

# GCE

# Economics

Advanced GCE

Unit F584: Transport Economics

# Mark Scheme for June 2013

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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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## Annotations

Annotation	Meaning
2	Unclear
110	Benefit of doubt
×	Cross
	Effective evaluation
R	Irrelevant
<b></b>	Level 1
<b>1</b> 2	Level 2
15	Level 3
14	Level 4
1777A	Not answered question
OCEN	Noted but no credit given
	Too vague
	Tick
<b>_</b>	Judgement/Level 4(a) awarded

### **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(b):** 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 which will be noticeable and intrusive. Writing may also lack legibility

C	Question	Answer	Marks	Guidance
1	(a)	What is meant by the term 'barriers to entry'?One mark for a clear definition in terms of a barrier being:"an obstacle to new firms entering a market" OR"something which stops/deters/restricts a firm from entering a market"	1	DO NOT accept examples of barriers to entry in a(i) DO NOT reward vague answers such as "something which protects a firm in a market".
	(b)	Apart from profit maximisation, state and explain three other objectives which a firm in a transport market may have.	6	NOTE: This is a 3+3 question with three knowledge marks and three application marks. One mark for identification of each objective One mark for explanation/development of this. For example:
		<ul> <li><u>Three marks for identifying alternative objectives including</u>:</li> <li>sales/output maximisation <b>OR</b> increased market share <b>OR</b> market dominance</li> <li>sales <u>revenue</u> maximisation (note: different to sales maximisation)</li> <li>satisficing</li> </ul>		<ul> <li>Explaining WHAT the objective is (NOT simply restating the objective) <b>OR</b></li> <li>Explaining WHY firms may target this objective <b>OR</b></li> <li>Explaining HOW firms may achieve this objective</li> </ul>
		<ul> <li>managerial objectives / utility maximisation</li> <li>long term growth <b>OR</b> growth maximisation</li> <li>the avoidance of risk</li> <li>survival / break even</li> <li>providing a high quality service / public service objectives / maximising customer satisfaction</li> <li>providing an environmentally sustainable service</li> </ul>		For example: "Firm may pursue profit satisficing (1). This is where a firm just makes enough profit to keep shareholders happy rather than maximising profits. (1)" "Sales revenue maximisation (1) may be an objective where firms are willing to lower prices in order to sell more products and raise revenue (1) <b>OR</b> where MR=0 (1)"
		Three marks are then available for explanation of these objectives (see right hand side)		"Sales maximisation (1) may be an objective where firms are willing to lower prices in order to increase market share (1) <b>OR</b> is achieved where a firm produces where $= AC=AR(1)$ " "Break even (1) is achieved where TC=TR (1)"

Question	Answer	Marks	Guidance
(c) (i)	<ul> <li>Using Fig.1, compare the changes in the Bus Service Operators' Grant received by bus firms in London to those received in the rest of England</li> <li><u>One mark for a clear statement that the Bus Service</u> Operators' Grant (BSOG) rose in both areas.</li> <li><u>One mark for stating EITHER:</u></li> <li>that proportionally the rise in London was greater (where it more than tripled compared to it not quite doubling in the rest of England)</li> <li>OR</li> <li>in absolute terms, London's grant has increased by less than the increase in grant to the rest of England.</li> </ul>	2	Direct comparison of the <b>CHANGE</b> is vital here. They must make direct comparisons in their answers and can't simply refer to the SIZE of the grant to London or the rest of England.
	Using a diagram, explain the impact of subsidies paid to producers, such as bus operators. <u>A correct diagram can gain two marks</u> : $\begin{array}{c} PRICE \\ P1 \\ P2 \\ \hline \\ P2 \\ \hline \\ Q1 \\ Q2 \\ \hline \\ Q1 \\ Q2 \\ \hline \\ Q1 \\ Q2 \\ \hline \\ \\ Q1 \\ Q2 \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	3	Award two marks for the diagram: • one for rightwards shift of the supply curve, labelled • one for correct labelling (old/new equilibriums plus axes). <u>One mark for explanation</u> for the clear, explicit reference to the fact that subsidies paid to producers will reduce their costs of production (OR reduced private costs).

