



**GCE**

**Economics**

Unit **F584**: Transport Economics

Advanced GCE

**Mark Scheme for June 2014**

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All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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F584

Mark Scheme

June 2014

## Annotations

Please annotate **every** response, even if no credit is given.

Annotation	Meaning
	Blank Page – this annotation <b>must</b> be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
	Tick
	Cross
	Unclear
	Benefit of doubt
	Effective evaluation
	Irrelevant
	Level 1
	Level 2
	Level 3
	Level 4
	Not answered question
	Noted but no credit given
	Too vague
	Development of point

**Highlighting** is also available to highlight any particular points on the script.  
 'SEEN' to be inserted on every blank page

F584/01

Mark Scheme

June 2014

**Subject-specific Marking Instructions**

Some questions may have a 'Level of Response' mark scheme.

The following guidelines on the **quality of written communication** are embedded into the Levels of Response mark scheme used for part (b) of the essays and should be applied consistently between the different essays:

- Level 4:** 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:** 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:** 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:** Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar.

F584/01

Mark Scheme

June 2014

Question			Answer	Marks	Guidance
1	(a)	(i)	<p><b>Using Fig. 1, identify which decade saw the largest percentage increase in Britain's motorway network.</b></p> <p>1960s 1960-70</p>	1	<p>For one mark. Do <b>not</b> accept 1960 or 1970 <b>Annotation :</b> <b>Tick or Cross</b></p>
		(ii)	<p><b>State and explain one external benefit of expanding Britain's motorway network.</b></p> <p>Indicative content:</p> <p>Possible external benefits of expanding the motorway network include:</p> <ul style="list-style-type: none"> <li>• increased employment in the local area.</li> <li>• local multiplier effects</li> <li>• increased FDI</li> <li>• increased trade to local businesses</li> </ul> <p>Exemplar response: Local businesses will benefit (1) from increased trade (1) OR as they have had nothing to do with the decision to build the motorway (1)</p> <p>Reduced congestion (0) means there is less pollution for local residents (2)</p> <p>Do not award reduced congestion, reduced pollution, and reduced time loss without reference to a third party. The above answer would be zero without the reference to local residents. The third party is not the motorist.</p>	2	<p>One mark for a correct identification and one mark for an explanation of an external benefit.</p> <p>NOTE: this is a (1+1) question.</p> <p>Candidate must make reference to third party or provide an example of a third party e.g. firms, the economy, the area, NHS etc. to assess any marks</p> <p>Development/explanation can be either in terms of why it is an external benefit or what causes the external benefit.</p> <p><b>Annotation:</b> <b>Tick per mark</b></p>
	(b)	(i)	<p><b>Lines 17-18 state that 'cost-benefit analysis favours these schemes (to improve roads) more highly than national projects such as high speed rail links'. What does this statement mean?</b></p> <p>For a clear recognition that the net social benefit figure / NPV/CBA ratio/rate of return/net benefit to society resulting from a cost-benefit analysis would <b>be higher/greater</b> for local road projects than it would be for national, high profile projects, such as high-speed rail.</p>	1	<p>For one mark.</p> <p>Do <b>not</b> accept higher benefit/positive result</p> <p><b>Annotation:</b> <b>Tick or Cross or TV</b></p>

F584/01

Mark Scheme

June 2014

Question	Answer	Marks	Guidance
	<p>(ii) <b>State and explain two problems of using cost-benefit analysis when deciding whether or not to build a new road.</b></p> <p>Indicative content:</p> <ul style="list-style-type: none"> <li>• difficulty in assigning monetary values</li> <li>• what costs/benefits to include</li> <li>• how to value future costs/benefits (accept what discount rate should be applied)</li> <li>• the time/cost of undertaking the CBA</li> <li>• possible subjectivity in the process</li> <li>• what weightings should be attached to different costs and benefits</li> <li>• difficulties in forecasting future benefits</li> </ul> <p>Exemplar responses:</p> <p>'One problem will be attaching accurate monetary values to costs/benefits (1). This is because there are many of the issues non-monetary issues such as environmental damage/pollution/destruction of the green belt, etc. which are intangible (1).'</p> <p>'A further problem is the cost of undertaking cost-benefit analysis (1). Surveys need to be undertaken and investigations take time and also incur expense. As a result, cost-benefit analysis can be very expensive to undertake (1).'</p>	4	<p>One mark for each correct identification up to a maximum of two identifications, plus a further one mark for each of two explanations.</p> <p>NOTE: this is a (1+1) x 2 question.</p> <p>Do <b>not</b> accept repetition for the second identification</p> <p>Watch out for answers which have more than 2 identification points.</p> <p>To get the second mark here, more detailed explanation needed than simply stating for example that 'it is inaccurate' or 'leads to a wrong decision'.</p> <p>Do <b>not</b> accept simple terms such as 'factors' need explicit reference to cost and/or benefits or types of costs and benefits</p> <p><b>Annotation:</b> <b>Tick per mark</b></p>

