

## **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
BP	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.
<b>*</b>	Tick
×	Cross
С	Comment
BOD	Benefit of doubt
LI	Level 1
L2	Level 2
L3	Level 3
L4	Level 4
EE	Effective evaluation
^	Omission
NAQ	Not answered question
SEEN	Noted but no credit given
TV	Too vague
OFR	Own figure rule

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

C	uestion	Answer	Marks	Guidance
1	(a)	Define the term 'opportunity cost'. For a clear definition which includes the (next) best alternative (1) foregone/given up (1).  One mark for a part definition.	2	One mark for the idea of benefit lost.  No mark for a response referring to 'price'.  Can be worded the other way around: the benefit forgone (1) of the (next) best alternative (1)
	(b)	Explain how Airfix is influenced by opportunity cost when making production decisions.  One mark for application of opportunity cost to Airfix, e.g. giving up production of one model for another; giving up ship models to produce plane models  Once this mark has been awarded:  A further mark for how 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.	2	Airfix production is clearly stated in the question, so reference to other opportunity costs unrelated to production is irrelevant.  Can be worded either way around.
2		State two factors of production. land, labour, capital, enterprise	2	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.

Question	Answer		Guidance
3	Explain one advantage and one disadvantage of specialisation to a firm such as Airfix.  Advantages include:  increased output  more innovation  improved quality  increased productivity  developing and maintaining a brand image  economies of scale (see guidance)  Disadvantages include:  reliance on a narrow range of products  specialist factor inputs are more expensive per unit  limited market size  reliance on one specialist resources/suppliers or factor immobility  reduced flexibility  boredom of workers / demotivation	4	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  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  Do NOT credit answers which relate to finite resources in general

Question	Answer		Guidance
4 (a)	Using a diagram, show how the market price of model kits is determined.  Up to three marks for a correct answer:  one mark for p+q one mark for an indication of the equilibrium price  Place green ticks as shown below:  Price  Q Q Quantity	3	Horizontal axis must be 'quantity', 'quantity traded' or 'quantity demanded and supplied'.  Vertical axis <b>must</b> be 'price'.  If horizontal axis is 'quantity demanded' or 'quantity supplied', do <b>NOT</b> award first mark but remaining marks can be accessed.  If axes are labelled in any other way, <b>NO</b> marks for diagram.

Question	Answer	Marks	Guidance
(b)	Using one demand and supply diagram, explain the likely impact of these changes on the market equilibrium.  Price  D2  Q1  Q2  Quantity  old equilibrium (E1 or P1 – Q1) (1) shift to right of D (1) shift to the right of S (1) new equilibrium (E2 or P2 – Q2) or as appropriate (1).  Award up to TWO marks for the explanation:	6	If axes or curves have macro labels, <b>NO</b> marks for entire question.  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).  These marks can only be awarded with two correct
	<ul> <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>		shifts.  Price may rise, fall or remain the same – credit any new price which reflects correct shifts.

Question	Answer	Marks	Guidance
(c)	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.  The question requires the candidates to use two demand determinants other than taste and fashion and relate each to Airfix.  Determinants accepted:  income  price and/or availability of substitutes  price and/or availability of complements  population size  Marks should be awarded as follows:  one mark for stating a correct determinant one mark for explaining why the determinant affects demand	6 6	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.  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.  Examples:  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).  Price of substitutes (1). If the price of substitute kits falls, consumers will switch to the cheaper product (1),
	plus <b>one mark</b> for the direction of the shift of the demand curve.		shifting demand for Airfix kits to the left (1).  Population (1). If population rises there will be more people able and willing to buy Airfix kits (1), shifting demand to the right (1).

Qı	uestic	on	Answer	Marks	Guidance
5	(a)	(i)	Calculate the income elasticity of demand for the lower priced model kits.  (+) 0.2	2	Two marks for a correct calculation of YED.  One mark if correct working but incorrect answer:  -2% or -2 or 2 or 2% -10% -10 10%
		(ii)	<ul> <li>Explain what the value you have calculated in part 5(a)(i) indicates to Airfix.</li> <li>A candidate should explain what the figure shows for three marks such as:</li> <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	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.  Do <b>NOT</b> award a mark for 'product is inelastic', 'product is income inelastic' or 'demand is inelastic'.

