

# F581 Markets in Action

## Subject-specific Instructions

- 1 The paper is to be marked to AS standard.
- 2 Marking should be positive: marks should not be subtracted for errors or inaccuracies.
- 3 In assessing quantitative answers, the 'own figure rule' (OFR) must be applied, ie a candidate must be given credit for calculations which, though wrong, are consistent with an earlier error.
- 4 The Mark Scheme refers to possible issues/content that candidates might use. These suggestions are neither exhaustive nor necessarily required.
- 5 The quality of written communication will be assessed in the answer to the final part question.

A set number of marks for written communication is not a requirement. However, where a levels of response mark scheme is used, the following general criteria for assessing the quality of written communication will apply. These criteria are integrated within the more specific levels of response shown in the individual mark schemes for each appropriate question.

### Level 4

Complex ideas have been expressed clearly and fluently using a style of writing appropriate to the complex subject matter. Sentences and paragraphs, consistently relevant, have been well structured, using specialist technical terminology where appropriate. There may be few, if any, errors of spelling, punctuation and grammar.

### Levels 2 and 3

Relatively straightforward ideas have been expressed clearly and quite fluently, using an appropriate style of writing. Arguments are generally relevant, though may occasionally stray from the point and are broadly logical and coherent. There will be some errors of spelling, punctuation and grammar, but these will not be intrusive or totally obscure the meaning.

### Level 1

Simple ideas have been expressed, generally in a style lacking clarity and fluency. Arguments will have limited coherence and structure, often being of doubtful relevance to the main focus of the question. There are errors of spelling, punctuation and grammar, which will be noticeable and intrusive. Writing may lack legibility.

Exceptionally, answers which are assessed as L1, L2 or L3 from the individual unit mark scheme criteria may be awarded an additional mark for the quality of their written communication in any particular and appropriate question.

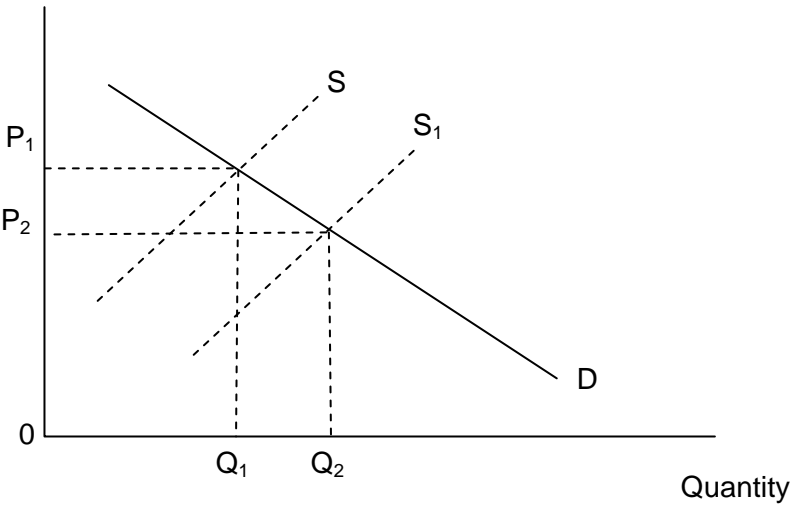
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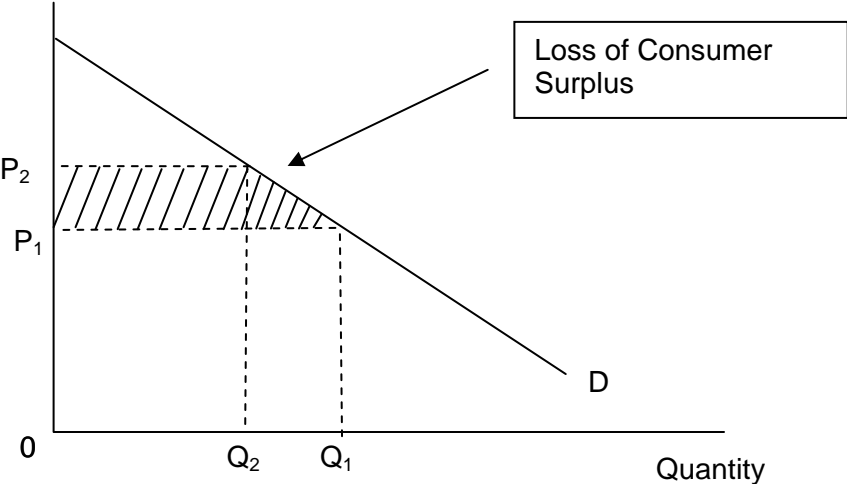
Mark Scheme

