

**GCE**

**Economics**

Unit **F581**: Markets in Action

Advanced Subsidiary 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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## Annotations

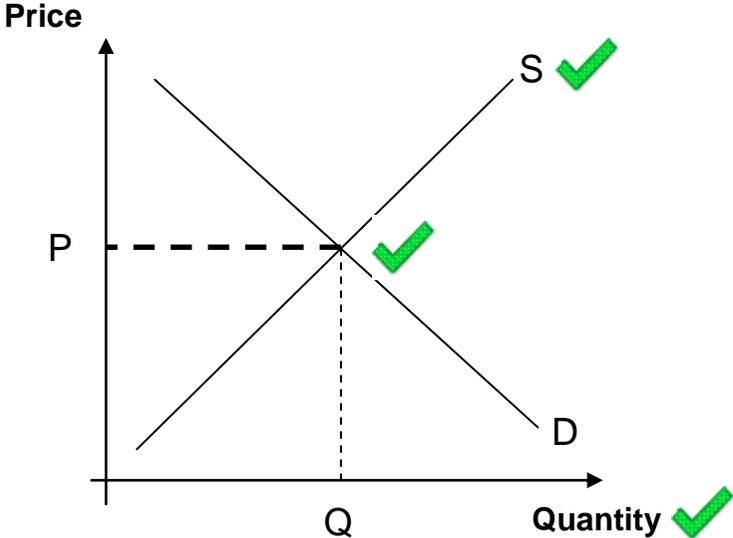
Please annotate **every** response, even if no credit is given.

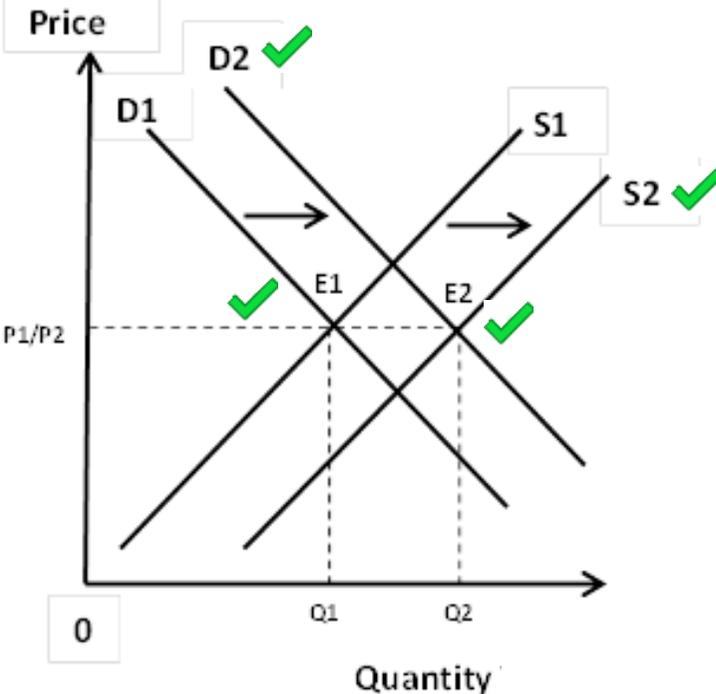
Annotation	Meaning
	Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
	Tick
	Cross
	Comment
	Benefit of doubt
	Level 1
	Level 2
	Level 3
	Level 4
	Effective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

Highlighting is also available, to highlight any particular points on the script.

Question		Answer	Marks	Guidance
1	(a)	<p><b>Define the term 'opportunity cost'.</b> For a clear definition which includes the (next) best alternative (1) foregone/given up (1).</p> <p>One mark for a part definition.</p>	2	<p>One mark for the idea of benefit lost.</p> <p>No mark for a response referring to 'price'.</p> <p>Can be worded the other way around: the benefit forgone (1) of the (next) best alternative (1)</p>
	(b)	<p><b>Explain how Airfix is influenced by opportunity cost when making production decisions.</b></p> <p>One mark for application of opportunity cost to Airfix, e.g. <b>giving up</b> production of one model for another; <b>giving up</b> ship models to produce plane models</p> <p><b>Once this mark has been awarded:</b></p> <p>A further mark for <b>how</b> Airfix is influenced, e.g. Airfix has to make a choice/decision between making two products; Airfix has to sacrifice production of one model; etc.</p>	2	<p>Airfix production is clearly stated in the question, so reference to other opportunity costs unrelated to production is irrelevant.</p> <p>Can be worded either way around.</p>
2		<p><b>State two factors of production.</b> land, labour, capital, enterprise</p>	2	<p>Up to two marks. One mark for each correctly stated factor of production. Do <b>NOT</b> accept any examples. Do <b>NOT</b> accept workers for Labour.</p>