F584/01

Mark Scheme

June 2014

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	(iii)	<p><b>Explain one difference between the approaches of the public and private sectors to decision making about major infrastructure investment projects.</b></p> <p>Indicative content: One mark for a correctly identifying the main difference e.g. profit motivation/commercial return for private sector or quality of provision/social benefit for public sector. Up to two further marks for developing this and drawing out the contrast between the two approaches.</p> <p>Exemplar responses: A private sector approach would be more profit orientated (1). Private sector firms will want to maximise profits in order to satisfy shareholders (1), while the government will, in theory, be more concerned about service quality and improving transport services (1). A public sector approach could be to improve service provision (1) as this would increase allocative efficiency (1) while the private sector may only be concerned with profit (1) OR sales maximisation (1) etc.</p>	3	<p>Up to three marks, but for full marks there needs to be clear contrast between the aims of public and private sector decision making processes.</p> <p><b>Annotation: tick per mark</b></p>
	(c)	<p><b>What is meant by the 'hypothecation of tax revenue' (line 28)?</b></p> <p>Exemplar response: Hypothecation involves government tax revenues being spent/re-invested on some other purpose/specific area or being 'ring-fenced'. Accept tax revenue spent on the same area in which it was raised.</p>	1	<p>Accept "a situation where revenue from a tax is directly allocated to another purpose".</p> <p>Accept a relevant example, e.g. VED revenue being spent on road maintenance and building projects.</p> <p><b>Annotation: Tick or cross or TV</b></p>

F584/01

Mark Scheme

June 2014

Question	Answer	Marks	Guidance
(d)	<p><b>Comment on the effectiveness of tolls on new roads (road user charging) in reducing market failure.</b></p> <p><u>Two marks are available for analysis of how tolls on new roads (road user charging) would work:</u></p> <p>For the first mark:</p> <ul style="list-style-type: none"> <li>• road user charging makes road users take into account the full social costs of their actions</li> <li>• road users are made to pay a charge which equals the external costs of their actions</li> <li>• by charging consumers they will internalise the externality</li> <li>• private costs increase (1)</li> </ul> <p>Accept relevant diagrams for this mark: e.g. correct leftwards shift of the supply curve and new and old equilibriums, indicating higher price and lower equilibrium quantity.</p> <p>For second mark must make explicit reference</p> <ul style="list-style-type: none"> <li>• to reducing overconsumption</li> <li>• achieving allocative efficiency</li> <li>• reduce welfare loss</li> </ul> <p><u>Up to three marks are available for evaluation:</u></p> <ul style="list-style-type: none"> <li>• PED: if inelastic, then there will be little change in congestion</li> <li>• size of charge: too low and it will be less effective</li> <li>• need for an alternative to be in place, i.e. substitute to cars</li> <li>• regressive nature: road pricing has a greater impact on low income groups</li> <li>• possible displacement: road pricing is only effective if introduced on every road. Otherwise, drivers switch to free roads.</li> <li>• Difficult to set correct value of toll (road user charge)</li> </ul> <p><u>Alternatively one mark is available for a clear conclusion/judgement as to whether or not road pricing is effective</u></p>	5	<p>Up to five marks: NOTE: this is a 2+2+1 OR 2+3 question.</p> <p><b>Needs analysis of how road user charging would work before credit can be given for problems of road user charging</b></p> <p>One point of criticism which is clearly developed can gain two marks.</p> <p><b>Annotation:</b> <b>Ticks per point of analysis (max 2)</b> <b>L4 per evaluative point or development (max 3)</b></p>



