

**Advanced Subsidiary GCE  
ECONOMICS**

Unit F581: Markets in Action

**Specimen Paper**

Additional Materials: Answer Booklet (...pages)

**F581**

Morning/Afternoon

Time: 1 hour 30 minutes



**INSTRUCTIONS TO CANDIDATES**

- Answer **all** the questions.

**INFORMATION FOR CANDIDATES**

- The number of marks for each question is given in brackets [ ] at the end of each question or part of question.
- The total number of marks for this paper is **60**.

**ADVICE TO CANDIDATES**

- Read each question carefully and make sure you know what you have to do before starting your answer.
- You will be assessed on the quality of written communication in the question marked with an asterisk (\*).

SPECIMEN

This document consists of **3** printed pages and **1** blank page.

### 'Oil prices up as winter weather hits the US'

At the end of a year in which world oil prices have reached record highs, prices have once again surged past the \$60 a barrel mark. This time the price rise was a result of snowstorms battering the North-Eastern states of America, which in turn caused American households to use more oil in heating their homes.

Over the past two years, the rise in oil prices has been attributed to two main factors: 5

First, global economic expansion has led to a substantial rise in the demand for oil, especially from countries such as America and China.

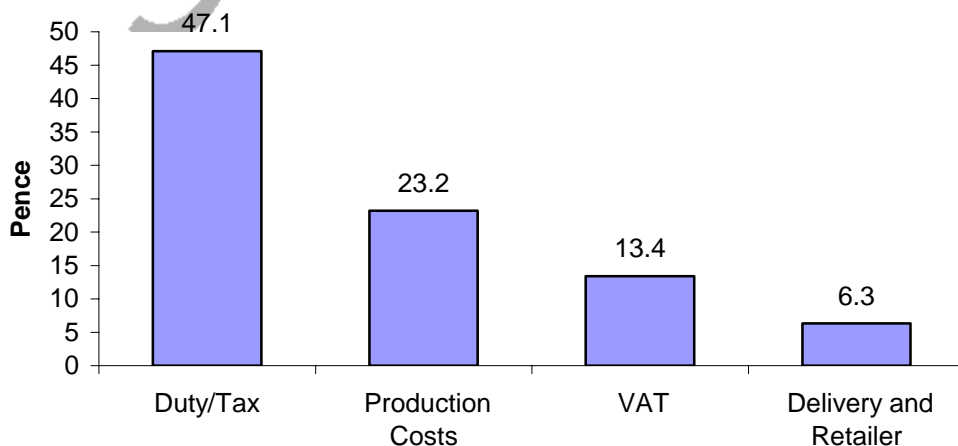
Second, violence and instability in countries such as Iraq has threatened oil production and has reduced the supply of oil on world markets. This factor has been worsened by natural disasters, such as Hurricane Katrina in September 2005, which 10 significantly reduced oil production in America.

The impact of higher oil prices is much debated. Economists are concerned that higher oil prices will raise prices throughout the economy and lower world economic growth. In contrast, environmentalists see the higher oil prices as actually doing 15 some good. They claim that by raising petrol prices motorists will be forced to make fewer journeys and therefore the resulting negative externalities will be reduced.

Yet this claim is much disputed – many economists would point out that the highly price inelastic demand for petrol means that this would not occur. Furthermore, as 20 Table 1 shows, the actual production costs of petrol (which includes the cost of crude oil itself) is only a small part of the overall price which is charged to motorists. In addition, the small number of firms that dominate the petrol market are extremely wary of raising their prices in case they lose sales to their large rivals.

What is certain is that the government will continue to watch world oil prices very carefully. As the fuel protests of September 2000 showed, voters don't take kindly to 25 having to pay more for their petrol.

**Table 1: How the price of a 90 pence litre of petrol breaks down (in pence per litre)**



Source: The AA Motoring Trust

Answer **all** questions.