Question	Answer	Marks	Guidance
3	<p><b>Explain one advantage and one disadvantage of specialisation to a firm such as Airfix.</b></p> <p>Advantages include:</p> <ul style="list-style-type: none"> <li>• increased output</li> <li>• more innovation</li> <li>• improved quality</li> <li>• increased productivity</li> <li>• developing and maintaining a brand image</li> <li>• economies of scale (see guidance)</li> </ul> <p>Disadvantages include:</p> <ul style="list-style-type: none"> <li>• reliance on a narrow range of products</li> <li>• specialist factor inputs are more expensive per unit</li> <li>• limited market size</li> <li>• reliance on one specialist resources/suppliers or factor immobility</li> <li>• reduced flexibility</li> <li>• boredom of workers / demotivation</li> </ul>	4	<p>One mark for the correct identification of an advantage and one mark for the correct identification of a disadvantage, plus a further one mark for each of two explanations</p> <p>For increased output as a result of specialisation leading to economies of scale (1) A2 candidates may develop this further by stating a reduction in AC</p> <p>Do <b>NOT</b> credit answers which relate to finite resources in general</p>

Question	Answer	Marks	Guidance
<p>4 (a)</p>	<p><b>Using a diagram, show how the market price of model kits is determined.</b></p> <p>Up to three marks for a correct answer:</p> <ul style="list-style-type: none"> <li>• one mark for p+q</li> <li>• one mark for s+d</li> <li>• one mark for an indication of the equilibrium price</li> </ul> <p>Place green ticks as shown below:</p> 	<p>3</p>	<p>Horizontal axis must be 'quantity', 'quantity traded' or 'quantity demanded and supplied'.</p> <p>Vertical axis <b>must</b> be 'price'.</p> <p>If horizontal axis is 'quantity demanded' or 'quantity supplied', do <b>NOT</b> award first mark but remaining marks can be accessed.</p> <p>If axes are labelled in any other way, <b>NO</b> marks for diagram.</p> <p>Ignore any shifts if original equilibrium is shown.</p>

Question	Answer	Marks	Guidance
(b)	<p>Using one demand and supply diagram, explain the likely impact of these changes on the market equilibrium.</p>  <ul style="list-style-type: none"> <li>• old equilibrium (E1 or P1 – Q1) (1)</li> <li>• shift to right of D (1)</li> <li>• shift to the right of S (1)</li> <li>• new equilibrium (E2 or P2 – Q2) or as appropriate (1).</li> </ul> <p>Award up to <b>TWO</b> marks for the <b>explanation</b>:</p> <ul style="list-style-type: none"> <li>• a change in price as appropriate (with specific reference to a diagram in terms of P1 to P2 – unless price is unchanged) (1)</li> <li>• an increase in quantity (with specific reference to diagram in terms of Q1 to Q2) (1)</li> </ul>	6	<p>If axes or curves have macro labels, <b>NO</b> marks for entire question.</p> <p>If axes are labelled incorrectly, marks can <b>only</b> be awarded for the correct shift in D and/or the correct shift in S (i.e. max 2 marks for whole question).</p> <p>These marks can only be awarded with two correct shifts.</p> <p>Price may rise, fall or remain the same – credit any new price which reflects correct shifts.</p>

Question	Answer	Marks	Guidance
(c)	<p><b>Other than a change in taste and fashion, state and explain how two determinants of demand might shift the demand curve for Airfix model kits.</b></p> <p>The question requires the candidates to use two demand determinants <b>other than taste and fashion</b> and relate each to Airfix.</p> <p>Determinants accepted:</p> <ul style="list-style-type: none"> <li>• income</li> <li>• price and/or availability of substitutes</li> <li>• price and/or availability of complements</li> <li>• population size</li> </ul> <p>Marks should be awarded as follows:  <b>one mark</b> for stating a correct determinant  <b>one mark</b> for explaining why the determinant affects demand plus <b>one mark</b> for the direction of the shift of the demand curve.</p>	<b>6</b>	<p>One mark for each correct identification, up to a maximum of <b>two</b> identifications, plus up to a <b>further two</b> marks for each of the two explanations.</p> <p>As the question states do <b>NOT</b> accept taste and fashion there should be no reference to any of these examples such as the last paragraph of the text.</p> <p>Examples:</p> <p>Income (1). If income increases, consumers are more able to afford model kits (1), so the demand curve for Airfix will shift to the right (1).</p> <p>Price of substitutes (1). If the price of substitute kits falls, consumers will switch to the cheaper product (1), shifting demand for Airfix kits to the left (1).</p> <p>Population (1). If population rises there will be more people able and willing to buy Airfix kits (1), shifting demand to the right (1).</p>