F584/01

Mark Scheme

June 2014

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(e)	<p><b>Discuss whether increasing the role of the private sector will be beneficial to the road transport market.</b></p> <p><u>Up to three marks are available for relevant analysis of the benefits of increasing the role of the private sector:</u></p> <ul style="list-style-type: none"> <li>• increased competition (accept reference to firms competing for franchises OR simply more firms competing against each other on transport routes)</li> <li>• accept development of increased competition in terms of lower prices OR increased innovation OR increased productive/allocative/dynamic efficiency or reduced X-inefficiency.</li> <li>• reduced cost to the taxpayer (no longer supporting public sector/ nationalised services)</li> <li>• possible revenues gained by the government through the privatisation process.</li> <li>• Increased investment/greater access to finance</li> <li>• Improved management/expertise</li> </ul> <p><u>A further three marks are available for discussion of possible drawbacks including:</u></p> <ul style="list-style-type: none"> <li>• increasing the role of the private sector has not necessarily increased competition. Hence oligopoly/duopoly or even a private sector monopoly may result which is arguably worse than a public sector monopoly.</li> <li>• possible loss of economies of scale/natural monopoly: a larger number of competing firms may well result in each firm incurring higher ACs – hence private firms may be productively inefficient.</li> <li>• private sector firms may well be more concerned with maximising profits than providing a high quality service (possible allocative inefficiency?).</li> <li>• private sector firms may well ignore external costs and hence market failure may result from increased negative externalities.</li> <li>• the private sector may well involve duplication of existing services – hence allocative inefficiency.</li> <li>• Goes against concept of an integrated transport policy</li> </ul>	8	<p>Up to eight marks: This is a 3+3+2 question.</p> <p>The final two marks are only available if a two sided analysis is provided.</p> <p>Accept analysis on both sides if reference is made to PPP/PFI</p> <p>Accept reference to concept of roads as public/quasi-public goods as evaluation</p> <p>Do not allow arguments specifically referring to transport markets other than road</p> <p>Any one point of analysis or counter-analysis which is clearly developed can gain up to three marks maximum. Alternatively, the identification of three separate but relevant points of analysis or counter-analysis can also gain all three analysis marks.</p> <p><b>Tick per point of analysis (max 3)</b>  <b>L4 per point counter-analysis (max 3)</b>  <b>EE for judgement or developed statement (max 2)</b></p>

F584/01

Mark Scheme

June 2014

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	<p>A further two marks are available for a <u>conclusion/judgement</u>. These marks are awarded as follows:</p> <p>One mark for a simple statement – for example:</p> <ul style="list-style-type: none"> <li>• “increasing the private sector has been beneficial”.</li> <li>• “overall, increasing the size of the private sector has not been beneficial”</li> </ul> <p>Two marks for a developed statement – for example:</p> <ul style="list-style-type: none"> <li>• increasing the role of the private sector may well be beneficial as long as significant economies of scale are not lost by road transport firms</li> <li>• increasing the role of the private sector, overall, may well be beneficial BUT this depends upon how big the scale/size of increase in there is/how much the private sector grows by.</li> </ul>		

F584/01

Mark Scheme

June 2014

Question		Answer	Marks	Guidance	
				Content	Levels of response
2	(a)	<p><b>Analyse the level of economic efficiency achieved in the short run in a monopolistically competitive transport market.</b></p> <p>Candidates need to analyse why SR monopolistic competition is inefficient/efficient.</p> <p><b>Relevant analysis of types of economic inefficiency could include:</b></p> <p>Allocative inefficiency arises (L1). This is usually achieved where <math>P=MC</math> (L2) but in the case of monopolistic competition this is NOT achieved (basic L3). If illustrated with a diagram, with explicit written reference to production not being where <math>P=MC</math>, then this achieves (good L3). (diagram only L2).</p> <p>Productive inefficiency arises (L1). This is usually achieved where production takes place at minimum AC (L2) OR where as few scarce resources are used in production as is possible (L2). In SR monopolistic competition, this is not achieved basic L3). If illustrated with correct SR diagram, with explicit written reference to not producing at minimum AC this achieves 'good' analysis. (diagram only L2)</p> <p>Accept reference to dynamic efficiency being improved (L1) if SR abnormal is invested (L2) to satisfy more consumer wants (L3) OR being alternatively dynamic inefficient (L1) due to lack of incentive to invest/innovate (L2) as profits will be competed away (L2) therefore consumer satisfaction not maximised (L3).</p>	15	<p><u>Analysis</u> of WHY monopolistic competition is economically inefficient = Level 3</p> <p><u>Identification AND explanation</u> of inefficiency = Level 2</p> <p><u>Identification</u> of type of inefficiency or characteristics of types efficiency and/or monopolistic competition = Level 1</p> <p><b>Annotation:</b> <b>Use L1, L2 or L3 where this has been awarded</b></p>	<p><b>Level 3: (9–15 marks)</b> For a clear analysis of why monopolistic competition is inefficient.</p> <p>13–15: <i>Very good analysis</i>: good analysis of two types of efficiency/inefficiency. 11–12: <i>Good analysis</i>: Good analysis of one types of efficiency/inefficiency OR basic analysis of two types. 9–10: <i>Basic analysis</i>: basic analysis of one type of efficiency/ inefficiency.</p> <p><b>Level 2: (5–8 marks)</b> For an application of knowledge and understanding of the circumstances under which allocative and/or productive inefficiency arise.</p> <p>7-8 marks: <i>Good application</i>: Two types of economic efficiency identified and explained. 5-6 marks: <i>Basic application</i>: 1 type of economic efficiency identified and explained.</p> <p>Answers in this level will identify and explain different types of economic efficiency only. In other words, such answers will describe the conditions under which economic efficiency/ inefficiency are achieved rather than analysing it.</p>