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Question	Expected Answer	Mark	Rationale
1	<p><b>Using an example in each case, state <u>two</u> factors of production that are required to provide air transport services.</b></p> <p>Various possible answers, including</p> <p>Land - airport sites, essential material inputs for aeroplanes, fuel oil for aircraft.  Labour - pilots, ground staff, cabin crew  Capital - aeroplanes, airport infrastructure  Enterprise - risk-taking qualities of entrepreneurs such as O'Leary, Branson, Hadji</p> <p>Award 1 mark for correct identification and a further 1 mark for an appropriate example for the provision of air transport services (x2).</p>	[4]	<p><i>Labour and capital are most likely. Be generous on interpretation of application but it must be examples of air transport services e.g. Do not accept actual space, machines or employees as examples unless applied to air transport provision.</i></p>

Question	Expected Answer	Mark	Rationale
2	<p>(a) <b>State and explain <u>two</u> determinants of demand for air travel for leisure purposes.</b></p> <p>This question requires candidates to draw upon their knowledge of the recognised determinants of demand. The information provided refers to two of these:</p> <p>Price of air transport - cheap fares attract passengers, high fares deter passengers or tax imposed (eg APD)</p> <p>Taste &amp; Fashion - new routes are available through low cost carrier expansion, particularly for leisure purposes. Weather and advertising should be accepted as examples of a Change in Taste; consumer confidence is an example of taste.</p> <p>Other possibilities could be:</p> <p>Incomes - changing real incomes mean that more/less disposable income is available for leisure purposes</p> <p>Price and availability of substitutes - other leisure opportunities are likely to have increased in price relative to the price of air transport</p> <p>The price and availability of complements – e.g. exchange rates, package deals etc</p> <p>Population – Size or change in population or demographic composition.</p> <p>Award 1 mark for each determinant plus up to 2 further marks for a relevant explanation as to why demand has increased. The second of these development marks should only be awarded where change in demand is clearly stated.</p>	[6]	<p><i>Answers must be in terms of the recognised determinants of demand as shown alongside.</i></p> <p><i>(0 + 1 or 2) is an acceptable allocation if determinant not stated but only applied.</i></p> <p><i>DO NOT accept “cost of travel”.</i></p>

Question	Expected Answer	Mark	Rationale
<p>(b)</p> <p>Price of tickets</p>	<p><b>Using a demand and supply diagram, explain how the growing number of low cost flights has affected the market for air travel in Europe.</b></p>  <p>Up to 3 marks for a diagram: – shift of S (1) old equilibrium (1) new equilibrium (1)</p> <p>Up to 3 marks for an explanation: – the growing number of low cost airlines affects the market equilibrium through a shift to the right of S (1); the outcome is an increase in quantity (1) and a decrease in price (1); the extent of change will depend on the price elasticity of demand (1) and the extent of the shift of S (1)</p> <p>Award 3 + 3 marks</p>	<p>[6]</p>	<p><i>Award no marks for diagram if axes are wrongly labelled or S and D are the wrong way round.</i></p> <p><i>The increase in supply MUST say SHIFT or movement to the RIGHT. This could be with reference to the diagram.</i></p> <p><i>Must be clear that quantity demanded has increased.</i></p>

Question	Expected Answer	Mark	Rationale
3	<p><b>(a)</b> Define the term 'consumer surplus.'</p> <p>For a clear definition such as 'the difference between what a consumer values the goods or services purchased and the price that is actually required to make a purchase'. (2 marks)</p> <p>Award 1 mark for a general but less than precise understanding.</p> <p>A diagram is not acceptable since the question directive word says 'define'.</p>	[2]	<p><i>Accept rising marginal utility as an alternative approach.</i></p>
<p>Price of tickets</p>	<p><b>(b)</b> Using a diagram, comment on how the increase in ticket prices in February 2007 might have affected the consumer surplus of EU air passengers.</p> 	[8]	<p>Axis and D must be labelled to access marks. So if:</p> <ul style="list-style-type: none"> <li>- no labels on axes</li> <li>- wrong labels on axes</li> <li>- no label for D</li> </ul> <p>No marks for diagram.</p> <p>An alternative diagram is one where a shift to the left of S is indicated as a consequence of the increase in APD in February 2007.</p>

