregulation has been but lacking relevant judgement as to overall whether it has been beneficial or not		Two sided answers which analyse whether deregulation has and has not been successful.
		Complex ideas have been expressed clearly and fluently using a style of writing which is appropriate to the complex subject matter. Sentences and paragraphs, consistently relevant, have		14-15 marks will be rewarded where there is balanced discussion
		been well structured, using appropriate technical terminology.		11-13 marks where there is unbalanced or bas

Question	Syllabus Ref	Expected Answer	Mark	Rationale
		There may be few, if any, errors of spelling, punctuation and grammar. Level 3 [5–10]		discussion.
		For one-sided analysis of the impact of deregulation. Answers might analyse the theoretical benefits of deregulation		8-10 marks will be awarded where more than one impact is analysed (note that different types of economic efficiency are separate factors)
		(in terms of greater competition arising from the removal of barriers to entry) or analyse the disadvantages, perhaps with reference to monopoly / oligopoly markets.		5-7 marks for analysis of only one impact (for example, simple recognition that monopoly / oligopoly may result in prices rising = 5 marks)
		Relatively straightforward ideas have been expressed with some clarity and fluency. Arguments are generally relevant, though may stray from the point of the question. There will be some errors of spelling, punctuation and grammar, but these are unlikely to be intrusive or obscure meaning.		oligopoly may result in prices fising = 5 marks)
		Level 2 [3–4] For an application of knowledge and understanding of the impact of deregulation. Answers in this level will <u>explain</u> the theory of deregulation and show some knowledge of the policy but not analyse the benefits or drawbacks at all. For example, may just recognise that the market has become oligopolistic.		Level 2 responses will fail to analyse the impact of deregulation but will develop how deregulation occurred OR identify a possible benefit (eg lower costs / increased service provision) OR a possible drawback without analysing it.
		Some simple ideas have been expressed in an appropriate context. There are likely to be some errors of spelling, punctuation and grammar of which some may be noticeable and intrusive.		
		Level 1 [1–2] For knowledge and understanding of what deregulation is but lacking any relevant explanation of this in practice. Answers in this level will may consist only of a simple definition which lacks any clear development/explanation. Some simple ideas have been expressed. There will be some		

C	Question		n	Syllabus Ref	Expected Answer	Mark	Rationale
					errors of spelling, punctuation and grammar which will be		
					noticeable and intrusive. Writing may also lack legibility.		

Question	Syllabus Ref	•	Mark	Rationale
Question 4 (a)		Expected Answer Analyse, using a diagram, how the existence of negative externalities results in market failure. In a free market economy, producers only take into account the private costs of production and, therefore, over-produce goods because they totally ignore external costs. This over-production results in too many of these goods being supplied by firms and, therefore too many scarce resources being used in production. Hence, there is allocative inefficiency and the resulting misallocation of resources results in market failure. $\frac{RICE}{f_2} = \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_1} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_1} \int_{G_1} \int_{G_2} \int_{G_1} \int_{G_$	Mark [15]	 Any diagram which is perfectly accurate will immediately gain 9 marks without there being any written analysis. A diagram with one minor error e.g. no labelling of axes OR no labelling of equilibrium. Points = 8 marks. A diagram with two minor errors = 7 marks. To gain 5 marks (ie Level 2) for the diagram <u>it</u> <u>must show MPC/MSC correctly</u> (or if negative ext. benefit approach taken, MPB/MSB) NOTE: written analysis can only gain L3 if there is a partially or fully correct diagram. <u>Relevant analytical points needed include</u>: Consumers ignore such external costs / do not take into account full social costs / only take into account private costs (L2) and therefore price is too low (L3). [Accept clear reference to a diagram showing P1/PFM is below P2/Ps]. Over-consumption occurs (L2) because price is too low and hence demand is higher (L3) OR because consumers
		 BUT labelling of Q2 must lie to left of Q1 and, likewise, P2 must be above P1 (ALTERNATIVELY, accept a diagram illustrating the negative) 		ignore external costs / don't pay the true costs and demand more (L3). 3. This results in allocative inefficiency / a
		external benefit approach with MPB>MSB)		misallocation of resources (L2) as too

Question	Syllabus Ref	Expected Answer	Mark	Rationale
		Level 3 [9–15] For an accurate diagram accompanied by a clear explanation of why market failure arises. Candidates recognise that there will be over-consumption which results in allocative inefficiency and a misallocation of resources.		many scarce resources are used up in production (L3) OR P>MC (L3). 13-15 marks: An accurate diagram plus good analysis of two points.
		For 13+ marks candidates will be expected to clearly analyse why two factors arise.		12 marks: an accurate diagram with good analysis of one point OR a partially accurate diagram with good analysis of two points.
		For an application of knowledge and understanding of why market failure arises from negative externalities.		10-11 marks: An accurate diagram with basic analysis of one factor OR a partially correct
		7-8 marks will be awarded for a partially correct diagram accompanied by <u>identification</u> of the fact that there will be over- consumption OR allocative inefficiency OR a misallocation of		diagram with good analysis of one point.
		resources but lacking any analysis of these points. 5-6 marks for a partially correct diagram (which as a minimum shows MPC/MSC correctly) with no relevant factors identified in the written work.		9 marks: an accurate diagram with no relevant analysis OR a partially accurate diagram with basic analysis of one factor.
		A maximum of 6 marks will be received by an answer <u>without</u> a diagram.		
		A diagram which fails to clearly identify MPC/MSC (or S1/S2) but includes written analysis can gain 9 marks maximum.		
		Level 1 [1–4] For a knowledge and understanding of why market failure arises. Answers in this level will show some understanding of what a negative externality is but will fail to develop this at all. A basic definition will receive no more than 2 marks. A more		

