Edexcel GCE

Economics
Advanced Subsidiary
Unit 1: Competitive Markets – How They Work and Why They Fail

Friday 16 January 2009 – Morning
Time: 1 hour 30 minutes

You do not need any other materials.

Instructions
• Use black ink or ball-point pen.
• Fill in the boxes at the top of this page with your name, centre number and candidate number.
• Answer all the questions in Section A and one question from Section B.
• Answer the questions in the spaces provided – there may be more space than you need.

Information
• The total mark for this paper is 80.
• The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.
• Questions labelled with an asterisk (*) are ones where the quality of your written communication will be assessed – you should take particular care with your spelling, punctuation and grammar, as well as the clarity of expression, on these questions.
• Candidates may use a calculator.

Advice
• Read each question carefully before you start to answer it.
• Keep an eye on the time.
• Check your answers if you have time at the end.

Turn over
SECTION A

Answer ALL questions in this section.

You are advised to spend 35 minutes on this section.
Use the data to support your answers where relevant.
You are encouraged to annotate and include diagrams where appropriate.

1 **Statement 1:** The London Congestion Charge on motor vehicles has reduced air pollution in the city.

**Statement 2:** The plan to introduce a higher congestion charge for motor vehicles with a large engine is unfair.

Which of the following best describes the two statements above?

A Statement 1 is positive and statement 2 is normative.

B Both statements are normative.

C Statement 1 is normative and statement 2 is positive.

D Both statements are positive.

(a) **Answer**

(b) **Explanation**

(Total for Question 1 = 4 marks)
2 One function of the price mechanism is to:
   A eliminate surpluses of a good by allowing the market price to rise.
   B encourage government intervention to reduce inequality in the distribution of
      income.
   C signal changes in consumer demand for a good to producers.
   D maintain price stability.

(a) Answer

(b) Explanation

(Total for Question 2 = 4 marks)
The diagram shows the market for ice cream. In the winter demand is represented by $D_1$ and supply by $S_1$, with the equilibrium price at $0P_1$. In the summer demand increases to $D_2$, raising price to $0P_2$ and causing a gain in producer surplus equal to the area:

A  $P_2XT$.
B  $P_1P_2XY$.
C  $P_2XQ_20$.
D  $P_1YZ$.

(a) **Answer**

(b) **Explanation**

(Total for Question 3 = 4 marks)
A mobile phone company has 2 million customers for a package of services. Each customer pays a monthly fee of £25. The company conducts market research and estimates that price elasticity of demand for this package is –2.

If the company reduces monthly fees by £5, the change in total revenue is likely to be:

A  + £6 million.
B  – £3 million.
C  – £6 million.
D  + £3 million.

(a) **Answer** (1)

(b) **Explanation** (3)

(Total for Question 2 = 4 marks)
Estimates of income elasticity of demand for selected soft drinks for the period 2001 – 2006:

<table>
<thead>
<tr>
<th>Soft drink</th>
<th>Income elasticity of demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fizzy drinks</td>
<td>-0.24</td>
</tr>
<tr>
<td>Fruit drinks</td>
<td>+0.16</td>
</tr>
<tr>
<td>Bottled water</td>
<td>+1.05</td>
</tr>
</tbody>
</table>

(Source: Nielsen/Britvic 2007)

From the data in the table it may be deduced that:

A. An increase in consumer income will lead to a more than proportionate increase in demand for fruit drinks.
B. A decrease in consumer income will cause a fall in the demand for all of the drinks.
C. An increase in consumer income will lead to a decrease in demand for fizzy drinks.
D. A decrease in consumer income will lead to a less than proportionate decrease in demand for bottled water.

(a) **Answer**

(b) **Explanation**

(Total for Question 5 = 4 marks)
6. Which of the following statements about public goods is true?

A. They are only provided by the price mechanism.
B. They involve no opportunity cost in their provision.
C. They are also known as ‘free goods’.
D. They are characterised by the free rider problem.

(a) Answer

(b) Explanation

(Total for Question 6 = 4 marks)
The diagram shows the labour market for unskilled fruit pickers in East Anglia. An increase in the national minimum wage (NMW) from $W_1$ to $W_2$ is likely to:

A. increase unemployment amongst fruit pickers.
B. cause an outward shift in the supply curve for fruit.
C. increase employment amongst fruit pickers.
D. increase the shortage of fruit pickers.

