

# Mark Scheme (Results) January 2010

GCE

GCE Economics (6EC01/01)

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**NB: candidates may achieve up to 3 explanation marks even if incorrect option is selected.**

**NB: candidates may achieve up to 3 marks for explaining three incorrect options (provided three different reasons are offered and each option key is explicitly rejected)**

Question Number	Answer	Mark
1	<p><b>Answer D (1 mark)</b></p> <ul style="list-style-type: none"> <li>• Definition of mixed economy (e.g. resources are partly allocated by the price mechanism / market and partly by the government / state) (1 mark).</li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>• Definition of a free market economy (e.g. resources are allocated by the price mechanism / demand &amp; supply)</li> </ul> <p><b>NB: Award just one mark even if both definitions are given.</b></p> <ul style="list-style-type: none"> <li>• Identification and development of a type of market failure (e.g. externalities / public goods / commodity price instability / immobility of labour / asymmetric information / unequal distribution of income / monopoly formation) (1+1 marks).</li> <li>• Definition of market failure (e.g. price mechanism / market fails to allocate resources efficiently) (1 mark).</li> </ul>	(4)

Question Number	Answer	Mark
2	<p><b>Answer C (1 mark)</b></p> <ul style="list-style-type: none"> <li>• Definition of production possibility frontier (e.g. the maximum output combinations of two goods an economy can achieve when all its resources are fully and efficiently employed) (1 mark).</li> <li>• Definition of opportunity cost (e.g. value of the next best alternative foregone) (1 mark).</li> <li>• Application to the table information to demonstrate that opportunity cost increases for agricultural goods as more is produced (at least two calculations need to be shown and this may be in the table or in the written explanation) (2 marks).</li> <li>• Diagram of production possibility frontier, illustrating concept of increasing opportunity cost - it must be correctly labelled with agricultural and manufactured goods (concave to origin) (1 mark).</li> </ul>	(4)

Question Number	Answer	Mark
3	<p><b>Answer B (1 mark)</b></p> <ul style="list-style-type: none"> <li>• Definition or formula of price elasticity of demand (e.g. responsiveness of demand for a good due to a change in its price or <math>\% \Delta QD \div \% \Delta P</math>) (1 mark).</li> <li>• Identification that demand is price inelastic for business travellers and price elastic for leisure travellers (1 mark)</li> <li>• Demand is price inelastic for business travellers so an increase in price will raise total revenue (1 mark).</li> <li>• Demand is price elastic for leisure travellers so a decrease in price will raise total revenue (1 mark).</li> <li>• Relevant diagrammatic analysis showing how a change in price will increase total revenue (up to 2 marks).</li> </ul>	(4)

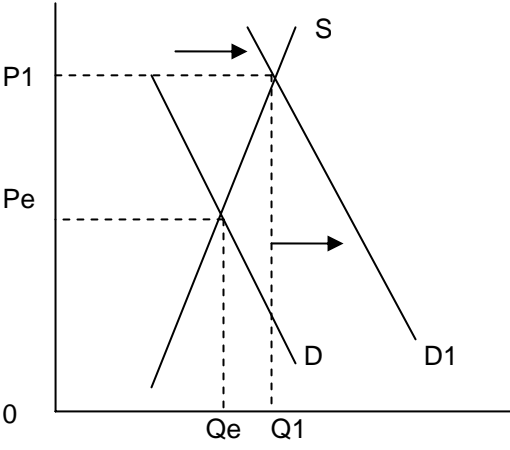
Question Number	Answer	Mark
4	<p data-bbox="320 331 576 365"><b>Answer B (1 mark)</b></p> <ul data-bbox="341 405 1086 1046" style="list-style-type: none"><li data-bbox="341 405 1086 539">• Definition of a normal good (e.g. as real income increases, so will demand increase for a good <b>OR</b> as real income decreases, so will demand decrease for a good) (1 mark)</li><li data-bbox="341 573 1086 674">• A fall in real income will cause a decrease in demand for new houses. This will cause price of housing to fall (1 mark).</li><li data-bbox="341 707 1086 808">• A decrease in demand for housing will cause a decrease in demand for bricklayers so wages will fall (1 mark).</li><li data-bbox="341 842 1086 920">• Labour is a derived demand - its demand is derived from the demand for the product it makes (1 mark).</li><li data-bbox="341 954 1086 1046">• Application to <b>both</b> diagrams, showing an inward shift in demand for new housing and bricklayers (1 mark).</li></ul>	(4)