Question	Syllabus Ref	•		Rationale	
		detailed definition referring to SC>PC can gain up to 4 marks.			
(b)		 Discuss the effectiveness of regulation as a solution to the market failure arising from increased transport use. Possible examples of regulation include stringent controls on car emissions, restrictions on car use and the ultimate sanction of banning cars in certain parts of urban areas. Real world examples include MOT's and the London Emissions Zone. All of these policies are backed by the force of law and, therefore, can result in individuals being fined / prosecuted. Discussion of regulation could involve reference to: The costs of policing and enforcing such regulations. This could be extremely high and, therefore, could involve a considerable opportunity cost Revenue fails to produce a revenue stream for the government and in fact costs money to enforce The difficulties of deciding what exact level of regulation to introduce. For example, what should the legal maximum level of car emissions be? What standard should the government set? How big should the fines be? If they are set too low, then the regulation is a non-market based solution The need for regulations to be introduced on an international basis to avoid companies moving overseas to avoid tougher regulations. 	[20]	Level 4 answers must include clear, two sided analysis of regulation itself. DO NOT accept discussion of other methods of government intervention. Accept tradeable permits as a form of regulation. Relevant analysis requires reference to how permit system operates. Accept maximum prices (price caps) as relevant examples as these could be applied to public transport. Therefore relevant analysis here is the aim to lower prices / extend demand. Given the legislative basis to road pricing, award a maximum of 7 marks where candidates discuss road user charging / road pricing (to reach 5-7 marks there must be clear analysis of how it is used).	

Question	Syllabus Ref	s Expected Answer		Rationale	
		 Regulations may create barriers to entry Level 4 (a) [16–20] For a discussion which includes a judgement as to how effective regulation would be in correcting market failure. This judgement will be based upon clear, two sided discussion. Level 4 (b) [11–15] For discussion of the effectiveness of regulation - a two sided answer but lacking relevant judgement. Complex ideas have been expressed clearly and fluently using a style of writing which is appropriate to the complex subject matter. Sentences and paragraphs, consistently relevant, have been well structured, using appropriate technical terminology. There may be few, if any, errors of spelling, punctuation and grammar. 		 Relevant judgement may include: The effectiveness of regulation ultimately depends upon the extent to which it is enforced by the authorities The effectiveness may also depend upon the degree to which there is international co-operation between countries in introducing this Effectiveness of regulation will be enhanced by combining it with other measures as part of an integrated solution 14-15 marks: clear, two sided discussion 11-13 marks: basic / unbalanced discussion 	
		 Level 3 [5–10] For analysis of a one-sided answer. In other words, analysis of how regulation works OR the limitations of it. For example, faced with the threat of being fined, an individual may change behaviour and therefore, the negative externality can be reduced. In other words, fines/prosecution provide an incentive for individuals to change their behaviour. Accept analysis in terms of supply curve shifting left only when explained in terms of regulation increasing costs of production therefore resulting in a rise in price. Relatively straightforward ideas have been expressed with 		 8-10 marks: clear analysis of one side e.g. candidates clearly analyse <u>how</u> fines and the threat prosecution may result in individuals changing their behaviour e.g. fines provide a deterrent to law breaking OR provide clear analysis of the limitations of regulation 5-7 marks: basic analysis of one side. For example, regulation may reduce market failure due to fines resulting in changed behaviour OR revenue from regulation may be spent on subsidising public transport, hence switching modes 	
		some clarity and fluency. Arguments are generally relevant, though may stray from the point of the question. There will be		OR basic analysis of one limitation	

Question Syllabu Ref		Expected Answer	Mark	Rationale
		some errors of spelling, punctuation and grammar, but these are unlikely to be intrusive or obscure meaning. Level 2 [3–4]		Relevant examples of regulation in transport.
		For an application of knowledge and understanding of how regulation could be used.		One relevant example of regulation = 3 marks but can gain 4 marks if explained.
		Simple examples of regulation will be given and explained without any clear analysis of how regulation works in providing an incentive for individuals to change their behaviour.		
		Some simple ideas have been expressed in an appropriate context. There are likely to be some errors of spelling, punctuation and grammar of which some may be noticeable and intrusive.		Simple definitions of regulation only.
		Level 1 [1–2] For knowledge and understanding of what regulation is, lacking any relevant application, analysis or evaluation.		
		Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar which will be noticeable and intrusive. Writing may also lack legibility.		

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Mark Scheme

June 2010

Assessment Objectives Grid (including QWC)

Question	AO1	AO2	AO3	AO4	Total
1 (a) (i)	1	1			2
(a) (ii)	2	2			4
(b)	1		2	3	6
(c) (i)	2				2
(c) (ii)		1			1
(c) (iii)		2			2
(d)			3	5	8
2(a)/3(a)/4(a)	4	4	7		15
2(b)/3(b)/4(b)	2	2	6	10	20
Totals	12	12	18	18	60

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