

# **EXAMINATION**

April 2006

## **Subject CT7 — Economics Core Technical**

### **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.

M Flaherty  
Chairman of the Board of Examiners

June 2006

#### **Comments**

Individual comments are shown after each question.

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

*Comments on questions 1–26: The multiple-choice questions were generally well answered.*

- 27** (a) Finding the maximum premium ( $P$ ) which an individual will be prepared to pay in order to insure himself against a random loss ( $X$ ) is given by the equation

$$E(U(a - X)) = U(a - P)$$

where  $a$  is the initial level of wealth.

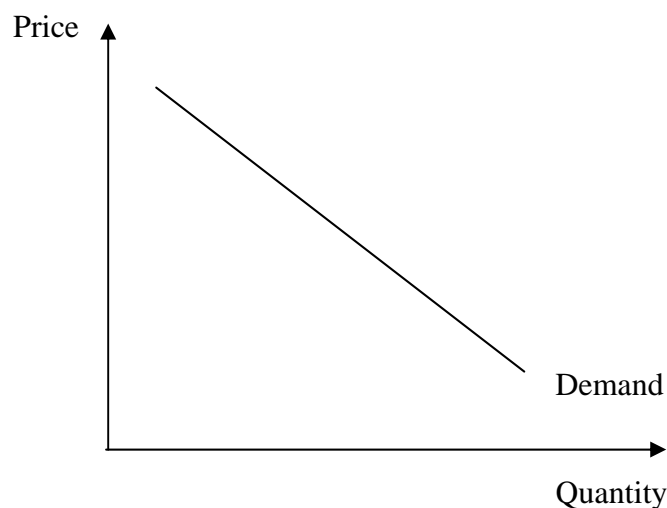
- (b) Finding the minimum premium ( $Q$ ) which an insurer should be prepared to charge for insurance against a risk with potential loss ( $Y$ ) is given by the equation

$$E(U(a + Q - Y)) = U(a)$$

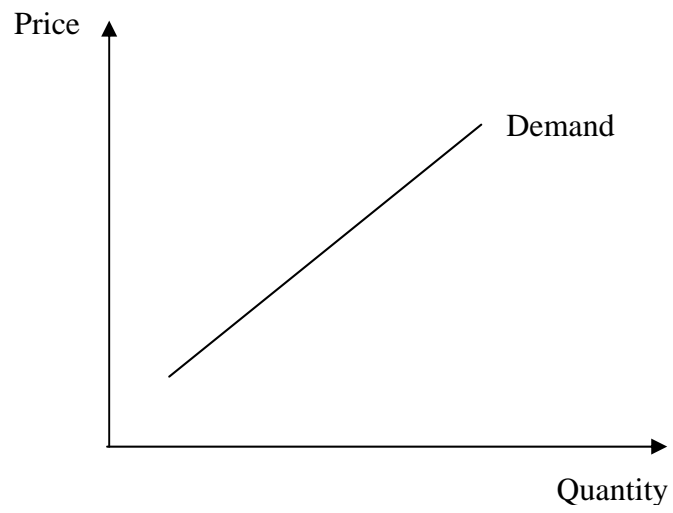
where  $a$  is the initial level of wealth.

**Comments on question 27:** Generally well answered. However, some students gave a poor explanation and correct equation/formula, or a good explanation but the incorrect equation/formula.

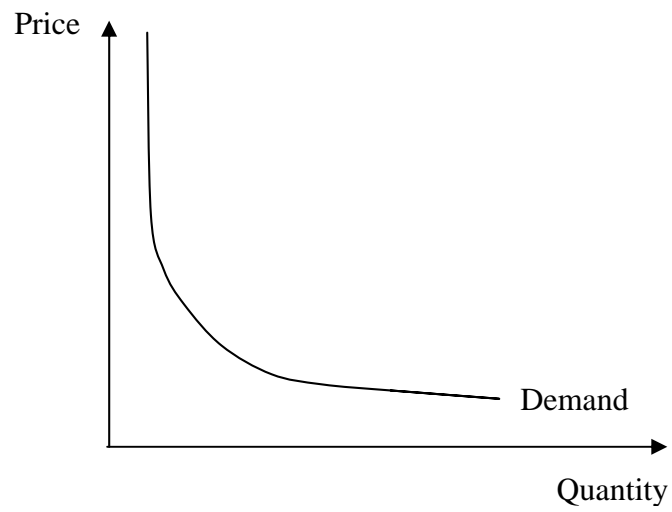
- 28** (a)