Question Number	Answer	Mark
5	<p>Answer D (1 mark)</p> <ul style="list-style-type: none"> <li>• Definition of external benefits (e.g. positive third party effects / benefits external to an exchange / positive spillover effects / benefits from a transaction which the price mechanism ignores / difference between social benefits and private benefits) (1mark).</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• Definition of subsidy (grant to firms) / lower production costs (1 mark). <b>NB: Award just one mark even if both definitions are given.</b></li> <li>• Application to goods / service which yield external benefits e.g. education and healthcare services. (1 mark).</li> <li>• Diagrammatic analysis showing the subsidy increase in output and decrease in price (this could be shown by an MSB and MPB diagram, where the social equilibrium output is higher than the market equilibrium output) (1 mark).</li> <li>• Also accept definition of market failure (price mechanism / market fails to allocate resources efficiently) (1 mark).</li> </ul>	(4)

Question Number	Answer	Mark
6	<p>Answer C (1 mark)</p> <ul style="list-style-type: none"> <li>• Definition of minimum price scheme (a floor price / minimum price below which price cannot fall) <b>OR</b> explanation of the aim of a minimum price scheme (e.g. stabilise prices or increase producer income) (1 mark).</li> <li>• Initial government spending on barley is Q1Q2WZ (1 mark).</li> <li>• New government spending on barley is Q3Q4YX <b>OR</b> an explanation of how an increase in excess supply of barley will lead to an increase in the expenditure of the EU (1 mark).</li> <li>• <b>Alternatively, the original and new areas of government spending may be annotated on the</b></li> </ul>	(4)

Question Number	Answer	Mark
7	<p>Answer A (1 mark)</p> <ul style="list-style-type: none"> <li>• Definition of cross elasticity of demand or formula (e.g. responsiveness in demand for one good due to a change in price of another good or <math>\% \Delta QD \text{ good B} \div \% \Delta P \text{ good A}</math>) (1 mark).</li> <li>• Tea and milk are complementary goods / joint demand (1 mark).</li> <li>• Application: for example, an increase in price of tea may cause a decrease in demand for milk and vice-versa. (1 mark).</li> <li>• Diagrammatic analysis with application to tea and milk (1 mark).</li> <li>• Tea and coffee are substitute goods since they have positive cross elasticity of demand (1 mark).</li> </ul>	(4)

Question Number	Answer	Mark
8	<p>Answer D (1 mark)</p> <ul style="list-style-type: none"> <li>• Explanation of the geographical mobility / immobility of labour (e.g. the ability / inability of labour to move from one location to another in taking work) (1 mark).</li> <li>• A major obstacle of geographical labour mobility is imperfect market knowledge of available jobs / asymmetric information <b>OR</b> by improving market knowledge of job vacancies, labour mobility will improve (1 mark).</li> <li>• Examples of improving market information (for example, increase funding of Job Centres / more staffing / improve location of Job Centres / relocation grants) (1+1marks).</li> </ul>	(4)

Question Number	Answer	Mark
9(a)(i)	<p><b>KAA 6 marks.</b></p> <ul style="list-style-type: none"> <li>• Data reference that oil prices increased from \$25 to \$139 per barrel / risen by more than 400% (1 mark)</li> <li>• Correct diagram (3 marks)</li> </ul>  <p>➤ Original demand and supply, depicting equilibrium price (1)</p> <p>➤ An increase in the demand curve (1)</p> <p>➤ Increase in equilibrium price (1)</p> <p><b>NB:</b> If candidate shifts supply curve inwards, award a maximum of 2 marks for diagram since the final equilibrium price is incorrect</p> <ul style="list-style-type: none"> <li>• <b>Reasons for increase in demand</b> <ul style="list-style-type: none"> <li>➤ Rapid economic growth in China / development of this point (up to 2 marks)</li> <li>➤ Speculative demand from oil traders / development of this point (up to 2 marks)</li> </ul> </li> <li>• Inability of supply to respond / inelastic supply (1 mark).</li> </ul> <p><b>NB:</b> Award a maximum of 3 marks if no diagram provided.</p> <p><b>NB:</b> Award a maximum of 5 marks if diagram is incorrect.</p>	(6)