- 1 (a) (i) Describe what is meant by the 'economic problem'. [2]
- (ii) Using the information provided, explain how the 'economic problem' can be applied to the case of oil. [2]
- (b) Lines 5 to 11 explain some of the reasons why world oil prices have increased in recent years.
- Using diagrams show how world oil prices have been affected by the following:
- (i) global economic expansion and economic growth in countries such as China (lines 7-8); [3]
- (ii) the impact of natural disasters such as Hurricane Katrina (lines 10-12). [3]
- (c) Using Fig. 1 and information from the passage, comment upon whether a rise in the cost of crude oil will always lead to companies increasing retail petrol prices for motorists. [6]
- (d) (i) Define the term 'consumer surplus'. [2]
- (ii) Using a diagram, explain what effect a rise in prices will have on consumer surplus. [4]
- (e) (i) Define the term 'price elasticity of demand'. [2]
- (ii) Line 19 of the article states that world petrol prices are "highly price inelastic". Explain what this means. [2]
- (iii) State and explain **two** factors that will determine the price elasticity of demand for a product. [6]
- (iv) Comment upon the relevance of price elasticity of demand estimates for businesses. [6]
- (f) Environmentalists argue that motorists cause negative externalities.
- (i) Define the term 'negative externality'. [2]
- (ii) State **two** possible negative externalities that may arise from increased car use. [2]
- (iii) Explain why negative externalities are an example of market failure. [4]
- (g)\* Discuss whether using indirect taxation is an effective solution to the market failure arising from negative externalities. [14]

**Paper Total: [60 Marks]**

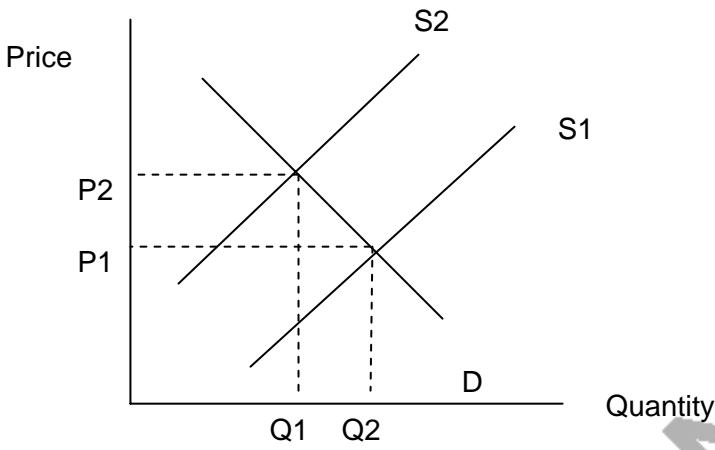
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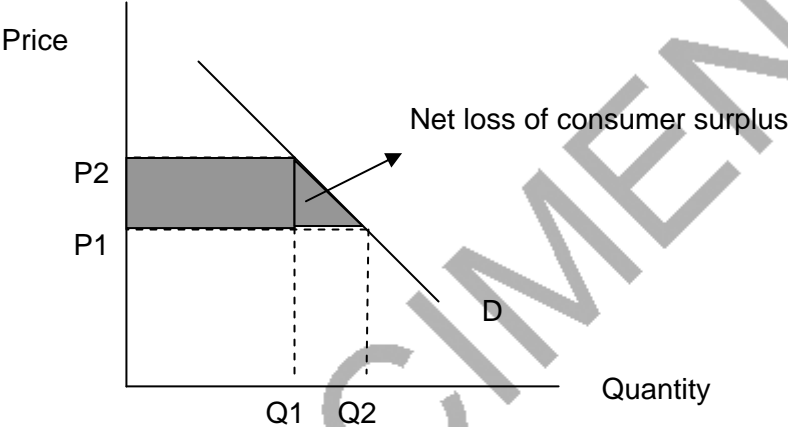
SPECIMEN

The maximum mark for this paper is **60**.

SPECIMEN

Question Number	Answer	Marks
1(a)(i)	<p><b>Describe what is meant by the ‘economic problem’.</b></p> <ul style="list-style-type: none"> <li>Identifying the economic problem as being scarcity.</li> <li>Recognising that this arises due to infinite wants and finite resources.</li> </ul>	[1] [1]
(a)(ii)	<p><b>Using the information provided explain how the ‘economic problem’ can be applied to the case of oil.</b></p> <ul style="list-style-type: none"> <li>Stating that oil is a scarce commodity.</li> <li>Relevant elaboration of this in terms of greater demand for oil (in other words, increased infinite wants) or in terms of a restriction of supply (finite resources) has made oil scarce and therefore increased prices.</li> </ul>	[1] [1]
(b)	<p><b>Lines 5-11 explain some of the reasons why world oil prices have increased in recent years.</b></p> <p><b>Using diagrams show how world oil prices have been affected by the following:</b></p> <p><b>(b)(i) global economic expansion and economic growth in countries such as China (lines 7-8);</b></p> <div data-bbox="383 1075 1101 1523" data-label="Figure"> </div>	
(i.e)	<ul style="list-style-type: none"> <li>Axes and original supply and demand</li> <li>Correct rightwards shift in demand.</li> <li>New equilibrium price and quantity.</li> </ul>	[1] [1] [1]