Question			Answer	Marks	Guidance
5	(a)	(i)	<p><b>Calculate the income elasticity of demand for the lower priced model kits.</b> (+) 0.2</p>	2	<p>Two marks for a correct calculation of YED.</p> <p>One mark if correct working but incorrect answer:</p> <p><math>\frac{-2\%}{-10\%}</math> or <math>\frac{-2}{-10}</math> or <math>\frac{2}{10}</math> or <math>\frac{2\%}{10\%}</math></p>
		(ii)	<p><b>Explain what the value you have calculated in part 5(a)(i) indicates to Airfix.</b> A candidate should explain what the figure shows for three marks such as:</p> <ul style="list-style-type: none"> <li>• YED is inelastic/demand is income inelastic (1)</li> <li>• Demand is insensitive/responds less than proportionally to changes in income (1)</li> <li>• Normal good (1)</li> <li>• As income rises demand for the product will increase/ as income falls demand for the product will fall (1)</li> <li>• An impact on demand for Airfix products e.g. Airfix products are relatively recession proof, as the economy grows demand for kits will grow (1)</li> </ul>	3	<p>OFR can apply in this part of the question if the candidate gets their calculation wrong, as the question requires the candidate to explain their own calculation.</p> <p>Do <b>NOT</b> award a mark for 'product is inelastic', 'product is income inelastic' or 'demand is inelastic'.</p>

Question	Answer	Marks	Guidance
(b)	<p><b>Comment on how a knowledge of price elasticity of demand would be helpful when making business decisions.</b></p> <p>Up to three marks for analysis:</p> <ul style="list-style-type: none"> <li>• PED helps businesses when setting/making decisions on price (1)</li> <li>• When demand is price elastic/PED is elastic firms should reduce prices (1)</li> <li>• Quantity demanded rises more than proportionally when there is a fall in price/demand is responsive to a fall in price (1)</li> <li>• When price is decreased, total revenue will increase (1).</li> </ul> <p>Up to three marks for comments:</p> <ul style="list-style-type: none"> <li>• Effect on revenue depends upon how price elastic demand is (1) – the more price elastic demand is the greater the increase in revenue for a given price reduction (1)</li> <li>• TR may change but effect on profit is unknown (1) as no information on costs (1)</li> <li>• PED calculations are estimates (1) which may be inaccurate/unreliable (1)</li> <li>• PED is based on historical data (1) which may not hold true over time (1)</li> <li>• PED varies along the demand curve (1)</li> <li>• Other factors affect demand (1) meaning final change in revenue/demand uncertain (1)</li> </ul>	6	<p>This question is the first answer requiring evaluation but some analysis marks <b>MUST</b> be gained for the comment marks to be awarded.</p> <p><b>Nothing for an answer which assumes demand is price inelastic, as the stem of the question specifies ‘price elastic’.</b></p> <p>Use one <span style="border: 1px solid red; padding: 0 2px;">C</span> annotation for each comment mark</p> <p>One fully developed comment can be awarded up to three marks.</p>

Question	Answer	Marks	Guidance
6 (a)	<p><b>Comment on the extent to which the Chinese government should aim to reduce the negative externalities of pollution.</b></p> <p><b>First, award up to three marks for an analysis</b> of the problems and their solution:</p> <p>Overproduction or overconsumption (1), allocative inefficiency (1), economy not operating at social optimum (1), price at wrong level (1), China fails to consider external costs (1)</p> <p>Intervening will reduce the welfare loss (1) <b>and</b> therefore correct/reduce the market failure (1), will improve allocative/economic efficiency (1), will move the economy towards the socially optimal allocation of resources (1)</p> <p><b>Second, IF fewer than three analysis marks have been awarded</b>, the candidate may be awarded up to two marks for examples:</p> <ul style="list-style-type: none"> <li>• example of third party who is harmed (1) e.g. other nations are affected by Chinese pollution</li> <li>• example of how third parties are harmed (1)</li> <li>• example of how third parties might benefit from reduction in negative externalities (1) eg. cost to health service reduced</li> </ul> <p><b>Maximum of three marks for analysis/examples.</b></p> <p><b>If at least one ANALYSIS mark has been awarded, award up to three comment marks:</b></p> <ul style="list-style-type: none"> <li>• intervention is valid if a net benefit of reduction in external costs is greater than the cost of intervention</li> <li>• it is difficult to quantify the external cost</li> <li>• intervention is valid only if Government Failure can be avoided</li> </ul>	6	<p>Up to three marks for analysis/examples and up to a further three marks for comment if at least one analysis mark has been awarded.</p> <p><b>No credit should be given for answers which approach the question by considering specific policy solutions e.g. pollution tax (since this is the subject matter of Q6b).</b></p> <p>Accept <math>MSB=MSC</math> (1) as the target for action.</p> <p>The case study contains the statement “The Chinese government has been under pressure, both domestically and internationally, to reduce pollution.” Award one mark if this is used as evidence that China should act.</p> <p>Use one <span style="border: 1px solid red; padding: 0 2px;">E</span> annotation for each comment mark</p>

Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"><li>• the extent of market failure may be too serious for successful intervention</li><li>• intervention seeks to reach socially/allocatively/economically efficient level of pollution, not remove it altogether</li></ul>		

Question		Answer	Marks	Guidance	
				Content	Levels of response
	(b)	<p><b>Discuss whether indirect taxation is the most effective policy measure to correct the market failure arising from the negative externalities of production.</b></p> <p><i>The extract refers to the environmental damage occurring in China and that the manufacturing of (plastic and Airfix) products adds to this. The Chinese government is proposing a tax but questions arise as to whether this is the best approach.</i></p> <p><b>Case for an indirect tax could include</b></p> <ul style="list-style-type: none"> <li>reduces the volume of output and so reduces negative externalities</li> <li>deters production by raising costs of production</li> <li>it will lead to a shift to the left of S meaning that less is supplied and consumed at a higher price</li> <li>it has a greater effect if the PED is elastic</li> </ul> <p><b>Case against an indirect tax could include:</b></p> <ul style="list-style-type: none"> <li>it would make Chinese firms less internationally competitive</li> <li>the correct value of the tax is difficult to determine</li> <li>costs of policing/collecting</li> <li>deters consumption</li> <li>may be absorbed by the firm rather than causing output to reduce</li> </ul>	18	<p><b>Use second <span style="border: 1px solid red; padding: 0 2px;">EE</span> annotation to indicate elaboration.</b></p> <p>18 marks: More thorough justification or elaboration of the statement. 17 marks: Some justification or elaboration of the statement.</p> <p><b>Use one <span style="border: 1px solid red; padding: 0 2px;">EE</span> to show where this statement appears in the answer.</b></p> <p>16 marks: A statement that indirect taxation is or is not the <b>most</b> effective solution based on preceding evaluation.</p> <p>Maximum of three <span style="border: 1px solid red; padding: 0 2px;">L4</span> annotations should appear on the script. (Put <span style="border: 1px solid red; padding: 0 2px;">SEEN</span> alongside further discussion points.)</p> <p>15 marks: Two developed evaluative points or three or more evaluative points with at least one developed</p> <p>14 marks: One developed evaluative point or two or more undeveloped evaluative points</p> <p>13 marks: One evaluative point lacking development</p>	<p><b>Level 4 (13–18)</b> <b>For a discussion of policies which correct the market failure arising from the negative externalities of production.</b></p> <p>All answers at this level must be underpinned with appropriate theoretical concepts.</p> <p>16–18 marks – There must be a supported judgment based on the preceding analysis and it should reflect the strength of the analysis and the evaluation. This is likely to consider alternative solutions.</p> <p>13–15 marks – There must be a discussion of points for and against indirect taxation <b>or</b> indirect taxation will have been compared with other methods of correcting market failure.</p> <p><i>Complex ideas have been expressed clearly and fluently using a style of writing appropriate to complex subject matter. Sentences and paragraphs, consistently relevant, have been well structured using appropriate terminology. There may be few, if any, errors of spelling, punctuation and grammar.</i></p>