Question Number	Answer	Mark
9(a)(ii)	<p><b>KAA 4 marks</b></p> <ul style="list-style-type: none"> <li>• Definition or formula of price elasticity of supply (e.g. responsiveness of supply of a good due to a change in its price or <math>\% \Delta \text{ Quantity Supply} \div \% \Delta \text{ Price}</math>) (1 mark)</li> <li>• Short-run: supply appears price inelastic / major oil producers cannot raise production due to long period of under-investment (<b>up to 2 marks</b>)</li> <li>• Long-run: supply appears more price elastic (less price inelastic) / the high price of oil acts as financial incentive to firms to invest more (<b>up to 2 marks</b>)</li> <li>• <b>NB: If candidate just refers to supply being inelastic in the short run and elastic in the long run with no explanation, award 1 mark</b></li> <li>• Extract indicates increase in investment, for example, North Sea / Brazil / Azerbaijan (1 mark)</li> <li>• Understanding of distinction between short-run and long-run in economics (at least one factor input is fixed in short run but all inputs are variable in the long run) (1 mark)</li> </ul> <p><b>Evaluation (2 marks for one factor)</b></p> <ul style="list-style-type: none"> <li>➤ Magnitude: major discoveries of oil may still be made, for example, in the Arctic and Antarctica, which could lead to greater price elasticity of supply in long run.</li> <li>➤ Development of new technology to locate and extract oil.</li> <li>➤ The fall in oil prices indicate much volatility in the oil market - oil producers are unlikely to invest in expanding capacity under such circumstances. Supply could be price inelastic.</li> <li>➤ Oil may be price elastic from middle-east as easy to cut production when prices fall.</li> <li>➤ Discussion on the availability of stockpiles of oil</li> <li>➤ Oil is a finite resources and so ultimately is price</li> </ul>	(6)

	inelastic in supply.	
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Question Number	Answer	Mark
9(b)(i)	<p><b>KAA 4 marks</b></p> <ul style="list-style-type: none"> <li>• Rising oil prices mean an increase in production costs for airline companies (1 mark).</li> <li>• Airlines may raise fares / leading to a fall in quantity demanded / this can be shown in a diagram by shifting supply inwards (up to 2 marks)</li> <li>• NB Marks can only be awarded for the recession causing a fall in demand if it is suggested that the rise in oil prices has contributed to the recession</li> <li>• Profits may fall or losses made / danger of bankruptcy and exit from industry / cut costs e.g. laying off staff and redundancy costs / reduce number of flights / reduce investment into new planes / consider mergers / consider borrowing / / industrial disruption / sale of assets / impact on share prices (two or more points up to 2 marks each).</li> <li>• Falling producer surplus (1 mark).</li> </ul> <p><b>Evaluation 4 marks (two or more evaluation points up to 2 marks each)</b></p> <ul style="list-style-type: none"> <li>➤ Hard to cut production costs as safety might be compromised e.g. reduction in maintenance / engineers / spare fuel carried / replacement of parts.</li> <li>➤ Discussion on the magnitude of oil price increase of over 400% / fluctuations in oil prices.</li> <li>➤ Fuel is only one part of production costs - need to consider it as a proportion of total costs. The airline has to pay for staff, leasing of planes, landing and navigation fees too.</li> <li>➤ Airlines may not increase price and instead accept lower profit margins / lower dividend to shareholders / use up cash reserves from previous years of profits.</li> <li>➤ Issue of price elasticity of demand for air fares: The extract suggests it is price elastic which means it is hard for airlines to pass on the extra costs to their customers via higher prices.</li> </ul>	(8)