F584/01

Mark Scheme

June 2014

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					Content	Levels of response
						<p>As soon as both types of economic efficiency are identified and explained then 7-8 marks will be rewarded.</p> <p><b>Level 1: (1–4 marks)</b>                      For knowledge and understanding of type of inefficiency OR what economic efficiency or monopolistic competition is. Answers in this level will provide a basic definition of terms                      Simple definitions of ONE type of efficiency will receive 1–2 marks whilst answers which provide definitions of two types of efficiency will gain 3–4 marks.</p>

F584/01

Mark Scheme

June 2014

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	(b)	<p><b>Discuss the impact of a fall in market concentration on the economic efficiency of a transport market of your choice.</b></p> <p>Candidates are expected to analyse how a fall in market concentration may increase AND decrease economic efficiency. To reach Level 4, analysis of BOTH sides is needed.</p> <p>Candidates clearly should recognise that a fall in market concentration indicates that the market has become more competitive. MAXIMUM 15 for candidates failing to recognise this but economic analysis regarding competition/lack of competition is correct.</p> <p><b><u>Possible analysis of why a fall in market concentration does lead to economic efficiency includes:</u></b>  <b>Diagrams:</b> Accept theory of the firm diagrams showing a move AWAY from monopoly towards a more competitive market (perfectly competitive market). For L3 diagrams need developing in terms of EITHER:</p> <ul style="list-style-type: none"> <li>greater competition leads to lower ACs and, therefore, productive efficiency.</li> <li>competition leads to lower prices and, hence, allocative efficiency.</li> </ul> <p><b>Written analysis in terms of:</b> Increased productive efficiency may occur (L2) as firms want to produce at lowest AC in order to lower their prices (L3)</p>	20	<p><b>Level 4(a): possible judgement includes:</b></p> <p>The <u>size</u> of the fall in market concentration is important.</p> <p>It depends on the nature of the industry in question. For example, with higher levels of fixed costs, a fall in concentration may mean many smaller firms unable to exploit economies of scale – hence, inefficient.</p> <p>It is not the level of competition that is important in determining economic efficiency but the level of contestability.</p> <p>The impact on economic efficiency depends the role and quality of regulation</p> <p><b>Annotation:</b> <b>Use L1, L2, L3, L4 and EE (judgement to note L4a) where this is achieved.</b></p>	<p><b>Level 4(a): (16–20 marks)</b> For a discussion which includes a judgement as to whether or not a fall in market concentration will increase or decrease economic efficiency.</p> <p><b>NOTE: To reach L4 (a) balanced discussion must already be present.</b></p> <p>18-20 marks: <i>Balanced discussion with good judgement.</i> 16-17 marks: <i>Balanced discussion with weak judgement.</i></p> <p><b>Level 4(b): (11–15 marks)</b> For discussion of the impact of a fall in market concentration on economic efficiency.</p> <p>13-15 marks: <i>Balanced discussion</i> i.e. good analysis on both sides 11-12 marks: <i>Basic discussion</i> (analysis of one side is only basic)</p> <p><b>Level 3: (5–10 marks)</b> One sided analysis of the impact of a fall in market concentration. Accept relevant theory of the firm diagrams.</p> <p>8-10 marks: <i>Good analysis:</i> one sided analysis which is good. 5-7 marks: <i>Basic analysis:</i> one sided analysis which is only basic in nature.</p>