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	<p>Award up to 4 marks for a clear diagram which shows an increase in price and a reduction in consumer surplus.</p> <p>Where diagram is wrong award            1 mark for area of original CS            1 mark for original P and Q            1 mark for increase P &amp; falling Q            1 mark for area of new CS (could be identified in text)</p> <p>Award up to a further 4 marks for relevant comments such as:</p> <ul style="list-style-type: none"> <li>- Consumer surplus will be reduced = 1 mark only</li> <li>- Business travel may be even less affected</li> <li>- Travel outside the EU is more affected</li> <li>- APD is likely to be relatively high in relation to the total price paid for 'binge flights' - net effect on amount of consumer surplus is uncertain.</li> <li>- The amount of consumer burden of increased taxation is determined by the PED value</li> </ul> <p>One extensive or two brief comments can get 4 marks.</p>		<p><i>Diagram which shows a supply line shift to the left is equally acceptable.</i></p> <p><i>Answers that do not refer to Fig 1 are unlikely to score more than 2 marks in the comment section.</i></p> <p><i>Accept that another change in determinants of demand may offset the change in APD e.g. rise income, producer reducing price etc</i></p>

Question	Expected Answer	Mark	Rationale
4	<p><b>(a)</b> Fig.2 shows that a 28% increase in ticket prices leads to a 40% decrease in the quantity demanded. Calculate the price elasticity of demand.</p> <p>Answer (-) 1.42857 or 1.43, Accept 1.4</p> <p>Award 1 mark from correct transposition but wrong arithmetic</p>	[2]	<p><i>These are the only correct answers</i></p> <p><i>No marks for formula</i></p> <p><i>1.42 is not correct.</i></p>
	<p><b>(b)</b> Explain the meaning of the price elasticity of demand figure you have calculated.</p> <p>Award 1 mark for each of:</p> <ul style="list-style-type: none"> <li>- elastic</li> <li>- relative change in Q is greater than relative change in P</li> <li>- responsive to a change in price</li> <li>- a fall in price will lead to an increase in revenue</li> <li>- a rise in price will lead to a fall in revenue</li> <li>- likely to indicate substitutes</li> </ul> <p style="text-align: right;">Maximum 2 marks</p>	[2]	<p><i>No marks awarded for numerical elaboration.</i></p> <p><i>Apply OFR if calculation in part (a) is wrong, say inelastic</i></p>

Question	Expected Answer	Mark	Rationale
(c)	<p><b>Suppose the government aims to reduce demand from ‘binge flyers.’ Comment on how it might use the information in Fig 2 to achieve this objective.</b></p> <p>Award up to 4 marks for: If it wanted to cut back on ‘binge flying’ then the obvious thing to do would be to increase APD to £35 as this would produce the biggest fall in demand. An increase to £15 would still only have a modest negative impact so would appear to be not sufficient to really curtail demand.</p> <p>Understanding of PED estimates plus up to 2 marks for their interpretation.</p> <p>Award up to 2 marks for comment such as values are estimates, other information required, information may become outdated, other factors may shift the demand curve cancelling the QD affect. Alternatively the candidate might comment on how very useful the data is to them in setting the correct tax.</p>	[6]	<p><i>Fig 2 can be used to produce the following estimates of price elasticity of demand:</i></p> <p><i>Increase from £5 to £10      -0.70</i>  <i>“ “ “ “ £15                      -1.07</i>  <i>“ “ “ “ £25                      -1.43</i>  <i>“ “ “ “ £35                      -1.57</i></p> <p>Candidates can be awarded up to 2 marks for further calculations such as those above</p> <p><i>Answers that do not use data in Fig 2-2 max</i></p>