	➤ NB Accept various arguments on business economics if relevant.	
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Question Number	Indicative content	
9(b)(ii)	<p><b>KAA 6 marks</b></p> <ul style="list-style-type: none"> <li>➤ Definition of subsidy (a government grant to firms) (1 mark).</li> <li>➤ Subsidy acts to reduce production costs / increase the competitiveness of Alitalia in relation to other airlines (1+1 marks).</li> <li>➤ Diagram or written explanation (up to 3 marks). (Diagram: Increase in supply curve / new equilibrium position showing lower price / subsidy area) (Written explanation: lower price / increased output / benefits to Alitalia producers and consumers).</li> <li>➤ Protection of employment with Alitalia / so the firm can remain in operation / prevent bankruptcy (1+1 marks).</li> </ul> <p><b>Evaluation (2+2 or 1+3 marks)</b></p> <ul style="list-style-type: none"> <li>➤ Danger of EU investigation into anti-competitive practices. May lead to fines and Alitalia to repay subsidies.</li> <li>➤ Discussion of magnitude / duration of subsidy which determines the ability of firm to remain in production.</li> <li>➤ Opportunity cost associated with government subsidy; higher taxes / less funds to spend elsewhere.</li> <li>➤ Danger of retaliation by other governments to subsidise their airline firms. Perhaps some already do.</li> <li>➤ Government failure: the subsidy could increase inefficiency of Alitalia in the long run and create dependency / lead to a misallocation of resources.</li> <li>➤ Indirectly employment linkages with suppliers</li> <li>➤ Discussion on the relevance of price elasticity of demand and total revenue</li> <li>➤ It depends on how the subsidy is used: if for investment purposes then it could increase long term competitiveness / efficiency of the airline</li> </ul>	
Level	Mark	Descriptor
Level 1	1-2	Definition of subsidy / idea of increase in production.
Level 2	3-4	Explanation of falling prices and increasing production.
Level 3	5-6	Diagrammatic analysis or reference to lower production costs and efficiency.
Level 4	7-10	One or more evaluation points offered along with explanation of subsidies.

Question Number	Answer	Mark
9(c)	<p><b>KAA 6 marks</b></p> <ul style="list-style-type: none"> <li>• <b>Definition of external costs (1+1 marks)</b> (Costs external to an exchange / negative third party effects / negative spillover effects / costs outside a market transaction / costs the price mechanism fails to take into account / difference between social costs and private costs).</li> <li>• <b>Identification (1+1) and development (1+1).</b> (These include air pollution / global warming / respiratory illnesses / acid rain / river pollution / motor vehicle use).</li> </ul> <p><b>NB: External costs from the consumption of oil can refer to any user of oil except oil producers.</b></p> <ul style="list-style-type: none"> <li>• <b>Award for a diagram depicting external costs (1 mark)</b></li> </ul>	(6)

Question Number	Indicative content
9(d)	<p><b>KAA 6 marks</b></p> <ul style="list-style-type: none"> <li>• Definition of (indirect) tax (compulsory charge on expenditure) (1 mark)</li> <li>• Tax increase will increase cost of production (1 mark)</li> </ul> <p>Diagrammatic or written explanation (up to 3 marks)</p> <p>Diagrammatic explanation (decrease in the supply curve / new equilibrium price and quantity shown / tax incidence or tax area shown) (Accept parallel or pivotal shift in supply curve)</p> <p><b>NB: Accept MPC / MSC diagram with the addition of a tax</b></p> <p>Written explanation (higher price / lower output / reduce profits for producers)</p> <ul style="list-style-type: none"> <li>• High petrol tax may reduce consumer and business confidence, increasing chance of a recession (1 mark)</li> <li>• The high tax has added to inflation across economy since so many sectors rely on transport (1 mark)</li> <li>• The tax may reduce external costs / protect environment / reduce CO<sub>2</sub> emissions &amp; global warming / move towards social optimum position / internalise external costs (1+1 marks)</li> <li>• More fuel protests which disrupt the economy (1 marks)</li> <li>• Lower consumer surplus or producer surplus (1 mark)</li> <li>• Increase in tax revenue (1 mark)</li> <li>• Impact of high petrol tax on low income groups regressive tax (1 mark)</li> </ul>

