

## **Subject CT7 — Business Economics**

April 2010 Examinations

### **EXAMINERS' REPORT**

#### **Introduction**

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

R D Muckart  
Chairman of the Board of Examiners

July 2010

#### **Comments**

These are given in italics at the end of each question.

<b>1</b>	D
<b>2</b>	A
<b>3</b>	A
<b>4</b>	B
<b>5</b>	D
<b>6</b>	D
<b>7</b>	A
<b>8</b>	D
<b>9</b>	C
<b>10</b>	A
<b>11</b>	D
<b>12</b>	C
<b>13</b>	B
<b>14</b>	C
<b>15</b>	C
<b>16</b>	B
<b>17</b>	B
<b>18</b>	C
<b>19</b>	D
<b>20</b>	B
<b>21</b>	A
<b>22</b>	D
<b>23</b>	C
<b>24</b>	B
<b>25</b>	B
<b>26</b>	D

*The multiple choice questions were generally well answered. Question 1, 8, 11 and 25 appeared to cause the most problems.*

**27** Three of the following:

- (1) An increase in profitability of an alternative good is likely to result in suppliers switching to the alternative and reducing the supply of the product.

For example, postal services and the use of internet.

- (2) Lower profitability of a product jointly produced is likely to result in a fall in the supply of the first product

For example, a reduction in production of petrol would mean production of Diesel and paraffin would also fall.

- (3) Nature, “random shocks” and other unpredicted events.

For example, adverse weather, wars, industrial disputes and floods could disrupt supply.

- (4) Expectation of future price changes could lead to stock piling and reduce the amount supplied in the market.

For example, oil supply is stockpiled in the hope of a rise in its price.

- (5) An increase in input costs.

For example an increase in wages, the cost of raw material and inputs such as electricity costs.

*This was a straightforward knowledge recall question based on a mainstream part of the syllabus. A number of candidates failed to gain any marks for this question. It should be noted that an upward shift in the supply curve for a product is consistent with a decrease in supply. Many candidates described factors which would increase supply and also gave inappropriate examples.*

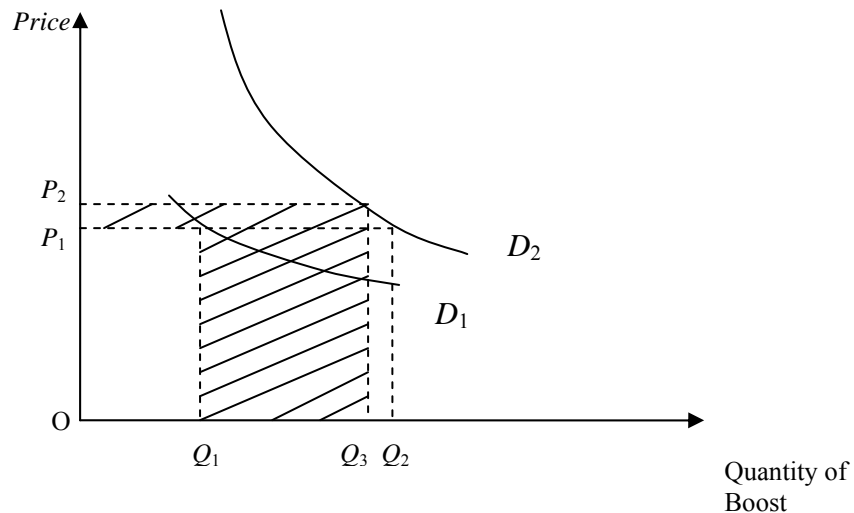
- 28** (i) (a) New demand =  $Q_2 = 400$
- (b) Change in revenue =  $\Delta R = R_2 - R_1 = Q_2 P_2 - 1200 = -400$
- $P_2 \times Q_2 = 800, P_2 = 800/400 = 2$
- Price elasticity of demand for X =  $\% \Delta Q_X / \% \Delta P_X$
- $= (100/300) / (-2/4) = 2/3$
- Alternatively  $= (100/350) / (-2/3) = 3/7$
- (ii) A downward movement along a linear demand curve would mean a fall in the price elasticity of demand.
- (iii) Cross-price elasticity of demand for Good Y =  $\% \Delta Q_Y / \% \Delta P_X$
- $\% \Delta Q_Y = (-1.5) \times (-2/4) = 3/4$  an increase in demand for Y of 75%.

*This question discriminated quite effectively. Weaker responses were generally able to calculate both the price and price elasticity of demand correctly but they were not altogether sure whether elasticity would change with a downward movement along the demand curve and a significant number failed to accurately calculate the proportionate change in the demand for good Y.*

- 29** (i) The main aim of advertising is to sell more of Boost. This is achieved by

Changing the demand curve for the product in two ways:

- (a) Shifting the product's demand curve to the right.
- (b) Making the demand more price inelastic (i.e. less elastic).