Question Number	Answer	Marks
(b)(ii)	<p><b>the impact of natural disasters such as Hurricane Katrina (lines 10-12).</b></p>  <ul style="list-style-type: none"> <li>• Axes and original supply and demand. [1]</li> <li>• Correct leftwards shift in supply [1]</li> <li>• New equilibrium price and quantity [1]</li> </ul>	
(c)	<p><b>Using Fig. 1 and information from the passage, comment upon whether a rise in the cost of crude oil will always lead to companies increasing retail petrol prices for motorists.</b></p> <p>Max 3 marks for basic analysis. This could include:</p> <ul style="list-style-type: none"> <li>• Higher oil prices will raise costs of production and therefore lead to a decrease in supply. This in turn will lead to a higher equilibrium price as firms attempt to pass higher costs of production on to their consumers. [3]</li> <li>• With petrol having inelastic demand, firms will have no problem in passing their rising costs on to consumers in the form of higher prices.</li> </ul> <p>Max 3 marks for evaluation/comment. This could include:</p> <ul style="list-style-type: none"> <li>• With costs of production only accounting for 23 pence out of the 90 pence cost of petrol (roughly a quarter), firms may not necessarily pass increased costs on to the consumer and may instead absorb these higher costs within their profit margins. [3]</li> <li>• The competitive state of the petrol market means that no one large producer is going to raise prices as they will lose sales to other outlets. As the article states- "<i>the small number of firms which dominate the petrol market are extremely wary of raising their prices in case they lose sales to their large rivals</i>".</li> </ul>	

Question Number	Answer	Marks
<p>(d)(i)</p>	<p><b>Define the term ‘consumer surplus’.</b>  Max 2 marks for <b>one</b> of the following:</p> <ul style="list-style-type: none"> <li>the difference between the price that consumers are willing to pay and the price that they actually pay. <b>[2]</b></li> <li>the surplus utility which consumers gain when buying a product. <b>[2]</b></li> <li>the area between the demand curve and the price line. <b>[1]</b></li> </ul>	<p><b>[2]</b></p>
<p>(d)(ii)</p>	<p><b>Using a diagram, explain what effect a rise in prices will have on consumer surplus.</b>  Max 4 marks for the diagram:</p>  <ul style="list-style-type: none"> <li>Demand curve. <b>[1]</b></li> <li>Old area of consumer surplus. <b>[1]</b></li> <li>New, smaller area of consumer surplus. <b>[1]</b></li> <li>(Alternatively, <b>[2]</b> marks for showing net loss in consumer surplus)</li> <li>For stating that as prices rise, the area of consumer surplus falls. <b>[1]</b></li> </ul>	<p><b>[1]</b> <b>[1]</b> <b>[1]</b> <b>[1]</b></p>
<p>(e)(i)</p>	<p><b>Define the term ‘price elasticity of demand’.</b>  Max 2 marks for <b>one</b> of the following:</p> <ul style="list-style-type: none"> <li>The responsiveness of demand to a change in price. <b>[2]</b></li> <li>Correct Formulae. <b>[2]</b></li> <li>A measure of how much demand will change following a change in price. <b>[1]</b></li> </ul>	<p><b>[2]</b></p>



Question Number	Answer	Marks
(f)	<b>Environmentalists argue that motorists cause negative externalities.</b>	
(f)(i)	<b>Define the term 'negative externality'.</b> Max 2 marks for: <ul style="list-style-type: none"> <li>• A cost imposed upon a third party [1] as a result of a production or consumption decision of someone else. [1]</li> <li>• Where social cost exceeds private cost. [2]</li> <li>• One mark for stating that it is an external cost or a bad effect imposed upon someone else.</li> </ul>	[2]
(f)(ii)	<b>State <u>two</u> possible negative externalities that may arise from increased car use.</b> Max 2 marks. One mark each for any relevant example such as: <ul style="list-style-type: none"> <li>• increased pollution;</li> <li>• congestion;</li> <li>• possible damage to the environment;</li> <li>• loss of life from accidents.</li> </ul>	[2]
(f)(iii)	<b>Explain why negative externalities are an example of market failure.</b> Max 2 marks for basic knowledge, including: <ul style="list-style-type: none"> <li>• Consumers/producers fail to take in to account the full social costs of their actions [1]; and therefore over-consume/overproduce [1].</li> </ul> Max 2 marks for application of theory, including: <ul style="list-style-type: none"> <li>• This represents a misallocation of resources [1] as too many scarce resources are devoted to the production of these goods and services [1]. This therefore represents allocative inefficiency [1].</li> </ul>	[2]