**Evaluation (up to 3+3 or 2+2+2 marks)**

- Discussion of UK petrol tax rate being very high in comparison to other countries shown in Figure 3 / explicit data reference / implications for UK competitiveness.
- Discussion of the magnitude of the petrol tax increase / oil prices also falling over latter part of the period.
- Discussion of long run impact / whether the tax increase is part of an upward trend in taxation.
- Discussion of difficulties in setting tax rate to internalise external costs, reaching social optimum position (could be too high or too low).
- Motorists may reduce non-essential car journeys / use cleaner substitutes, for example, bus and trains or switch to eco-friendly vehicles / development of green transport.
- Tax revenue raised can be used to clean up environment / fund other areas of government spending such as renewable energy.
- Motorists still have the choice to drive - the tax operates with the price mechanism. It is not a regulation.
- Demand for petrol is price inelastic, which suggests many motorists are still prepared to pay the higher price for fuel.

Level	Mark	Descriptor
Level 1	1-2	Definition of indirect tax / impact on price and output
Level 2	3-4	Explanation of one or two other economic effects
Level 3	5-6	Explanation of three or more economic effects
Level 4	7-9	One evaluation point well developed
Level 5	10-12	Two or more evaluation points well developed

Question Number	Answer	Mark
10(a)	<p><b>KAA 6 marks</b></p> <ul style="list-style-type: none"> <li>• The number of private licensed cars has increased from 21.2m to 26.5m or 25 per cent or 5.3m cars (1 mark).</li> <li>• Accept any two factors: <ul style="list-style-type: none"> <li>➤ The cost of motoring has risen more slowly than bus and rail travel / they are substitutes / positive cross elasticity of demand / data use (1+1+1 marks).</li> <li>➤ The real cost of motoring has fallen / cost of motoring has risen at a slower rate than the retail price index / data use (1+1+1 marks).</li> <li>➤ Increase in public roads by kilometres / so may encourage more people to buy cars / data use (1+1+1 marks).</li> <li>➤ Rise in household incomes / cars are a normal good / positive income elasticity of demand / motoring is more affordable / data use (1+1+1 marks)</li> </ul> </li> </ul> <p><b>NB: Accept other plausible reasons, for example, increase in population, immigration and employment. Award a maximum of 2 marks for each factor and so overall there is a cap of 4 marks.</b></p>	(6)

Question Number	Answer	Mark
10(b)	<p>Accept both views here on effectiveness of road building. Candidate should present an analysis as one way or the other as KAA (4 marks). Accept the alternative view as evaluation (2 marks).</p> <p>If no reference to Figure 1, award maximum of 3 marks for KAA.</p> <p>Unlikely to be effective:</p> <ul style="list-style-type: none"> <li>• Recent trends: Figure 1 shows that building more roads unlikely to be effective since it cannot keep pace with the increase in licensed cars or car vehicle journeys (1 mark)</li> <li>• Use of absolute figures for example private cars rose by 5.3m whereas public roads rose by 11,000km / public roads increased by 2.9% but private car vehicle traffic increased by 11.8% or licensed cars increased by 25% over the period (1+1 marks). <ul style="list-style-type: none"> <li>➤ As a means of reducing congestion building more roads may involve an excessive financial cost to the government / opportunity cost (1+1 marks).</li> <li>➤ Building more roads may encourage more road traffic until they become full (1 mark).</li> <li>➤ Not enough space to build roads / congestion concentrated in built-up areas (1+1 marks).</li> <li>➤ There may be greater congestion in the short run as more roads are built (1 mark).</li> <li>➤ Difficulty in obtaining planning permission to build new roads / public protests (1+1 marks)</li> </ul> </li> </ul> <p>Likely to be effective:</p> <ul style="list-style-type: none"> <li>➤ Road capacity increases (1 mark).</li> <li>➤ Magnitude of increase in predicted road traffic compared to road building programme: depends on future growth of both / the Report refers to need for significant increase in road capacity if road pricing does not go ahead (1+1 marks).</li> <li>➤ It is possible to target congestion bottlenecks and build more roads / motorways here (1+1 marks).</li> </ul>	(6)