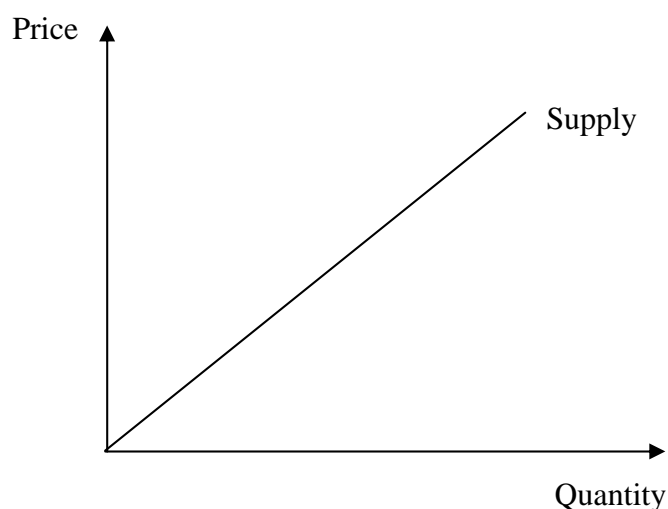
(b)



(c)



(d)



**Comments on question 28:**

*Curves not labelled or incorrectly labelled appeared to be a common error.*

*Part(c) was often incorrectly drawn e.g. as a downward sloping line with  $-1$  gradient.*

- 29**
- (i) C
  - (ii) BC
  - (iii) E
  - (iv) A

**Comments on question 29:** *Parts (i) and (ii) caused the most problems.*

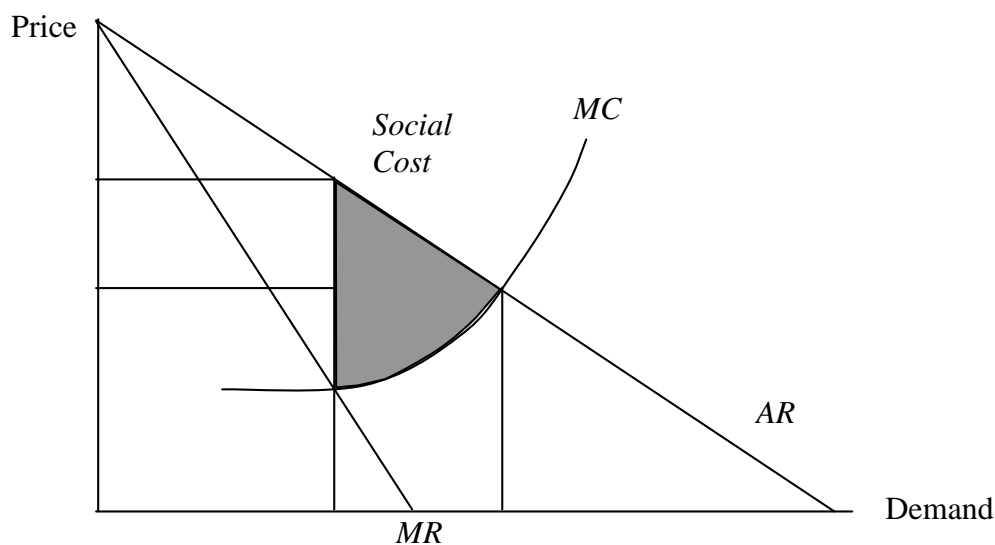
- 30**
- (i)

<i>Output</i>	<i>Total Cost</i>	<i>Total Fixed Cost</i>	<i>Marginal Cost</i>	<i>Average Total Cost</i>
0	10	10		
1	18	10	8	18
2	30	10	12	15
3	47	10	17	15.67
4	67	10	20	16.75
5	92	10	25	18.4

- (ii) 2 units of output

**Comments on question 30:** *Well answered.*

**31**



**Comments on question 31:** Diagram normally well drawn, occasionally the written explanation was poor.

**32**

- (i) The equilibrium level of national income is given by:

$$Y = C + I + G + X - Z$$

$$Y = 0.6(1 - t)Y + 200 + 400 + 300 - 0.3Y$$

$$Y = 0.6(1 - 0.5)Y + 900 - 0.3Y$$

$$Y = 900$$

- (ii)  $C = 0.6(1 - 0.5)Y = 270$

- (iii) The fiscal balance is given by  $T - G$ .

$$T = 450$$

$$G = 400$$

Therefore a fiscal surplus of £50 million.

- (iv) The current account is given by

$$X - Z = 300 - 0.3Y$$

$$= 300 - 0.3 \times 900$$

$$= 30$$

Hence a trade surplus of £30 million.