(a) **Answer**

(1)

(b) **Explanation**

(Total for Question 7 = 4 marks)
Dentists working in a market economy may undertake non-essential dental work on patients. A likely explanation for this is:

A  dental care is a public good
B  the existence of asymmetric information
C  significant external benefits result from dental care
D  there is a shortage of dentists

(a) **Answer**

(b) **Explanation**

(Total for Question 8 = 4 marks)

TOTAL FOR SECTION A = 32 MARKS
9 Tuition fees in higher education

Figure 1: World university rankings in academic research: top 10

<table>
<thead>
<tr>
<th>University</th>
<th>Country</th>
<th>World ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard</td>
<td>US</td>
<td>1</td>
</tr>
<tr>
<td>MIT</td>
<td>US</td>
<td>2</td>
</tr>
<tr>
<td>Cambridge</td>
<td>UK</td>
<td>3</td>
</tr>
<tr>
<td>Oxford</td>
<td>UK</td>
<td>4</td>
</tr>
<tr>
<td>Stanford</td>
<td>US</td>
<td>5</td>
</tr>
<tr>
<td>Berkeley, California</td>
<td>US</td>
<td>6</td>
</tr>
<tr>
<td>Yale</td>
<td>US</td>
<td>7</td>
</tr>
<tr>
<td>California IT</td>
<td>US</td>
<td>8</td>
</tr>
<tr>
<td>Princeton</td>
<td>US</td>
<td>9</td>
</tr>
<tr>
<td>Ecole Polytechnique</td>
<td>France</td>
<td>10</td>
</tr>
</tbody>
</table>

(Source: Times Higher Educational supplement, 4th February 2007)

Figure 2: Number of applications to higher education in UK 2003–2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>476,467</td>
</tr>
<tr>
<td>2004</td>
<td>486,028</td>
</tr>
<tr>
<td>2005</td>
<td>522,155</td>
</tr>
<tr>
<td>2006</td>
<td>506,304</td>
</tr>
<tr>
<td>2007</td>
<td>534,495</td>
</tr>
<tr>
<td>2008</td>
<td>540,108</td>
</tr>
</tbody>
</table>

(Source: www.UCAS/statistics)
Extract One  The case for increasing tuition fees in higher education

University can give you a great start in life. You are more likely to be employed. You will earn, on average, well over £160,000 more over a lifetime than non-graduates with ‘A’ Levels, and 96% of students agree it is a worthwhile experience. Increased government investment in higher education means many more students now attend university than ten years ago. The UK has two universities ranked in the world’s Top 10 for academic research and twenty-nine in the Top 200, according to the Times Higher Education survey. However, the US is in a league of its own, dominating research.

The expansion of higher education involves an opportunity cost to both the government and students. The UK government has increased its university tuition funding to £4,300 per student and also raised the student contribution from £1,175 to £3,000 per year. This means universities receive £7,300 in tuition fees for each student. But this figure is still well below the £11,500 average per student that American universities receive.

UK students do not have to finance tuition fees before or during the course since they can take out a loan at a rate of interest equal to the rate of inflation. Repayments only begin once they have finished studying, and are earning over £15,000 a year. For those from low-income families, there are grants worth up to £2,700 per year. Higher education can help reduce inequality.

Further increases in student contributions to tuition fees do more good than harm. It will encourage students to take their studies more seriously, and universities will be able to improve quality, innovation and choice in their education provision.

(Source: Adapted from ‘Route to a secure future’ by Bill Rammell, The Guardian, 4th September 2006 and ‘The greater good is not served by market forces’, Roger Brown, The Guardian, 11th December 2007.)

Extract Two  The case against increasing tuition fees in higher education

The increase in tuition fees from £1,175 in 2005 to £3,000 in 2006 caused a 3% drop in applications for higher education. The huge rise in fees discouraged some young people, especially from low income families. It also undermined the government target of achieving 50% of young people in higher education by 2010.

According to a survey of university vice-chancellors, the student contribution to tuition fees will have to rise to £6,000 a year or more by 2010. Annual tuition fees are capped at £3,000 until then. The cost to the government of subsidising student loans and writing off unpaid debts has risen to nearly £1 billion a year. A highly qualified graduate workforce attracts more investment and generates more production and tax revenue for the economy. In this way, graduates already pay for their higher education.

(Source: Adapted from ‘Fees trigger drop in university applications’ by Donald Macleod, The Guardian, 10th February 2006)
If you answer Question 9 put a cross in this box ☐.

(a) Using examples, explain what is meant by ‘the expansion of higher education involves an opportunity cost to both the government and students.’ (Extract 1, lines 8 and 9).

(b) Examine the likely impact on the production possibility frontier for the economy of ‘increased government investment in higher education’ (Extract 1, lines 3 and 4). Illustrate your answer with an appropriate diagram.

(c) Apart from a shift in the production possibility frontier, examine two likely external benefits of higher education. Illustrate your answer with an appropriate diagram.

(d) (i) With reference to the first paragraph of Extract 2, calculate the percentage change in tuition fees between 2005 and 2006.