F584/01

Mark Scheme

June 2014

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				Content	Levels of response
		<p>Increased allocative efficiency (L2) as firms want to sell at a price equal to MC (L3) OR firms want to sell exactly those goods and services which consumers demand in order to remain in business (L3).</p> <p>Reduced X-inefficiency (L2) as firms have to reduce costs to enable them to sell their products at the lowest possible prices. (L3).</p> <p>Increase consumer surplus (L2) as consumers benefit from lower prices due to increased supply (L3) increasing consumer welfare (L3)</p> <p><b>Possible analysis of why a fall in market concentration may not increase economic efficiency includes:</b></p> <p>Loss of economies of scale (L2). In markets where significant economies of scale exist then small firms will be unable to exploit the benefits of these and, hence, productive inefficiency results as firms produce at higher ACs (L3).</p> <p>Loss of natural monopoly(L2) resulting in loss of allocative or productive efficiency due to breaking up large scale production and benefits of EOS (L3)</p> <p>A fall in market concentration may result in firms trying to cut costs in order to compete – hence, possible rise in negative externalities (L2) and allocative inefficiency (L3).</p> <p>Possible loss of dynamic efficiency (L2). Smaller, competitive firms may well make smaller profits and, hence, have less to invest in research and development: hence, in LR there may be greater inefficiency. (L3).</p>		<p>Level 3: answers lacking relevant transport application will receive marks in the lower part of the band e.g. 8 marks instead of 10 OR 5 marks instead of 7.</p> <p>Level 2: answers in this level may simply recognise that a fall in market concentration will increase productive efficiency but fail to analyse why this is so.</p>	<p><b>Level 2: (3–4 marks)</b> For an application of knowledge and understanding of the impact of a fall in market concentration <u>but lacking any relevant analysis</u>.</p> <p><b>Level 1: (1–2 marks)</b> For knowledge and understanding of what market concentration OR economic efficiency are.</p> <p><i>Quality of Written Communication</i> is assessed in this question. Please see page 5 for guidelines.</p>

F584/01

Mark Scheme

June 2014

Question		Answer	Marks	Guidance	
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3	(a)	<p><b>Analyse negative externalities arising in transport markets.</b></p> <p><b>Relevant negative externalities include:</b></p> <ul style="list-style-type: none"> <li>• congestion/time delays</li> <li>• noise</li> <li>• increased pollution</li> <li>• increased accidents</li> <li>• blight</li> <li>• visual intrusion (accept any negative externalities associated with increased infrastructure to cope with increased traffic).</li> </ul> <p><b>Relevant analysis of these could include:</b></p> <p>Congestion (L1) results from transport markets as, with more and more vehicles on roads, journeys become slower (L2). This imposes a cost on other drivers who are already on roads OR to businesses which now are unable to deliver products on time, i.e. costs to third parties (L3).</p> <p>Noise pollution (L1) is imposed on those who live near to motorways and other transport infrastructure (L2) and represents a negative externality as these people had no role in the decision being taken and, hence, are innocent third parties (L3).</p> <p>Pollution (L1) has increased with the growth of transport markets, e.g. emissions from vehicles and airplanes (L2). This is imposed on those who live near motorways/airports and, therefore, represents a cost imposed upon an innocent third party (L3).</p>	15	<p><u>Analysis</u> of WHY each factor is a negative externality (i.e. why there is a negative impact upon a third party) = Level 3</p> <p><u>Identification AND explanation</u> of externalities = Level 2</p> <p><u>Identification</u> of externalities = Level 1</p> <p><b>Annotation:</b> <b>Use L1, L2 or L3 where this has been awarded</b></p>	<p><b>Level 3: (9–15 marks)</b> For a clear analysis of the negative externalities arising from transport markets.</p> <p>13 – 15: <i>Very good analysis</i>: good analysis of two or more negative externalities. 11 – 12: <i>Good analysis</i>: Good analysis of one negative externality OR basic analysis of two. 9 – 10: <i>Basic analysis</i>: basic analysis of one negative externality.</p> <p><b>Level 2: (5–8 marks)</b> For an application of knowledge and understanding of the negative externalities arising from transport markets.</p> <p>7-8 marks: <i>Good application</i>: 2 or more relevant externalities identified and explained. 5-6 marks: <i>Basic application</i>: 1 relevant externality identified and explained.</p> <p>Answers in this level will identify and explain relevant externalities but fail to analyse these in terms of why they are costs imposed upon third parties. In other words, such answers will describe the externality rather than analysing it.</p>