Q	uestion	Answer	Marks	Guidance
6	(a)	Comment on the extent to which the Chinese government should aim to reduce the negative externalities of pollution.  First, award up to three marks for an analysis of the problems and their solution:	6	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.
		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)  Intervening will reduce the welfare loss (1) and therefore		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).
		correct/reduce the market failure (1), will improve allocative/economic efficiency (1), will move the economy towards the socially optimal allocation of resources (1)		Accept MSB=MSC (1) as the target for action.
		<ul> <li>Second, IF fewer than three analysis marks have been awarded, the candidate may be awarded up to two marks for examples:</li> <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>		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.
		Maximum of three marks for analysis/examples.  If at least one ANALYSIS mark has been awarded, award up to three comment marks:  intervention is valid if a net benefit of reduction in external costs is greater than the cost of intervention  it is difficult to quantify the external cost		Use one annotation for each comment mark
		intervention is valid only if Government Failure can be avoided		

Question	uestion Answer		Guidance	
	<ul> <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	Guida	nce
			Content	Levels of response
(b)	Discuss whether indirect taxation is the most effective policy measure to correct the market failure arising from the negative externalities of production.  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.  Case for an indirect tax could include  reduces the volume of output and so reduces negative externalities  deters production by raising costs of production  it will lead to a shift to the left of S meaning that less is supplied and consumed at a higher price  it has a greater effect if the PED is elastic  Case against an indirect tax could include:  it would make Chinese firms less internationally competitive  the correct value of the tax is difficult to determine  costs of policing/collecting  deters consumption  may be absorbed by the firm rather than causing output to reduce	18	Use second	For a discussion of policies which correct the market failure arising from the negative externalities of production.  All answers at this level must be underpinned with appropriate theoretical concepts.  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.  13–15 marks – There must be a discussion of points for and against indirect taxation or indirect taxation will have been compared with other methods of correcting market failure.  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.

Question	Answer		Guidance		
			Content	Levels of response	
	<ul> <li>will not reduce output by much if PED is inelastic</li> <li>may reduce positive externalities of production and consumption</li> <li>If included, effectiveness of alternative solutions must be compared with that of indirect tax:         <ul> <li>outright ban</li> <li>output restrictions</li> <li>pollution permits</li> </ul> </li> <li>Do not credit information provision as this relates to a leftward shift in demand.</li> </ul>		Max. of two annotations	Level 3 (9–12 marks)  For an analysis of the use of indirect taxation to reduce negative externalities	
	<ul> <li>Level 3 Band 2 (11-12 marks)</li> <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>		Place second annotation where L3 B2 is awarded.  Band 2 points:  12 marks: two Band 2 points or one developed Band 2 point  11 marks: one Band 2 point	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.  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	

Question	Answer	Marks	Guidance	
			Content	Levels of response
	<ul> <li>Level 3 Band 1 (9-10 marks)</li> <li>supply curve shifts to the left because indirect taxes effectively increase producer costs</li> <li>price rises from P to P1</li> <li>quantity falls from Q to Q1</li> </ul>		Place one Band 1 point made.  Place one annotation where L3 B1 is awarded.  10 marks: more than one Band 1 point made.	required.
	Maximum of nine marks for a static answer which only identifies the new market equilibrium after a tax is imposed.		Place one L2 annotation per	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.  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.
	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.		applied point and a further annotation for each development of the same point.  Max. of 4  annotations	
	Level 2 responses may offer an unexplained diagram or raise, but not analyse, some of the following:  indirect tax will decrease supply statement that indirect taxation will		8 marks: one fully developed applied point <b>and</b> at least one other applied point  7 marks: one fully developed applied point <b>or</b> three applied points	
	shift supply to the left/inward/upward (or an unexplained taxation diagram showing this)		6 marks: one developed applied point <b>or</b> two applied points	Level 2 (5–8 marks)  For an application of knowledge and understanding of indirect taxation
	indirect tax will raise the price of the products		5 marks: unexplained indirect taxation diagram (shifting supply to left) <b>or</b> one point on indirect taxation or on the	diacistanding of maneet taxation

Question	Answer	Marks	Guidance	
			Content	Levels of response
	<ul> <li>advantages or disadvantages of indirect taxation applied to a market failing due to negative externalities where L3 B2 has not been attained</li> <li>Level 1         <ul> <li>1-4 marks</li> <li>Example(s) of indirect tax, e.g. VAT</li> </ul> </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 or one example of a negative externality  Place one lannotation 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.  Some simple ideas have been expressed in an appropriate context. There are likely to be some errors of spelling, punctuation and grammar of which some may be noticeable and intrusive.  Level 1 (1–4 marks) For knowledge only of indirect taxation and/or the concept of market failure  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.

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