uestion	Answer	Marks	Guidance
(d) (i)	<ul> <li>Comment on the extent to which local bus markets in the UK are oligopolies.</li> <li>Two marks for analysis: <ul> <li><u>a small number of firms</u> in the bus market (1) OR there are five large providers of local bus services OR there is a high concentration ratio/highly concentrated markets</li> <li><u>high barriers to entry exist</u> in bus markets (1) such as start-up costs (eg research/advertising costs), predatory pricing &amp; brand loyalty (1)</li> <li><u>Interdependence:</u> in some local bus markets, bus firms are interdependent (1)</li> <li><u>Collusion:</u> in some areas there is the possibility of collusion between local bus firms (1)</li> <li><u>Non price competition</u> is often preferred by bus firms (accept reference to price rigidity/rigidity)</li> <li><u>Non-profit maximisation</u> objectives pursued by bus firms (1) as they often firms just want to survive (1)</li> </ul> </li> </ul>	5 5	Guidance         NOTE: no marks for simply stating oligopoly characteristics         OR defining what an oligopoly market is. Answer MUST         apply oligopoly characteristics to the local bus market. <b>Two Analysis marks:</b> Award one mark for applying a relevant oligopoly         characteristic.         Then award a further mark for basic development of this.         Fe example:         "There are high barriers to entry (1), such as high set up costs (1)"         "The local bus market meets the characteristic of non-price competition (1) as firms have a kinked demand curve and v not want to compete on the basis of price (1)"
	<ul> <li>There is an element of price leadership with First Group being the largest provider of local services</li> <li>Two marks are then available for discussion including:</li> <li>Low barriers to entry after deregulation so not oligopoly (1) as new firms only need to register their companies to begin running bus services (1)</li> <li>Profit maximisation: most bus companies do profit max. unlike oligopoly firms.</li> <li>Price competition does exist unlike in oligopoly markets</li> <li>Number of firms: one firm dominates in some areas OR In other areas there are many firms (hence competitive/monopoly markets, not oligopoly).</li> <li>One mark for explicit judgement (see right hand side).</li> </ul>		Two Evaluation marks:         Award two marks for two separate evaluative statements O for one evaluative point which is well developed.         One Judgement mark (ONLY if two sided analysis already present):         Award one mark for a clear statement such as "Overall, for these reasons, the local bus market is/is not oligopolistic" O "whether or not it is an oligopoly depends upon the extent to which barriers to entry have been reduced"