F584/01

Mark Scheme

June 2014

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			<p>Alternatively accept analysis of how negative externalities result in market failure</p> <p>External costs ignored OR full social costs not met (L1) Therefore under-priced and/or overconsumed (L2) And hence allocative inefficiency OR too many scarce resources used (L3)</p> <p>Accurate diagram (L2) – needs written comparison between allocative efficiency and market equilibrium for L3.</p>			<p>As soon as two or more externalities are identified and explained then 7-8 marks will be rewarded.</p> <p><b>Level 1: (1–4 marks)</b> For knowledge and understanding of what negative externalities are. Answers in this level will provide a basic definition in terms of SC&gt;PC or a cost to a third party.</p> <p>Simple definitions will receive 1–2 marks whilst answers which provide definitions and simple examples will gain 3–4 marks.</p>



F584/01

Mark Scheme

June 2014

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	(b)	<p><b>Discuss the effectiveness of using forecasts of transport trends to meet the future needs and requirements of transport markets.</b></p> <p>Candidates will be expected to analyse the methods or usefulness of forecasting to meet future needs and requirements and then analyse the limitations of these.</p> <p><b>Analysis of why forecasting is useful OR analysis of different methods of forecasting future trends include:</b></p> <ul style="list-style-type: none"> <li>• helps government make policy/resource allocation decisions (L2) improving allocative efficiency/best use of scarce resources (L3)</li> <li>• helps government make budgetary decisions (L2) by identifying projects with highest NPV (L3)</li> <li>• an important part of CBA (L2) enabling best use of scarce resources (L3)</li> <li>• helps government work towards a sustainable transport policy (L2) enabling better allocation of future resources</li> <li>• the government will use GDP data (L2) in order to forecast future demand for transport needs. This is because higher levels of GDP/ household income can be expected to lead to increased demand for goods and services (with transport being a derived demand) (L3). With higher incomes, people will buy more goods and services and, hence, more goods and services will need to be transported and delivered (L3).</li> </ul>	20	<p><b>Level 4(a): possible judgement includes:</b></p> <p>Whilst there are flaws with transport forecasting, this process is still incredibly important and therefore even if data is incorrect, it is better to have some data rather than none to base infrastructure planning on</p> <p><b>Annotation: Use L1, L2, L3, L4 and EE (judgement to note L4a) where this is achieved</b></p>	<p><b>Level 4(a): (16–20 marks)</b> For a discussion which includes a judgement as to the effectiveness of transport forecasting as a method of meeting future needs and requirements in transport markets.</p> <p><b>NOTE: To reach L4 (a) balanced discussion must already be present.</b></p> <p>18-20 marks: <i>Balanced discussion with good judgement.</i> 16-17 marks: <i>Balanced discussion with weak judgement.</i></p> <p><b>Level 4(b): (11–15 marks)</b> For discussion of the effectiveness of transport forecasting as a method of meeting future needs and requirements in transport markets.</p> <p>13-15 marks: <i>Balanced discussion</i> i.e. good analysis on both sides 11-12 marks: <i>Basic discussion</i> (analysis of one side is only basic).</p> <p><b>Level 3: (5–10 marks)</b> One sided analysis. In other words, analyses EITHER how different factors are used in order to establish forecasts OR the limitations of such factors.</p> <p>8-10 marks: <i>Good analysis:</i> one sided analysis which is good.</p>

F584/01

Mark Scheme

June 2014

Question			Answer	Marks	Guidance	
					Content	Levels of response
			<ul style="list-style-type: none"> <li>future transport needs and wants will also be forecasted using fuel prices (L2). Higher fuel prices may well mean that people look to public transport alternatives to car use and, therefore, switch to the cheaper public transport substitute, away from car use, thus reducing the demand for road use (L3).</li> <li>population growth will also be taken into account when deriving forecasts (L2). This is because, with increased population, there will be greater demand for goods and services/greater use of vehicles to commute to work and, hence, the derived demand for transport will increase (L3).</li> </ul> <p><b>Possible analysis of the problems of using such methods can take the form of EITHER analysing the flaws of using specific data OR the consequences of using flawed data. For example:</b></p> <p>Much of the data used is volatile and, therefore, unpredictable (L2). As a result, if incorrect data is used to put into the forecasts, then incorrect data will be gained from it (L3).</p> <p>Forecasting future data involves considerable uncertainty (L2) and, therefore, estimated levels of GDP/population growth/fuel prices may all be wrong. As a result, incorrect forecasts may be made and the wrong infrastructure provided (L3).</p> <p>If incorrect forecasts are made then the wrong infrastructure will be built (L2). This means that the future needs and requirements of both consumers and businesses will not be met (L3).</p>			<p>5-7 marks: <i>Basic analysis</i>: one sided analysis which is only basic in nature.</p> <p>(Answers which lack transport application will be at the bottom of the band i.e. either 5 or 8 marks)</p> <p><b>Level 2: (3–4 marks)</b> For an application of knowledge and understanding of which different factors are used in deriving forecasts of future transport demand e.g. ‘predict and provide’</p> <p><b>Level 1: (1–2 marks)</b> For knowledge and understanding of what forecasting is.</p> <p><i>Quality of Written Communication</i> is assessed in this question. Please see page 5 for guidelines.</p>