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<ul style="list-style-type: none"> <li>will not reduce output by much if PED is inelastic</li> <li>may reduce positive externalities of production and consumption</li> </ul> <p><b>If included, effectiveness of alternative solutions must be compared with that of indirect tax:</b></p> <ul style="list-style-type: none"> <li>outright ban</li> <li>output restrictions</li> <li>pollution permits</li> </ul> <p>Do <b>not</b> credit information provision as this relates to a leftward shift in demand.</p> <p><b>Level 3 Band 2 (11-12 marks)</b></p> <ul style="list-style-type: none"> <li>the market becomes more allocatively efficient</li> <li>this solves/reduces overproduction</li> <li>an explanation of how negative externalities are reduced</li> <li>connecting shift leftwards of supply with correcting “negative externalities of production” – how this works</li> </ul>		<p><b>Max. of two <span style="border: 1px solid red; padding: 0 2px;">L3</span> annotations</b></p> <p><b>Place second <span style="border: 1px solid red; padding: 0 2px;">L3</span> annotation where L3 B2 is awarded.</b></p> <p><b>Band 2 points:</b></p> <p>12 marks: two Band 2 points or one developed Band 2 point</p> <p>11 marks: one Band 2 point</p>	<p><b>Level 3 (9–12 marks)</b></p> <p><b>For an analysis of the use of indirect taxation to reduce negative externalities</b></p> <p>This must refer to an analysis of the focus of the actual question posed – not to the question which the candidate would have liked to have been asked. It must also incorporate, towards the top end of Level 3 mark range, width and/or depth of analysis illustrating how indirect taxation affects the market.</p> <p>11–12 marks – there are likely to be a number of undeveloped analytical points or a couple of analytical points which are well developed. This should include analysis of how imposing an indirect tax will lead to reduced supply through raising costs. A diagram is likely but not</p>

Question		Answer	Marks	Guidance	
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		<p><b>Level 3 Band 1 (9-10 marks)</b></p> <ul style="list-style-type: none"> <li>supply curve shifts to the left <b>because</b> indirect taxes effectively increase producer costs</li> <li>price rises from P to P1</li> <li>quantity falls from Q to Q1</li> </ul> <p>Maximum of nine marks for a static answer which only identifies the new market equilibrium after a tax is imposed.</p> <p>For <b>Level 2</b> marks to be awarded candidate must show application either to negative externalities of production, e.g. pollution, global warming, or to an indirect tax and its effect on the market.</p> <p>Level 2 responses may offer an unexplained diagram or raise, but not analyse, some of the following:</p> <ul style="list-style-type: none"> <li>indirect tax will decrease supply</li> <li>statement that indirect taxation will shift supply to the left/inward/upward (or an unexplained taxation diagram showing this)</li> <li>indirect tax will raise the price of the products</li> </ul>		<p>Place one <b>L3</b> annotation where <b>L3 B1</b> is awarded.</p> <p>10 marks: more than one Band 1 point made.</p> <p>9 marks: one Band 1 point made.</p> <p>Place one <b>L2</b> annotation per applied point and a further <b>L2</b> annotation for each development of the same point.</p> <p><b>Max. of 4 L2 annotations</b></p> <p>8 marks: one fully developed applied point <b>and</b> at least one other applied point</p> <p>7 marks: one fully developed applied point <b>or</b> three applied points</p> <p>6 marks: one developed applied point <b>or</b> two applied points</p> <p>5 marks: unexplained indirect taxation diagram (shifting supply to left) <b>or</b> one point on indirect taxation or on the</p>	<p>required.</p> <p>9–10 marks – there are likely to be only one/two undeveloped analytical points, or one analytical point which is somewhat developed. Such as an explanation of an indirect tax leading to a rise in price – the impact upon the market is unclear.</p> <p><i>Relatively straightforward ideas have been expressed with 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.</i></p> <p><b>Level 2 (5–8 marks)</b></p> <p><b>For an application of knowledge and understanding of indirect taxation</b></p>

Question		Answer	Marks	Guidance	
				Content	Levels of response
		<ul style="list-style-type: none"> <li>advantages or disadvantages of indirect taxation applied to a market failing due to negative externalities <b>where L3 B2 has not been attained</b></li> </ul> <p><b>Level 1</b> <b>1-4 marks</b></p> <ul style="list-style-type: none"> <li>Example(s) of indirect tax, e.g. VAT</li> <li>Indirect tax raises the cost of production</li> <li>Market failure is where the free market fails to achieve allocative efficiency</li> <li>Non-applied market failure diagram</li> <li>Definition of negative externalities / indirect taxation</li> </ul>		impact of negative externalities <b>or</b> one example of a negative externality  Place one <b>L1</b> annotation per correct statement, up to a maximum of four (or until a higher level is awarded)	This sort of response will include unsupported/unsubstantiated statements as to how indirect taxation can/cannot be used to solve market failure.  <i>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.</i>  <b>Level 1 (1–4 marks)</b> <b>For knowledge only of indirect taxation and/or the concept of market failure</b>  <i>Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar that will be noticeable and intrusive. Writing may also lack legibility.</i>

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