Question Number	Answer
10(c)	<p data-bbox="395 367 1102 400"><b>Case for national road pricing scheme KAA 6 marks</b></p> <ul style="list-style-type: none"> <li data-bbox="416 439 1291 506">• Consideration of two or more points that road pricing might be effective in reducing congestion (3+3 or 2+2+2 marks).</li> <li data-bbox="416 544 938 577">• Road pricing may be effective since: <ul style="list-style-type: none"> <li data-bbox="416 611 1358 712">➤ Charging motorists for using the roads will increase the price and so should cause a fall in demand / the report suggests a saving of £28 billion or cut in congestion by 50% by 2025.</li> <li data-bbox="416 745 1358 846">➤ Road space is a scarce resource / so the price mechanism should be allowed to operate to equate demand with supply. (This may be shown by diagram)</li> <li data-bbox="416 880 1358 981">➤ Road pricing can charge motorists for the external costs such as congestion / so reach the social optimum level of motor vehicles on road.</li> </ul> </li> </ul> <p data-bbox="453 1014 1358 1081">NB Diagrammatic analysis which uses MSC, MPC and MB and showing the effects of the road price on traffic, award up to 3 marks.</p> <ul style="list-style-type: none"> <li data-bbox="416 1122 1358 1223">➤ Road pricing can be varied according to time of day / so encouraging motorists to use at off-peak times to pay lower charge / this should reduce congestion by spreading out traffic flow.</li> <li data-bbox="416 1256 1318 1357">➤ Revenue raised can be spent on reducing congestion further / by improving bus and rail transport or building around traffic bottlenecks.</li> </ul>

**Evaluation 6 marks (3+3 or 2+2+2 marks)**

- It depends on the technology available / Extract 2 indicates more than a million motorists without road tax disc.
- The cost of implementing the scheme nationally is huge / opportunity cost / so may put off government / need financing over many years.
- It depends on the fees charged for using roads / the higher the price the more likely congestion will be reduced.
- Road pricing is extremely unpopular as indicated in Extract 2, where 1.8 million people signed petition against it / danger of protests similar to those of the fuel tax / issue of privacy / public disobedience so motorists refuse to pay.
- Issue of fairness; road pricing is a regressive tax / so hitting low income motorists hardest and might be unable to afford to drive.
- Lack of suitable alternatives such as bus and rail transport / so demand for road use might be price inelastic. Congestion might remain.
- Road pricing may lead to motorists using alternative routes which are not subject to a charge so shifting congestion elsewhere.

Level	Mark	Descriptor
Level 1	1-2	Identification of one or two points but no explanation
Level 2	3-4	Identification and explanation of two points.
Level 3	5-6	Identification and explanation of three or more points.
Level 4	7-9	One evaluation point, for example, discussing both sides of argument.
Level 5	10-12	Two or more evaluation points, discussing both sides of argument.