Question	Answer	Marks	Guidance
	<ul> <li>Discuss the effects of a rise in competition on the level of efficiency in a transport market.</li> <li>Three marks for analysing why increased competition will increase efficiency: <ul> <li>increased productive OR allocative efficiency (1)</li> <li>increased dynamic OR X efficiency (1)</li> </ul> </li> <li>firms lower prices (1) and produce where P=MC (1)</li> <li>firms have an incentive to cut costs/lower AC's OR reduce the number of scarce resources used (1) in order to lower price and remain competitive (1)</li> <li>firms have to sell exactly what consumers want (1) OR increase the quality of the product (1)</li> <li>firms have incentive to invest in new capital OR research and development (1) in order to lower unit costs (1)</li> <li>firms have the incentive to innovate (1)</li> <li>with people switching to lower priced public transport (1) there will be less negative externalities (1)</li> <li>Three marks for analysing why increased competition will NOT increase efficiency:</li> <li>productive inefficiency (1). Firms lose economies of scale (1) with smaller firms not producing at lowest possible average cost (1)</li> <li>allocative inefficiency (1) with duplication of services on profitable routes (1) wasting of scarce resources (1)</li> <li>loss of dynamic efficiency (1) as smaller profits reduce investment in Research &amp; Development (1)</li> <li>less investment in technology (1) leading to older machinery &amp; more pollution (1)-allocative inefficiency (1).</li> <li>Two marks for explicit judgement (see right hand side)</li> </ul>	8	<ul> <li>NO marks for defining what competition is AND no marks for a general definition of economic efficiency which is not linked to rise in competition.</li> <li><u>Three analysis marks:</u>         EITHER three separate statements OR one point which is well developed. For example:         "Competitive markets lead to firms wanting to lower prices (1). In order to do this they need to lower costs of production (1) and hence will be more productively efficient (1)"         "In more competitive markets firms will lower prices (1) whice will encourage more people to switch to public transport (1) and hence reduce negative externalities, increasing allocative efficiency (1)"     </li> <li><u>Three evaluation marks:</u>         EITHER three separate statements OR one point which is well developed. For example:         "Firms may lose economies of scale (1) with smaller firms producing a lower level of output therefore incurring higher average costs (1). This leads to productive inefficiency (1)"     </li> <li><u>Award two Judgement marks (ONLY if two sided analysis already present):</u>         "Overall, increased competition will increase efficiency (1) b it all depends upon how long competition remains high for (1)ORwhich transport market is considered (1)     </li> </ul>

Q	uestion	Answer	Marks	Guidance		
				Content	Levels of response	
2	(a)	<ul> <li>Analyse the reasons why traffic congestion is an example of market failure.</li> <li>Possible analysis includes: <ul> <li>Consumers ignore external costs of their actions (L2) OR do not take in to account full social cost (L2) OR only pay private costs (L2). The resulting price is then too low (basic L3) which is lower than the social optimum price (good L3) OR this price doesn't equal / reflect full social cost (good L3).</li> </ul> </li> <li>Overconsumption/overproduction occurs (L2) because the good is too cheap (basic L3) OR it is underpriced (basic L3). Correct negative externality diagram with reference to quantity overconsumed (good L3) OR Consumers therefore do not pay the full price of the good (good L3) OR At the lower price, consumers buy more of the product than society would like them to (good L3).</li> <li>Allocative inefficiency occurs (L2) as scarce resources are wasted (basic L3). Too many scarce resources will be allocated towards producing these goods (good L3) OR society would prefer these scarce resources to be allocated to producing other goods and services (good L3).</li> </ul>	15	A list of negative externalities (eg greater pollution/loss of output/lower productivity etc) only gains Level 1 marks. To reach Level 2 there needs to be <u>explanation</u> of why market failure arises (e.g. over- consumption occurs). In order to reach Level 3 there needs to be clear <u>analysis</u> of why traffic congestion is an example of market failure. If no application to transport then mark at lower end of each band within the level (e.g. 13 / 11 / 9 / 7 / 5 / 3 / 1 marks). A negative externality diagram can be used to analyse factors but the diagram must be accurate.	<ul> <li>Level 3: (9–15 marks) Analysis of why traffic congestion represents market failure.</li> <li>13–15 marks: <i>Very good analysis</i>: Good analysis of two or more aspects</li> <li>11–12 marks: <i>Good analysis</i>: Good analysis of one OR basic analysis of two aspects.</li> <li>9–10 marks: <i>Basic analysis</i>: basic analysis of one aspect.</li> <li>Level 2: (5–8 marks) For an application of knowledge and under- standing: identifies relevant points eg overconsumption/allocative inefficiency.</li> <li>7–8 marks <i>Good application</i>: two or more relevant aspects identified and explained.</li> <li>5–6 marks <i>Basic application</i>: one factor identified and explained.</li> <li>5–6 marks <i>Basic application</i>: one factor identified and explained.</li> <li>S–6 marks <i>Basic application</i>: one factor identified and explained.</li> <li>Level 1: (1–4 marks) Knowledge &amp; understanding of negative externalities/market failure</li> <li>3–4 marks: clear definition in terms of SC&gt;PC OR a list of possible externalities arising from congestion.</li> <li>1–2 marks: basic idea that traffic congestion is an example of a negative externality OR definition of market failure only.</li> </ul>	