Question	Expected Answer	Mark	Rationale
5	<p><b>(a) Define the term 'negative externalities.'</b></p> <p>A negative externality arises where the actions of one group result in a negative side effect or impact upon a third party (2). Where social costs of an activity are greater than the private costs.(2)</p> <p>Award 1 mark for a more general understanding. i.e negative effect not clear</p>	<b>[2]</b>	<i>No marks for an example</i>
	<p><b>(b) Explain why negative externalities arising from an increase in air transport are an example of market failure.</b></p> <p>This is evidenced in the information provided through CO<sub>2</sub> emissions, excessive noise disturbance and congestion around major airports (1).</p> <p>Plus 3 points possibly from:  Market failure arises when the price paid is not equal to the full cost of a particular action.  With negative externalities, the market fails for example in the case where there is noise disturbance since the full costs are not paid for by the airline or its passengers.  Residents on the flight path have to suffer from the noise and could be forced into spending money to block out aircraft noise.  Over consumption occurring maybe explained in terms of allocative inefficiency.</p>	<b>[4]</b>	<p><i>A fully labelled diagram could be used to explain why the market failure has arisen in air transport for 3 marks.</i></p> <p><i>Answer must develop the idea of market failure not just restate part a.</i></p> <p><i>Accept other examples of costs incurred by local residents (house values fall) or to the NHS &amp; the tax payer.</i></p>

Question	Expected Answer	Mark	Rationale
6	<p><b>Discuss whether taxation is the most effective solution to the market failures arising from negative externalities.</b></p> <p>This question requires a discussion of the merits of taxation as a means of dealing with the market failures that arise when there are negative externalities. The use of 'most effective' in the question implies that other means are available and should be discussed. No specific context is given in the question, although clearly some application to air transport is relevant.</p> <p><i>Indirect taxation is a very appropriate way of dealing with this type of market failure. It aims to 'get the price right' and is consistent with the polluter pays principle. The effect of an indirect tax is that the supply curve shifts to the left, increasing price and reducing output. Ideally the producer should bear the full cost of the tax. There are various practical problems of implementation, eg determining the amount of tax; some goods may have inelastic demand, producers may not always pay the full tax. The effectiveness of these alternatives is relevant, as would be a discussion of how a range of methods could be used.</i></p> <p><b>L4 For a discussion of whether taxation is the most effective solution to the market failures arising from negative externalities. [13-18]</b></p> <p>A balanced answer that looks at the case for and against taxation, particularly indirect taxation.</p> <p>For 16-18 marks, the answer should <b>discuss</b> the relative advantages of taxation compared to other means of dealing with negative externalities. Where the answer only considers indirect taxation or an alternative, then a maximum of 15 marks should be awarded.</p> <p>All answers at this level must be underpinned with appropriate theoretical concepts.</p>	[18]	<p><i>Alternative approaches include</i></p> <ul style="list-style-type: none"> <li>• <i>payment of subsidies,</i></li> <li>• <i>regulations, standards</i></li> <li>• <i>legal controls</i></li> <li>• <i>and the use of tradable permits as in the European ETS.</i></li> </ul>

Question	Expected Answer	Mark	Rationale
	<p>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.</p> <p><b>L3 For an analysis of the use of taxation as a means of solving the market failures arising from negative externalities. [9 – 12]</b></p> <p>Such answers must have relevant analytical underpinning of how taxation can address this problem of market failure.</p> <p>For 11-12 marks it is likely but not essential that the answer will contain a correct diagram, as well as depth of analysis.</p> <p>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.</p> <p><b>L2 For an application of knowledge of how taxation is used to solve market failures arising from negative externalities. [5 – 8]</b></p> <p>Answers at the top of this level are likely to be largely framed around a series of examples and how various types of taxation can be used to solve market failure. For 5-6 marks typically the effects of introducing a tax in terms of an increase in price and a fall in quantity produced should be applied in principle. Vague application of stimulus is worth 5-6 marks.</p> <p>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.</p>		<p><i>A diagram without explanation is L2.</i></p> <p><i>Examples are likely to enhance the quality of the answer. This could include a <b>list</b> of alternative approaches to taxation.</i></p> <p><i>Watch out for statements which might appear as L4 but lack correct analytical underpinning and hence are L2 – Critical Understanding.</i></p>

Question	Expected Answer	Mark	Rationale
	<p><b>L1 For a knowledge and understanding of taxation and market failures arising from negative externalities. [1 – 4]</b></p> <p>Such answers will be shallow both in terms of knowledge of taxation and its use in this context. For 3-4 marks it will be necessary to understand both taxation AND market failure</p> <p>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.</p>		