The diagram shows the original demand curve  $D_1$  when  $Q_1$  units are sold with price at  $P_1$ .  $D_2$  shows the demand after the advertising campaign. It shows that a higher quantity  $Q_2$  could be sold at the original price  $P_1$ . If advertising also succeeds in making the demand less elastic, the firm can also raise its price to  $P_2$  and still sell more at  $Q_3$ . The total gain in revenue is the shaded area.

- (ii) The firm can achieve the shift in the demand curve if the advertising brings Boost to more people's attention and if it increases people's desire for the product by emphasising its health boosting effects and diverting more consumers from general soft drinks to the health drink.

If advertising creates greater brand loyalty by sending the message that Boost is a superior health drink with health promoting properties not found in other health drinks, the demand will become less elastic. This will allow the firm to raise its price above that of its rivals without a significant fall in sales. There will only be a small substitution effect of this price rise as the consumers have been led to believe that competitors' brands are inferior and that there are no close substitutes.

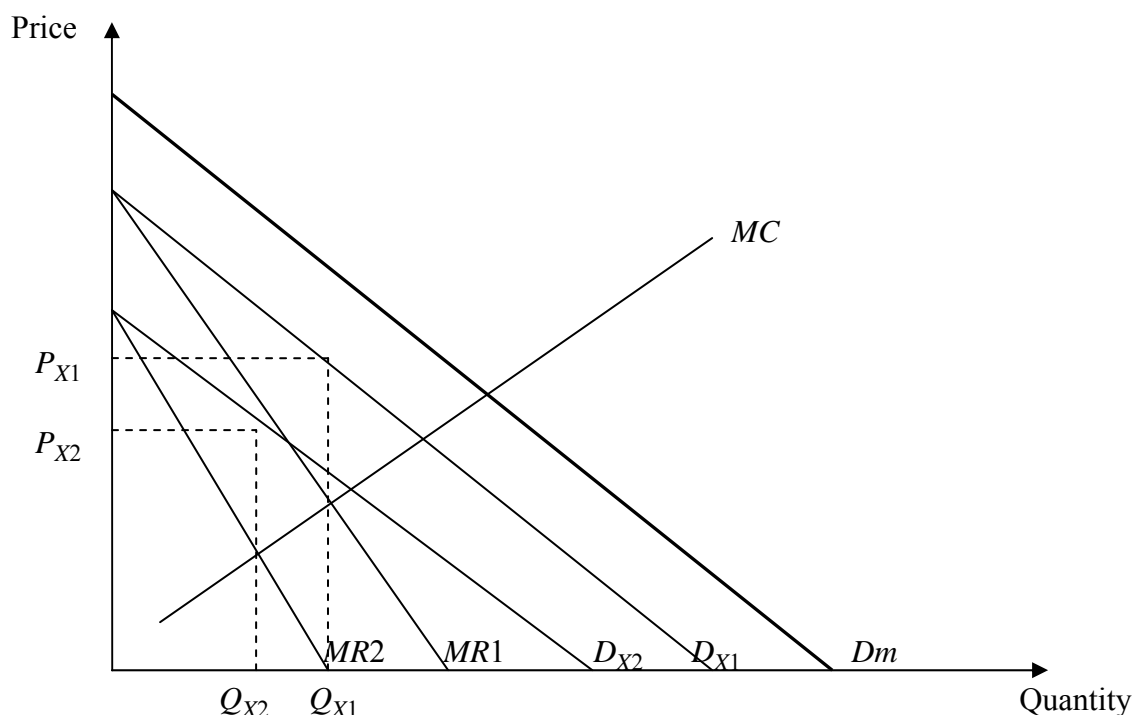
The more successful the advertising campaign, the more it will shift the demand curve to the right and the more it will reduce the price elasticity of demand.

*This question was generally dealt with very effectively and this was demonstrated by some very detailed, accurate responses which frequently gained full marks.*

- 30** (i) The four Ps: Product, Price, Place (distribution) and Promotion.
- (ii) A high quality luxury product is likely to have a price inelastic demand and the price would tend to be high reflecting the high quality. Also increasing points of distribution would have a small effect on increasing demand. Improving the quality of the product and promotion in order to increase brand loyalty is likely to have a more significant effect.
- 31** (i) Two of the following for the economies of scale should be briefly described:
- Specialisation and division of labour
  - Indivisibilities
  - The “container principle”
  - Greater efficiency of large machines
  - By-products
  - Multistage production
  - Organisational
  - Spreading overheads
  - Financial economies
  - Economies of scope
- (ii) Two of the following for the diseconomies of scale should be described:
- Management problems
  - Poor labour motivation
  - Poor industrial relations
  - Greater chance of disruption from hold ups, due to the complexity of mass production.

*Generally very well answered with many candidates gaining full marks.*

**32** Non-collusive oligopoly. Cournot model



- (i) Total demand is  $D_M$ . Firm X perceives that his own demand is  $Q_{X1}$  less than the total market demand. Its perceived demand curve would be  $D_{X1}$ .
- (ii) The profit maximising output  $Q_{X1}$  is found where the marginal revenue curve intersects the marginal cost curve. The price will be  $P_{X1}$ .
- (iii) If Company X believes that Y will produce  $2Q_Y$ , its demand will shift to the left to  $D_{X2}$  and its new marginal revenue  $MR2$ , output will be  $Q_{X2}$  with profit maximising price at  $P_{X2}$ . Both output and price would be lower.
- (iv) The new prices will be  $P_{X2}$ . Industry profits will be higher in this case.