Question	Answer	Marks		Guidance
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(b)	<ul> <li>Discuss the effectiveness of indirect taxation on fuel as a method of solving market failure in transport.</li> <li><u>Relevant analysis includes</u>: <ul> <li><u>A. Diagram analysis:</u></li> <li><u>Basic analysis</u>: An accurately labelled diagram with an explanation of two of the following points.</li> <li><u>'Good analysis'</u>: An accurately labelled diagram with explanation of 3 of the following points:</li> <li>increases costs of production/MPC/ internalise negative externality</li> <li>reduction of supply/supply shifts left</li> <li>equilibrium price is raised</li> <li>demand / equilibrium quantity falls</li> </ul> </li> <li>B. Written analysis of indirect taxes: <u>'Basic analysis'</u> covers all three points:</li> <li>higher indirect taxes on fuel increases consumers' private costs OR internalises external costs</li> <li>this reduces the incentive to supply the product OR shifts the supply curve to the left</li> <li>this leads to higher price AND lower demand (DO NOT accept "more expensive so less driving").</li> </ul>	20	<ul> <li>Possible judgement includes:</li> <li>The effectiveness ultimately depends upon how big the tax is – the bigger it is, arguably the more likely it is to deter car use.</li> <li>The effectiveness depends upon whether it is used in conjunction with other policies or not. If used as part of a wider, integrated strategy, then it is likely that it may well encourage motorists to shift to other modes of transport.</li> </ul>	<ul> <li>Level 4(a): (16-20 marks): For balanced discussion (two sided analysis) with judgement.</li> <li><i>NOTE: to reach L4(a) 'balanced' discussion must already be present.</i></li> <li>18–20 marks: balanced discussion with good judgement.</li> <li>16–17 marks: balanced discussion with weak judgement.</li> <li>Level 4(b): (11-15 marks): For two sided discussion lacking judgement.</li> <li>13–15 marks: balanced discussion (good analysis of both sides of the argument)</li> <li>11–12 marks: basic discussion (two sided analysis but within this, one side of the argument is analysed in a basic manner)</li> <li>Level 3: (5-10 marks): One sided analysis ie analysis of why indirect taxes will OR will not be successful.</li> <li>8–10 marks <i>Good analysis</i>: relevant analysis of why indirect taxes will OR will not be effective.</li> <li>5–7 marks <i>Basic analysis</i>: analysis of why indirect taxes will OR will not be effective.</li> </ul>

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	<ul> <li>C. Written analysis of hypothecation: 'Basic analysis': 2 of the following. 'Good analysis': all 3 of the following:</li> <li>the tax will raise revenue/increase revenue for the government</li> <li>this revenue can lower public transport fares OR increase quality</li> <li>this encourages modal switch OR higher demand for public transport OR makes PED for cars more elastic</li> <li>Analysis of limitations of indirect taxes include:</li> <li>to be accurate, the tax must be set equal to the external cost. If incorrect then over (or under) consumption will exist. Hence government failure.</li> <li>to succeed, an alternative is needed in the form of reliable public transport.</li> <li>inelastic PED exists for fuel and car use. In such cases, over-consumption will remain.</li> <li>such taxes must be international. If not, haulage firms may simply relocate to other countries or, in extreme cases, may simply cross borders to avoid paying high fuel taxes and therefore avoid the taxes completely.</li> <li>Other factors may reduce the effectiveness eg if incomes rise at the same time OR if car prices fall significantly.</li> <li>High income groups will not be deterred as they can still afford to pay.</li> </ul>		NOTE: criticisms MUST relate to why indirect taxes on fuel will not solve market failure. Therefore DO NOT reward general problems with indirect taxes eg regressive/inflationary Theoretical answers which lack any relevant application to fuel duties will receive a mark at the bottom of the relevant 'band' (eg 5 / 7 / 11 / 13 marks)	<ul> <li>Level 2: (3–4 marks): For an application of knowledge and understanding of indirect taxes in transport.</li> <li>Answers in this level will provide examples of different indirect taxes which could be applied in transport markets eg fuel duty or Air Passenger Duty (APD) OR offer simple statements such as "indirect taxes increase prices"</li> <li>Level 1: (1–2 marks): For knowledge and understanding of what indirect taxes are.</li> <li>Answers in this level will simply state what indirect taxes are.</li> </ul>