Question		Answer	Marks	Guidance	
				Content	Levels of response
4	(a)	<p><b>Analyse barriers to entry in the UK air transport market.</b></p> <p><b>Relevant barriers to entry include:</b></p> <ul style="list-style-type: none"> <li>• high set up costs (e.g. leasing of aircraft)</li> <li>• limited flight slots at airports (particularly at Heathrow)</li> <li>• brand loyalty of existing companies</li> <li>• sunk costs of entering the market (e.g. high advertising costs)</li> <li>• legal/health and safety barriers</li> <li>• economies of scale enjoyed by existing firms</li> <li>• possible limit pricing/predatory pricing of existing firms.</li> </ul> <p><b>Relevant <u>analysis</u> of these could include:</b></p> <p>High set up costs exist on entering the market (L1). For example, firms may incur significant costs from leasing aircraft which could well be substantial (L2). These costs will deter firms from entering the market as they simply may not have the funds to lease the aircraft (L3).</p> <p>Limited landing slots (L1) exist at certain airports; for example, Heathrow and Gatwick (L2). Hence, if firms are unable to access these landing slots then they will be unable to provide a service and will not enter the market (L3).</p> <p>Existing firms may enjoy large economies of scale (L1). For example, bulk buying of fuel or managerial economies, being able to employ specialist managers (L2). These firms will enjoy</p>	15	<p><u>Analysis</u> of WHY each factor is a barrier to entry (i.e. HOW each factor stops a firm entering the market) = Level 3</p> <p><u>Identification AND explanation</u> of barriers in the context of the UK air passenger market = Level 2</p> <p><u>Identification</u> of possible barriers = Level 1</p> <p>If not applied to air passenger market then give mark at the lower end of the band</p> <p><b>Annotation: Use L1, L2 or L3 where this has been awarded</b></p>	<p><b>Level 3: (9–15 marks)</b> For clear analysis of the different barriers to entry in the air passenger market in the UK.</p> <p>13 – 15: <i>Very good analysis</i>: good analysis of two or more barriers to entry in the air passenger market. 11 – 12: <i>Good analysis</i>: Good analysis of one barrier to entry OR basic analysis of two. 9 – 10: <i>Basic analysis</i>: basic analysis of one barrier to entry.</p> <p><b>Level 2: (5–8 marks)</b> For an application of knowledge and understanding of barriers to entry in the UK air passenger market.</p> <p>7-8 marks: <i>Good application</i>: 2 or more relevant barriers identified and explained. 5-6 marks: <i>Basic application</i>: 1 relevant barrier identified and explained.</p> <p>Answers in this level will identify and explain relevant barrier to entry but fail to analyse these in terms of how they stop firms from entering the air passenger market. In other words, such answers will describe the barrier rather than analysing it. As soon as two or more barriers are identified and explained then 7-8 marks will be rewarded.</p>

F584

Mark Scheme

June 2014

Question			Answer	Marks	Guidance	
					Content	Levels of response
			lower ACs and, hence, be able to lower prices below other firms – deterring them from entering the market (L3).			<p><b>Level 1: (1–4 marks)</b>                      For knowledge and understanding of what barriers to entry are. Answers in this level will provide a definition in terms of any obstacle to new firms entering the UK air passenger market.</p> <p>Simple definitions will receive 1–2 marks whilst answers which provide definitions and simple examples will gain 3–4 marks.</p>