*This question provided the opportunity to gain seven marks for one clearly labelled diagram plus an understanding of the Cournot model of duopoly. A large number of candidates were able to provide clear, accurately labelled diagrams to illustrate this model and gain full marks. Some failed to recognise the nature of this model and produced kinked demand diagrams instead resulting in lost marks.*

- 33** (i) GDP at market prices = Wages and salaries + Operating profits + Mixed incomes + Taxes on products – Subsidies on products
- $$= 350 + 150 + 38 + 71 - 3 = 606$$
- (ii) GNY at market prices = GDP at market prices + Net income from abroad
- $$= 606 + 15 = 621$$
- (iii) NNY at market prices = GNY at market prices – depreciation
- $$= 621 - 65 = 556$$

*In part (i) many simply could not calculate GDP at market prices. The most common error related to the decision to subtract taxes and add subsidies i.e. calculating GDP at factor cost rather than at market prices as required. Another frequent error was the failure to include the “Mixed Incomes” element in the overall calculation. Parts (ii) and (iii) were generally well answered.*

- 34** (i)
- |   |        |   |
|---|--------|---|
|   |        | Opportunity cost                          |
| A | Good X | 6 units of Y for 1 unit of X              |
|   | Good Y | 1/6 units of X for 1 unit of Y            |
| B | Good X | 10 units of Good Y for 1 unit of Good X   |
|   | Good Y | 1/10 units of Good X for 1 unit of Good Y |
- (ii) Country A has comparative advantage in production of X so it will export Good X. Country B will export Good Y.
- (iii) Country A will sell X if price of X is higher than 6Y. While Country B will buy X if the price of X is lower than 10Y. So the exchange ratio would be between 6Y and 10Y for one unit of X.

*Weaker candidates generally managed to answer parts (i) and (ii) but often failed to identify the range of exchange rate ratios of Good Y and Good X and therefore failed to gain full marks.*



- 35** (i) Withdrawals: Net savings, net taxes, expenditure on imports.  
Injections: Investment, Government expenditure, export expenditure.
- (ii) Change in aggregate expenditure =  $100 + 50 = 150$   
Multiplier =  $1/(1 - mpc) = 1/(1 - 2/3) = 3$   
So change in GDP = 450

*Part (i) required a simple recall and knowledge of what is a frequently tested mainstream part of economics. This was reflected by the very high proportion of candidates who gained full marks. Part (ii) was a little more demanding and the better candidates were able to provide accurate calculations of both the multiplier and the subsequent change in the equilibrium level of income.*

- 36** (i) The discussion should include the following: The equation of exchange and the Quantity of Theory, assumptions about V and Y, monetary policy and changes in the money supply, control of money supply in the short- and long-runs, issues with monetary measures.
- (ii) The link between the money supply and inflation is not so clear cut in the short run. There is also the issue of which money supply needs to be controlled, the broad money supply or the narrow money supply. Another problem is the demand for money may be volatile in the short run so increases/decreases in money demand affect the relationship between the money supply and inflation. Then there is the question of whether the monetary authorities can really control the broad money supply.

*This question provided the opportunity for candidates to introduce some analysis into their response and also demonstrate an ability to develop a reasoned argument based upon an understanding of basic economic principles. Good answers referred to the Quantity Theory of money and established the link between inflation and control of the money supply. Marks were also gained for showing some understanding of how the Keynesian monetary transmissions mechanism might be used to consider the possible links between the money supply and inflation. Good candidates were able to identify a whole range of factors which might be considered to be problematic regarding the use of the money supply to control inflation.*

- 37** (i) The discussion should include the law of comparative advantage, the benefits from specialization and dynamic gains from trade such as exploitation of economies of scale, greater competition resulting in decreasing costs, greater product variety, access to new technology, increased competition spurring innovation, trade as engine of growth, non economic advantages and limitations to gains from specialisation and trade.
- (ii) Some discussion of different types of trade restriction, economic and non-economic arguments for restricting such as infant industries, strategic trade theory, to prevent “unfair competition” such as dumping and predatory pricing. Problems with protection focus on rise in price facing the consumer and loss of many of the benefits from free trade listed in part (i) and of course the risk of a trade war if the other countries retaliate.

*Many candidates scored very high marks for both parts of this question. Good answers raised important issues and proceeded to develop these further with supporting examples. Weaker candidates tended to simply list why countries might gain from free trade i.e. points were stated rather than explained, therefore marks were lost. Part (ii) did provide some opportunity to discuss issues and it was pleasing to note the significant number of candidates who were able to demonstrate an in-depth knowledge of arguments for and against trade restrictions.*

## **END OF EXAMINERS' REPORT**