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3 (a)	<ul> <li>Analyse the reasons for the growth in rail passenger numbers in recent years.</li> <li>Accept any relevant factors such as: <ul> <li>increased incomes/GDP</li> <li>growth in employment levels</li> <li>population increases</li> <li>increased price of substitutes</li> <li>perceived increase in quality/reliability of rail services</li> <li>improvements to rail infrastructure.</li> <li>accept lower fares.</li> <li>continued subsidies</li> </ul> </li> <li>Relevant analysis of these includes: <ul> <li>rising incomes (L1): households can now afford rail travel (L2). This shifts demand curve to the right (basic L3) Rail travel is a 'derived' demand so higher incomes raise demand (good L3) OR as rail travel is a 'normal' good with positive YED, higher incomes will raise demand (good L3)</li> <li>increased employment levels (L1). With more people in work there will be more commuting (L2). This shifts the demand curve to the right (basic L3) as passenger transport is a derived demand when employment rises, so will demand for rail transport (good L3).</li> <li>increased price of substitutes (L1) for example, higher petrol prices (L2). This results in the demand curve shifting to the right (basic L3) OR people</li> </ul> </li> </ul>	15	Identification of factors = Level 1 Identification AND explanation of factors = Level 2 Analysis of HOW each factor results in a rise in passenger numbers = Level 3 To move from Level 2 to Level 3 there must be clear economic analysis of the factor rather than just description. In other words, economic terms, concepts or diagrams must be applied to account for the rise in rail passenger numbers. If there is no application to rail passenger transport then mark at the lower end of each band within the level (eg 13 / 11 / 9 / 7 / 5 marks if not in context).	<ul> <li>Level 3: (9–15 marks): Analysis of HOW each factor results in a rise in passenger numbers.</li> <li>13–15 marks: <i>Very good analysis</i>: Two or more factors clearly analysed.</li> <li>11–12 marks: <i>Good analysis</i>: Good analysis of one factor OR basic analysis of two.</li> <li>9–10 marks: <i>Basic analysis</i>: basic analysis of one factor</li> <li>Level 2: (5–8 marks): For an application of knowledge and under-standing of different factors:</li> <li>7–8 marks <i>Good application</i>: two or more factors identified and explained.</li> <li>5–6 marks <i>Basic application</i>: one factor identified and explained.</li> <li>Level 1: (1–4 marks): Knowledge &amp; understanding of what factors may shift the demand curve.</li> <li>3-4 marks: two or more general demand factors identified but not explained 1-2 marks: one factor identified only</li> </ul>

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	<ul> <li>switching to rail <u>from another mode</u> (basic L3). This occurs due to a rise in price of car travel compared to rail travel (good L3) OR positive XED (good L3)</li> <li>increased reliability OR quality (L1). With more services running on time (L2), the demand curve shifts to right (basic L3) OR people switch to rail from another mode(basic L3) Changing perceptions lead to higher demand at each and every price level (good L3).</li> <li>improvements to rail infrastructure (L1) has reduced journey times OR improved quality (L2). This has led to the demand curve shifting to the right (basic L3) with more consumers switching from other modes due to improved quality (good L3).</li> <li>Privatisation (L1) increased competition between providers (L2), this lowers price AND increases demand (basic L3). If developed in terms of increased supply (good L3).</li> <li>subsidies (L1) have lowered price and increased demand (basic L3). Accept diagram analysis (good L3).</li> <li>Population (L1) with more people there</li> </ul>		Content	Levels of response
	will be more people travelling for leisure and work purposes (L2) leading			
	to rightwards shift of the demand curve (basic L3) and increased 'derived'			
	demand for transport (good L3).			