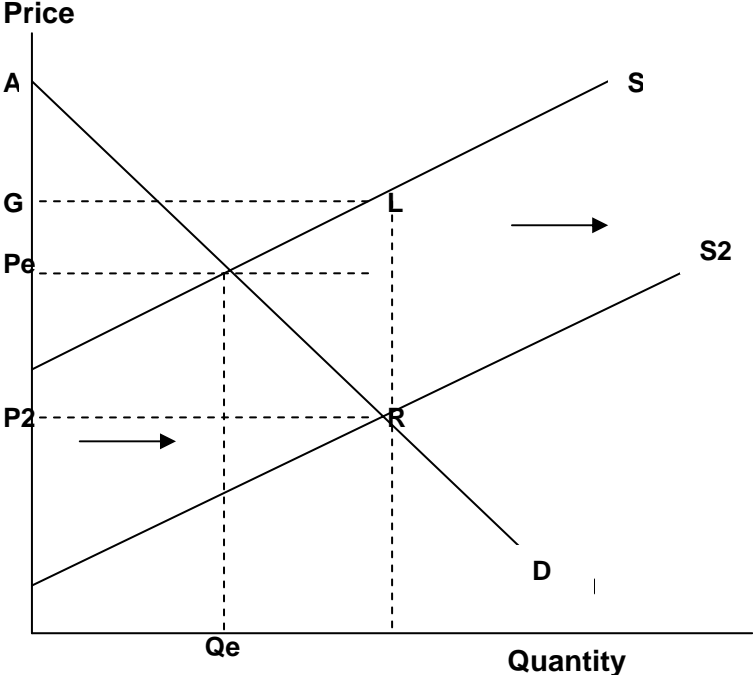
Question Number	Answer	Mark
10(d)	<p><b>KAA 4 marks</b>  <b>Identification (1 mark) and explanation (3 marks)</b></p> <ul style="list-style-type: none"> <li>• <b>Car sharing:</b> means fewer vehicles on road as people share journeys / reduce transport costs for car sharers / less parking costs / schemes exist via internet / large companies operate scheme for their staff e.g. Boots in Nottingham.</li> <li>• <b>Tax on workplace parking:</b> means higher cost of getting to work / encourage use of public transport or car sharing between employees / firms may have to raise wages to compensate.</li> <li>• <b>Use of hard shoulders on motorways:</b> means more road space available / use at peak times / cheap way of increasing road space (£6m compared to £25m for widening road) / quick method of increasing road space / successful pilot scheme on M42.</li> </ul> <p><b>Evaluation 4 marks (2+2 marks)</b></p> <p>Car sharing lanes</p> <ul style="list-style-type: none"> <li>➤ Issue of safety in sharing car with strangers</li> <li>➤ Limited number of car sharing lanes</li> <li>➤ Issue of convenience - only work if people have rigid work patterns / pick-up points / reliability / impact on mobility of labour.</li> <li>➤ Needs monitoring and enforcement to ensure motorists comply</li> </ul> <p>Tax on workplace parking</p> <ul style="list-style-type: none"> <li>➤ Reduce mobility of labour.</li> <li>➤ Discussion of who pays - employer or employee</li> <li>➤ Tax evasion: difficult to monitor and implement / issue of tax for visitors who use motor vehicle</li> <li>➤ Parking on nearby roads may cause hazards or congestion</li> <li>➤ Renting of household drives as an alternative parking space</li> </ul> <p>Use of hard shoulder</p> <ul style="list-style-type: none"> <li>➤ Issue of road safety for broken down vehicles and emergency services getting to crashes</li> <li>➤ May just encourage more motorists to use roads</li> <li>➤ Limited to motorways and main roads</li> <li>➤ Delays government spending on road widening and construction schemes</li> <li>➤ Time lag on implementing scheme</li> </ul>	(8)

NB: Award marks if candidates use different measures to the three mentioned explicitly in Extract 2 on lines 8-9. However, do not award any marks for discussing road pricing / road tolls, building more roads and subsidies to bus and rail travel.

Measures which can be accepted for awarding marks include:

- higher road tax (road fund licence)
- higher tax on motor vehicles
- improving quality of alternative modes of transport
- higher duty on fuel
- public awareness campaigns on adverse effects of congestion
- regulation (such as permits to drive on certain sections of road or odd / even licence plates for motor vehicles)

Question Number	Answer	Mark
10(e)	<p>KAA 6 marks</p> <ul style="list-style-type: none"> <li>• Definition or formula of income elasticity of demand (1 mark)</li> <li>• Bus travel is a normal good since as income rises so does demand for a good or service rise (1 mark)</li> <li>• Explicit reference to data in Figure 3 (household weekly income risen from £397 to £615 and bus travel increased from 5.0 billion km to 5.4 billion km) (1 mark).</li> <li>• A normal good has a positive income elasticity of demand (1 mark).</li> <li>• Calculation of income elasticity of demand as 0.14 (2 marks) (Award 1 mark if candidate has calculated either percentage increase in income at 54.9% or percentage change in bus travel at 8%)</li> <li>• Bus travel is income inelastic in demand (1 mark)</li> <li>• Definition of inferior good (as income rises, demand for a good or service falls (1 mark)</li> <li>• An inferior good has a negative income elasticity of demand) (1 mark).</li> <li>• Accept diagram showing normal good (rising income and quantity demanded) (1 mark)</li> </ul>	(6)