F584

Mark Scheme

June 2014

Question		Answer	Marks	Guidance	
				Content	Levels of response
	(b)	<p><b>Discuss whether the UK government should raise indirect taxes, such as Air Passenger Duty, on all air travel in order to increase sustainability.</b></p> <p>Candidates will be expected to analyse how increases in indirect taxes, such as APD, could be classed as increasing sustainability and THEN analyse why such a policy may not increase sustainability.</p> <p><i>The key to this question is whether or not the issue of sustainability has been addressed. If not, then no matter how good the theoretical analysis of APD is, the answer is limited to a maximum of 15 marks.</i></p> <p><b>Possible analysis of why increasing indirect taxes, such as APD, could increase sustainability includes:</b></p> <p><b>Accept analysis and counter analysis of any indirect tax on air travel</b></p> <p><u>Written analysis of BOTH the following points:</u></p> <ul style="list-style-type: none"> <li>increased indirect taxes will force consumers to internalise their externalities/pay the full social cost of their actions/pay a tax equal to their external costs/increase private costs.(L2) Price rises (L2)</li> <li>this will reduce consumption OR reduce quantity demanded (basic L3) for less sustainable modes of transport OR encourage consumers to switch to less environmentally damaging modes of transport/modal switch. (good L3)</li> </ul>	20	<p><b>Level 4(a): possible judgement includes:</b></p> <p>Arguably other policies, such as subsidies to rail services will provide a better alternative to planes. As such, these subsidies could be a more effective solution as people would be more willing to use alternative modes of transport. As such, other policies may be more successful in achieving ‘modal switch’ towards more sustainable modes of transport.</p> <p><b>Annotation:</b>  <b>Use L1, L2, L3, L4 and EE (judgement to note L4a) where this is achieved</b></p>	<p><b>Level 4(a): (16–20 marks)</b>                      For a discussion which includes a judgement as to how increases in indirect taxes, such as APD, could be deemed to increase <b>sustainability</b>.</p> <p><b>NOTE: To reach L4 (a) balanced discussion must already be present.</b></p> <p>18-20 marks: <i>Balanced discussion with good judgement.</i>                      16-17 marks: <i>Balanced discussion with weak judgement.</i></p> <p><b>Level 4(b): (11–15 marks)</b>                      For discussion of the extent to which increases in indirect taxes, such as APD, could increase sustainability.                      13-15 marks: <i>Balanced discussion i.e. good analysis on both sides</i></p> <p>11-12 marks: <i>Basic discussion (analysis of one side is only basic).</i></p> <p><b>Level 3: (5–10 marks)</b>                      One sided analysis. In other words, analyses EITHER the fact that increases in indirect taxes, such as APD, will OR WILL NOT increase sustainability.</p> <p>8-10 marks: <i>Good analysis: one sided analysis which is good.</i></p>

F584

Mark Scheme

June 2014

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			<ul style="list-style-type: none"> <li>Hypothecation of tax revenue (L2) and <b>how</b> this either makes air travel more sustainable or encourages modal switch (L3)</li> </ul> <p><u>Accept diagrammatic analysis</u> AS LONG as the diagram is clearly explained/developed with reference to reduced quantity demanded for airplanes as a non-sustainable mode of transport. Diagram must clearly show the supply curve shifting to the left and increased equilibrium price/lower quantity.</p> <p><b>Possible analysis of why increased indirect taxes such as APD may not increase sustainability include:</b></p> <p>With price inelastic demand for some air flights (L2), there will be little change in demand and hence overconsumption will remain (basic L3). Therefore there will still be allocative inefficiency and a misallocation of resources – not a sustainable use of resources (good L3).</p> <p>Business may absorb the tax therefore not passed on to passenger (L2) Hence overconsumption remains (basic L3) and allocative inefficiency – not sustainable (good L3).</p> <p>Many people see that there are few substitutes to using planes (or reference to XED) and therefore regardless of the price, people continue to use them (L2). Hence overconsumption remains (basic L3) and allocative inefficiency – not sustainable (good L3).</p>			<p>5-7 marks: <i>Basic analysis</i>: one sided analysis which is only basic in nature i.e. not linked to sustainability.</p> <p>(Answers which lack transport application will be at the bottom of the band i.e. either 5 or 8 marks)</p> <p><b>Level 2: (3–4 marks)</b> For an application of knowledge and understanding of the impact of increased indirect taxes such as APD.</p> <p><b>Level 1: (1–2 marks)</b> For knowledge and understanding of sustainability/indirect tax.</p> <p><i>Quality of Written Communication</i> is assessed in this question. Please see page 5 for guidelines.</p>

F584

Mark Scheme

June 2014

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			<p>Setting tax at the correct level can be difficult (L2), setting the correct level of APD to equal external costs will be difficult (L2). As a result, the tax may well be too small/high and hence overconsumption remains or underconsumption results (basic L3) and allocative inefficiency – not sustainable (good L3).</p> <p>If only applied to the UK, passengers may fly from European airports (L2) therefore not causing a fall in quantity demanded and overconsumption remains (basic L3) and not allocatively efficient/sustainable (good L3)</p>			

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