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(b)	<ul> <li>Discuss whether or not rail privatisation in the UK has been a success.</li> <li>Possible benefits include: <ul> <li>more firms compete for franchises/ raises competition (L2). This lowers fares (basic L3) &amp; raises consumer surplus (good L3). Accept S/D analysis explained (good L3)</li> <li>accept theory of the firm diagrams which explain price/efficiency changes with move from monopoly to competition (L3)</li> <li>allocative efficiency (L2) as private sector firms want to provide exactly those goods and services consumers want (basic L3) or they lose market share/sales (good L3)</li> <li>productive efficiency (L2) as firms produce at lowest possible cost (basic L3) to max. profits (good L3) OR minimise prices (good L3).</li> <li>reduced 'X-inefficiency' (L2) as private sector firms want to minimise / reduce costs (basic L3) in order to profit maximise (good L3) OR to lower prices (good L3).</li> <li>private sector may have more incentive to invest OR bigger sources of financial capital OR higher profits (L2) leading to dynamic efficiency gains (L3) OR product innovation / better quality (L3).</li> </ul> </li> </ul>	20	Content Possible judgement includes: • effectiveness depends upon how many firms are willing to bid for services in each franchise area. If few firms are willing to bid then there will be limited competition. • effectiveness depends upon how well regulated firms are once they win the franchise. • effectiveness may well depend upon how long the franchise runs for (a shorter period may lead to fewer firms wishing to compete due to limited time to recoup investment) • it depends upon whether looking at freight or passenger rail services. • Depends upon how much barriers to entry have been reduced by • it depends upon how we define "success" NOTE: ACCEPT RELEVANT THEORY OF THE FIRM DIAGRAMS WHICH, WHEN EXPLAINED, CAN GAIN ANALYSIS MARKS	<ul> <li>Levels of response</li> <li>Level 4(a): (16-20 marks): For balanced discussion (two sided analysis) with judgement.</li> <li><i>NOTE: to reach L4(a) 'balanced' discussion must already be present.</i></li> <li>18–20 marks: balanced discussion with good judgement.</li> <li>16–17 marks: balanced discussion with weak judgement.</li> <li>Level 4(b): (11-15 marks): For two-sided discussion lacking judgement.</li> <li>13–15 marks: balanced discussion (good analysis of both sides of the argument)</li> <li>11–12 marks: basic discussion (two sided analysis but within this, one side of the argument is analysed in a basic manner)</li> <li>Level 3: (5-10 marks): One sided analysis ie analysis of why rail privatisation has OR has not been successful.</li> <li>8–10 marks: Good analysis: Good, relevant analysis of why rail privatisation has OR has not been successful. Economic analysis is 'good'.</li> </ul>