Question Number	Answer	Marks
(g)*	<p><b>Discuss whether or not taxation is an effective solution to the market failure arising from negative externalities.</b></p> <p>Candidates will be expected to evaluate the use of taxation as a solution to negative externalities. Relevant examples, such as 'green taxes' will be credited. Answers should recognise that taxation provides opportunities to charge individuals and firms for the external costs they impose on third parties and makes the 'polluter pay'. Taxation is seen as a market-based solution which forces individuals to internalise the external costs of their actions.</p> <p>Valid analysis will show the firm's supply curve shifting to the left which reduces over-production and allocative inefficiency associated with negative externalities. Answers which discuss relevant drawbacks to taxation will receive appropriate credit.</p> <p><b>Level 4 [9-14]</b> A discussion of the advantages and disadvantages of taxation as a solution to market failure.</p> <p>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 appropriate technical terminology. There may be a few, if any, errors of spelling, punctuation and grammar.</p> <p><b>Level 3 [5-8]</b> For analysis of how taxation can be used to correct the market failure caused by negative externalities.</p> <p>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.</p> <p><b>Level 2 [3-4]</b> For an application of knowledge and critical understanding of taxation as a solution to negative externalities.</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><b>Level 1 [1-2]</b> For basic knowledge and understanding of taxation only.</p> <p>Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar will be noticeable and intrusive. Writing may also lack legibility.</p>	<p>[14]</p>

Question Number	Answer	Marks
	<p><b>Possible Level 4 answers include:</b></p> <p>Taxation may be inflationary. If firms face inelastic demand for their products then they may simply pass on their increased costs to consumers who have to pay more for the products. Therefore the polluter does not pay.</p> <p>If taxation to solve negative externalities is to work then the tax must be equal to the external cost which exists. If not, this leads to the possibility of government failure and allocative inefficiency remaining.</p> <p>Taxation restricts economic growth and may therefore lead to unemployment.</p> <p><b>Possible Level 3 answers include analysis such as:</b></p> <p>By raising costs of production, firms are forced to reduce the supply of products to markets and therefore the problem of overproduction is solved.</p> <p>A relevant diagram showing the supply curve shifting to the left and higher price / lower output resulting.</p> <p><b>Possible Level 2 answers include:</b></p> <p>Explanation of how relevant examples of taxation, such as the tax on petrol, the tax on cigarettes and the tax on alcohol work by deterring consumption. The answer will lack any clear development of economic analysis, so is therefore limited to level 2 maximum.</p> <p><b>Possible Level 1 answers include:</b></p> <p>Simple reference to examples, lacking any clear development or suitable elaboration.</p>	
	<b>Paper Total</b>	<b>[60]</b>

**Assessment Objectives Grid (includes QWC)**

<b>Question</b>	<b>AO1</b>	<b>AO2</b>	<b>AO3</b>	<b>AO4</b>	<b>Total</b>
<b>(a)(i)</b>	2	0	0	0	<b>2</b>
<b>(a)(ii)</b>	0	2	0	0	<b>2</b>
<b>(b)(i),</b>	1	2	0	0	<b>3</b>
<b>(ii)</b>	1	2	0	0	<b>3</b>
<b>(c)</b>	0	0	3	3	<b>6</b>
<b>(d)(i)</b>	2	0	0	0	<b>2</b>
<b>(d)(ii)</b>	0	2	2	0	<b>4</b>
<b>(e)(i)</b>	2	0	0	0	<b>2</b>
<b>(e)(ii)</b>	2	0	0	0	<b>2</b>
<b>(e)(iii)</b>	2	4	0	0	<b>6</b>
<b>(e)(iv)</b>	0		3	3	<b>6</b>
<b>(f)(i)</b>	2	0	0	0	<b>2</b>
<b>(f)(ii)</b>	0	2	0	0	<b>2</b>
<b>(f)(iii)</b>	2	2	0	0	<b>4</b>
<b>(g)*</b>	2	2	4	6	<b>14</b>
<b>Totals</b>	<b>18</b>	<b>18</b>	<b>12</b>	<b>12</b>	<b>60</b>