(ii) With reference to Figure 2 and Extract 2, evaluate the likely impact of an increase in tuition fees on applications to higher education.

(e) To what extent will ‘further increases in student contributions to tuition fees do more good than harm’ (Extract 1, line 18) to students and universities?
(a) Using examples, explain what is meant by 'the expansion of higher education involves an opportunity cost to both the government and students'. (Extract 1, lines 8 and 9).
(b) Examine the likely impact on the production possibility frontier for the economy of 'increased government investment in higher education' (Extract 1, lines 3 and 4). Illustrate your answer with an appropriate diagram.

(8)
*(c) Apart from a shift in the production possibility frontier, examine **two** likely external benefits of higher education. Illustrate your answer with an appropriate diagram.*
(d) (i) With reference to the first paragraph of Extract 2, calculate the percentage change in tuition fees between 2005 and 2006.

(2)
(ii) With reference to Figure 2 and Extract 2, evaluate the likely impact of an increase in tuition fees on applications to higher education.

(7)
*(e) To what extent will 'further increases in student contributions to tuition fees do more good than harm' (Extract 1, line 18) to students and universities?

(Total for Question 9 = 48 marks)
10 The UK Tobacco Market

Figure 1: UK Cigarette Consumption (2000 – 2006)

UK Cigarette Consumption

(Source: www.the-tma.org.uk)

Figure 2: Cigarette Tax in selected EU countries (2000 – 2006)

Cigarette Tax in Selected EU Countries
2007 (Tax on main brand of 20 cigarettes)

(Source: www.the-tma.org.uk)
Extract One  Tobacco smoking in decline

The government can be proud of its achievements in implementing strong tobacco control measures over recent years. The ban on tobacco advertising in 2003 and effective public health campaigns have helped smokers to give up. The ban on smoking in pubs, clubs and restaurants in July 2007 means the decline is set to continue.

However, smoking is hardly declining among socially disadvantaged groups. Currently, the government is unlikely to reduce health inequalities and in fact the gap is set to widen.

It is vitally important that the government increases measures to help poorer smokers to quit by widening access to ‘stop smoking’ treatments and maintaining funding of its mass media educational campaigns. The use of nicotine patches and gum, which are intended to reduce dependency on cigarettes, has helped many smokers give up. The government should also renew its efforts to reduce the illegal practice of tobacco smuggling which has encouraged smoking.

(Source: Adapted from Deborah Arnott, Director of the health campaigning charity ASH)

Extract Two  Tobacco taxes too high

The UK has a higher tax rate on cigarettes than any other European Union country and according to figures from Her Majesty’s Revenue and Customs, as much as £25 billion in revenue has been lost since 2000 due to smuggling and cross-border shopping. The Tobacco Manufacturer’s Association estimate that UK tax was not paid on 27 per cent of cigarettes consumed in 2006.

Despite the introduction of a smoking ban in pubs, clubs and restaurants in England in July 2007 more than twenty-five per cent of the adult population continue to smoke. Many pubs, clubs and restaurants have invested in comfortable outdoor smoking areas in order to keep as many customers as possible.

The minimum legal age of sale for tobacco was increased from 16 to 18 years of age in October 2007 but this seems to have had little impact on reducing the numbers of young people who smoke, according to a Trading Standards survey in North West England. It found that many young people are still able to obtain tobacco from the informal economy, for example, street markets or neighbours.

(Source: The Tobacco Manufacturer’s Association)
(a) (i) With reference to Figure 1, calculate the percentage change in cigarette consumption in the UK between 2000 and 2006. (2)

(ii) Analyse two likely effects on cigarette retailers of the change in cigarette consumption. (6)

(iii) Using the concept of cross-elasticity of demand, assess the likely relationship between the demand for cigarettes and the price of nicotine replacement products. (10)

* (b) Examine the effectiveness of indirect taxation as a means of reducing cigarette and tobacco consumption. Use a demand and supply diagram in your answer. (12)

* (c) Examine the economic benefits of a reduction in cigarette and tobacco consumption. (12)

(d) To what extent might asymmetric information exist in the tobacco market? (6)
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(ii) Analyse two likely effects on cigarette retailers of the change in cigarette consumption.
(iii) Using the concept of cross-elasticity of demand, assess the likely relationship between the demand for cigarettes and the price of nicotine replacement products.

(10)
*(b) Examine the effectiveness of indirect taxation as a means of reducing cigarette and tobacco consumption. Use a demand and supply diagram in your answer. *(12)*
*(c) Examine the economic benefits of a reduction in cigarette and tobacco consumption.*

(12)
(d) To what extent might asymmetric information exist in the tobacco market?