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	<ul> <li>increased passenger numbers reduce market failure/negative externalities (L2). This reduces allocative inefficiency (L3).</li> <li>Raises revenue (L2) which allows government spending in other areas (basic L3) OR reduce taxes (basic L3) OR reduce budget deficit (basic L3)</li> </ul>		DO NOT reward analysis of the advantages and disadvantages of nationalisation/government ownership – must explicitly refer to privatisation.	<ul> <li>5–7 marks: Basic analysis: Basic analysis of why rail privatisation has OR has not been successful. Economic analysis is 'basic'.</li> <li>Level 2: (3–4 marks): For an application of knowledge and understanding of rail privatisation.</li> <li>Answers in this level will identify relevant</li> </ul>
	Possible drawbacks include:			arguments for <b>OR</b> against without analysis.
	<ul> <li>Possible drawbacks include:</li> <li>limited competition with franchise system (L2) creating oligopoly/duopoly/monopoly (L2) leading to: <ul> <li>i. productive inefficiency as not producing at min. AC (L3).</li> <li>ii. allocative inefficiency as not producing at P=MC (L3).</li> </ul> </li> <li>higher fares (L2) have reduced consumer surplus (L3). Accept refs to price discrimination raising fares for L3.</li> <li>whilst much debated, private firms may well ignore external costs in the pursuit of profit maximisation (L2) hence allocative inefficiency. (L3)</li> <li>loss making routes closed (L2) OR end of cross subsidies (L2) has cut network and arguably caused some people to move to cars from public transport (L3) OR allocative inefficiency (L3)</li> <li>loss of natural monopoly/EOS (L2) with firms not able to lower ACs/firms have higher ACs (basic L3) -productive inefficiency (good L3)</li> <li>Cuts to subsidies (L2) raise fares (L3)</li> </ul>			Level 1: (1–2 marks): For knowledge and understanding of what rail privatisation is. Answers in this level may state what privatisation is OR explain how rail was privatised in terms of distinction between infrastructure/rolling stock and use of franchising.

Question		Answer	Marks	Guidance		
				Content	Levels of response	
4	(a)	<ul> <li>Analyse, using examples, what is meant by a 'sustainable' air transport policy.</li> <li>Relevant analysis includes: <ul> <li>A.P.D (L1): tax flights equal to external costs (L2). This reduces output/demand (basic L3), solves overconsumption (good L3) and achieves allocative efficiency (good L3) OR a more efficient use of resources (good L3).</li> <li>Regulation (L1) eg banning high emission aircraft (L2) OR introducing higher emissions standards (L2). This reduces output (basic L3), ends overconsumption (good L3) and achieves allocative efficiency OR a more efficient use of resources (good L3).</li> </ul> </li> <li>Regulation (L1) eg banning high emission aircraft (L2) OR introducing higher emissions standards (L2). This reduces output (basic L3), ends overconsumption (good L3) and achieves allocative efficiency OR a more efficient use of resources (good L3).</li> <li>Government incentives to introduce new low emission aircraft (L1) eg subsidising new technology (L2). This encourages production/supply of low emission planes (basic L3), reduces pollution and hence achieves allocative efficiency OR a more efficient use of resources (good L3).</li> <li>Permit system (L1): permits issued to cover emission levels (L2). High polluting firms have to buy more hence incentive to reduce emissions (basic L3). As a result, allocative efficiency arises OR a more efficient use of resources (L3).</li> </ul>	15	By definition, a sustainable policy is one "which meets the needs of the present without compromising the ability of future generations to meet their own needs" (Bruntland Commission, 1987). Such a policy forces users to take in to account full (social) costs of their actions, therefore internalising negative externalities & correcting market failure. Identification of policies= Level 1 Identification AND explanation of policies = Level 2 Analysis of HOW each policy could be considered to be a sustainable air transport policy = Level 3 If no application to air transport then mark at lower end of each band within the level (eg 13 / 11 / 9 / 7 / 5 / 3 / 1 marks).	<ul> <li>Level 3: (9–15 marks)</li> <li>13–15 marks: <i>Very good analysis:</i> good analysis of two or more policies.</li> <li>11–12 marks: <i>Good analysis</i>: Good analysis of one policy OR basic analysis of two.</li> <li>9–10 marks: <i>Basic analysis:</i> Basic analysis of one policy.</li> <li>Level 2: (5–8 marks)</li> <li>For an application of knowledge and understanding of different policies:</li> <li>7–8 marks <i>Good application:</i> two or more policies identified and explained but not analysed.</li> <li>5–6 marks <i>Basic application:</i> one policy identified and explained.</li> <li>Level 1 (1–4 marks)</li> <li>Knowledge &amp; understanding of what a sustainable air transport policy is.</li> <li>3-4 marks: Two or more relevant policies are identified OR knowledge of how air transport is not sustainable.</li> <li>1-2 marks: One relevant policy is identified OR a basic definition of sustainability.</li> </ul>	
		PTO				