Question Number	Indicative content
10(f)	<p><b>KAA 6 marks</b></p> <ul style="list-style-type: none"> <li>• Definition of a subsidy (government grant to firms) (1 mark)</li> <li>• Written explanation: subsidy should reduce price and increase quantity of rail and bus travel (1 mark)</li> <li>• Subsidy acts to reduce production costs (1 mark)</li> <li>• Benefits include: (1+1+1+1 marks) <ul style="list-style-type: none"> <li>➤ increase in quality of bus and rail services such as frequency, reliability and cleanliness</li> <li>➤ increase in consumer surplus</li> <li>➤ increase in producer surplus</li> <li>➤ increase in employment in rail and bus travel industries</li> <li>➤ less congestion on roads / less environmental pollution</li> <li>➤ Help low income groups</li> </ul> </li> </ul> <p><b>Subsidy diagram (up to 3 marks)</b></p> <ul style="list-style-type: none"> <li>➤ Shift of supply curve to the right (1)</li> <li>➤ New equilibrium price and quantity (1)</li> <li>➤ Subsidy area (GLRP2) (1)</li> <li>➤ Incidence of subsidy area between consumers and producers (1)</li> </ul>  <p><b>NB: Accept MSB, MPB and MSC diagram</b>  <b>NB: Award a maximum of 3 KAA marks in this section if no</b></p>

		<p>diagram provided</p> <p>Evaluation (2+2 marks)</p> <ul style="list-style-type: none"> <li>• Discussion on magnitude of subsidy e.g. a small subsidy will have relatively little impact.</li> <li>• Discussion on the time period in which subsidy may be offered e.g. a short period of time will have relatively little impact.</li> <li>• Discussion on the time to implement improvements in bus and rail travel, for example, provision of additional buses and trains.</li> <li>• Discussion of impact on government finances: an opportunity cost / taxes may have to rise / government spending may fall elsewhere / increase in government borrowing / impact on future generations.</li> <li>• Discussion of price elasticity of demand, that is, public take-up of cheaper bus and rail travel. This could include consideration of the incidence of subsidy between producers and consumers.</li> <li>• The subsidy may lead to inefficiency in bus and rail travel as firms become dependent on government funds.</li> </ul>
Level	Mark	Descriptor
Level 1	1-2	Definition / explanation of one benefit of a subsidy
Level 2	3-4	Explanation of two benefits of a subsidy
Level 3	5-6	Diagrammatic analysis showing a subsidy
Level 4	7-10	One or more evaluation points offered

Question	Knowledge	Application	Analysis	Evaluation	Total
<b>Section A</b>					
Q1	2	1	1		4
Q2	2	1	1		4
Q3	1	2	1		4
Q4	1	2	1		4
Q5	2	1	1		4
Q6	2	1	1		4
Q7	1	2	1		4
Q8	1	2	1		4
<b>Total</b>	<b>12</b>	<b>12</b>	<b>8</b>		<b>32</b>
<b>Section B</b>					
Q9(a) (i)	2	3	1		6
Q9 (a) (ii)	2	1	1	2	6
Q9 (b) (i)	1	1	2	4	8
Q9 (b) (ii)	2	2	2	4	10
Q9 (c)	2	2	2		6
Q9 (d)	3	3		6	12
<b>Total</b>	<b>12</b>	<b>12</b>	<b>8</b>	<b>16</b>	<b>48</b>
Q10 (a)	2	2	2		6
Q10 (b)	2	2		2	6
Q10 (c)	2	2	2	6	12
Q10 (d)	2	2		4	8
Q10 (e)	2	2	2		6
Q10 (f)	2	2	2	4	10
<b>Total</b>	<b>12</b>	<b>12</b>	<b>8</b>	<b>16</b>	<b>48</b>



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