Q	uestion	Answer	Marks	Guidance	
				Content	Levels of response
		Firms may invest profits into new technology (L1) which is designed to reduce emissions (L2). This increases production/supply of low emission planes (basic L3) and allocative efficiency results <b>OR</b> a more efficient use of resources (good L3)			

<ul> <li>roads are underprovided by the market (as a quasi-public good) (L2). Therefore govt provision needed to ensure allocative efficiency. (L3).</li> <li>Reasons why the government should not expand the road network include:</li> <li>Road building generates negative externalities (L2) and hence market failure (pollution and congestion) (L2) which lead to allocative inefficiency (basic L3). Accept diagrammatic analysis of externalities (good L3)</li> <li>Road building uses finite resources (L2) which is not sustainable (basic L3) as fewer resources are used to future generations (good L3)</li> <li>Increasing supply of road space may generate more demand (L2). This increases negative externalities (basic</li> </ul>	Question	Answer	Marks	Guidance		
<ul> <li>roads are underprovided by the market (as a quasi-public good) (L2). Therefore govt provision needed to ensure allocative efficiency. (L3).</li> <li>Reasons why the government should not expand the road network include:</li> <li>Road building generates negative externalities (L2) and hence market failure (pollution and congestion) (L2) which lead to allocative inefficiency (basic L3). Accept diagrammatic analysis of externalities (good L3)</li> <li>Road building uses finite resources (L2) which is not sustainable (basic L3) as fewer resources are used to future generations (good L3)</li> <li>Increasing supply of road space may generate more demand (L2). This increases negative externalities (basic</li> </ul>				Content	Levels of response	
<ul> <li>L3) OR wastes scarce resources</li> <li>(basic L3) and greater allocative</li> <li>inefficiency (good L3)</li> <li>Accept S&amp;D analysis showing</li> <li>increased supply lowering price and</li> <li>raising demand (L3)</li> <li>COBA / CBA is flawed (L2) therefore</li> <li>leading to inefficient allocation of</li> <li>resources (L3)</li> </ul>	Reason expand Reason expand Reason expand Reason expand Reason exter failur which (basi analy Road (L2) as fe gene incre gene incre L3) C (basi ineffi Acce incre raisir COB	ency (basic L3). s are underprovided by the market a quasi-public good) (L2). efore govt provision needed to are allocative efficiency. (L3). ns why the government should not d the road network include: d building generates negative rnalities (L2) and hence market re (pollution and congestion) (L2) h lead to allocative inefficiency ic L3). Accept diagrammatic ysis of externalities (good L3) d building uses finite resources which is not sustainable (basic L3) ewer resources are used to future erations (good L3) easing supply of road space may erate more demand (L2). This eases negative externalities (basic DR wastes scarce resources ic L3) and greater allocative iciency (good L3) ept S&D analysis showing eased supply lowering price and ng demand (L3) oA / CBA is flawed (L2) therefore ing to inefficient allocation of	Marks	Content	Levels of responsewhy the government should OR should not expand the motorway network.Level 2: (3–4 marks): For an application of knowledge and understanding of road building.Answers in this level may simply identify relevant costs or benefits of building new roads without analysing theseLevel 1: (1–2 marks): For knowledge and understanding of road building policy OR sustainability.Answers will provide basic knowledge as to how the government undertakes road building schemes OR identify the 'predict and provide' without explanation. Alternatively, answers may state that the COBA method is used to decide whether or not to build roads (this gain two marks	

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