**Comments on question 32:**

*This question was poorly answered. Imports and consumption incorrectly calculated. Students generally used income rather than disposable income and therefore carried the problem forward to the rest of the question. The question was unclear on this point and was the source of some confusion.*

*The remaining calculations were generally completed correctly albeit using an incorrect value of Y. Credit, however, was given for this working.*

- 33**
- (i) Economies of scale (increasing returns to scale) can be defined as a situation where long run average costs are falling as output is increased.
  - (ii) Factors which are put forward as reasons include:
    - Indivisibilities
    - Specialisation
    - Physical economies
    - Finance
    - Bulk purchases
    - By products
    - Principle of multiples

**Comments on question 33:** *Well answered.*

- 34**
- (i)  $100 - 150 + 40 - 50 + 20 - 40 = \text{Deficit} = -£80 \text{ million}$
  - (ii) Balancing Item      +£20 million
  - (iii) Current Account  
Capital Account  
Official Financing

**Comments on question 34:** *Some students failed to list all three parts of the balance of payments accounts correctly.*

- 35**
- (i) Classical unemployment is caused by wages being inflexible downwards. Wages held above the equilibrium labour market clearing level.
  - (ii) Demand deficient unemployment is caused by fluctuations in national output due to the business cycle, sometimes called cyclical unemployment.
  - (iii) Voluntary unemployment is defined as a situation where a worker registered as part of the labour force is not prepared to accept immediately a job at the going wage rate for their skills.
  - (iv) Involuntary unemployment is defined as a situation where a worker registered as part of the labour force is prepared to accept immediately a job at the going wage rate for their skills.

*Comments on question 35: Answers were often poorly expressed and some students appeared to attempt to cover as many options as possible. Some students were confused or unclear about classical and demand deficient unemployment.*

**36**  $Y \equiv C + I + G + X - Z - T_e$

and

$$S \equiv Y_d - C$$

$$\equiv (Y + B - T_d) - C$$

Rearranging this equation gives

$$Y \equiv C + S - B + T_d$$

Equating the right hand side of the 2 expressions for  $Y$

$$C + I + G + X - Z - T_e \equiv C + S - B + T_d$$

Therefore

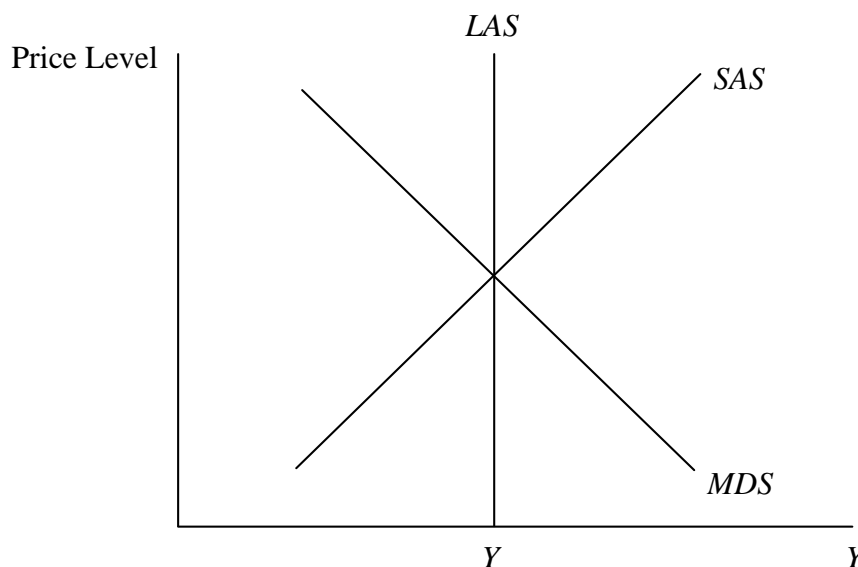
$$I + G + B + X \equiv S + T_e + T_d + Z$$

Injectors  $\equiv$  Leakages

*Comments on question 36: Poorly answered — often unclear working. Net taxes were sometimes not accounted for, or explained.*



**37** (i) Aggregate Demand and Supply Model



- (ii) A positive supply shock increases the output that can be produced for given input quantities of capital and labour and  $SAS_1$  shifts right.

- **Very short run, prices constant and SAS is horizontal.**

Between A and B,  $P_1$ ,  $Y_1$  to  $P_1$ ,  $Y_2$  and  $SAS_2 > AD_1$ . If prices constant  $Y_1$  to  $Y_2$ .

- **Short run, prices start to adjust.**

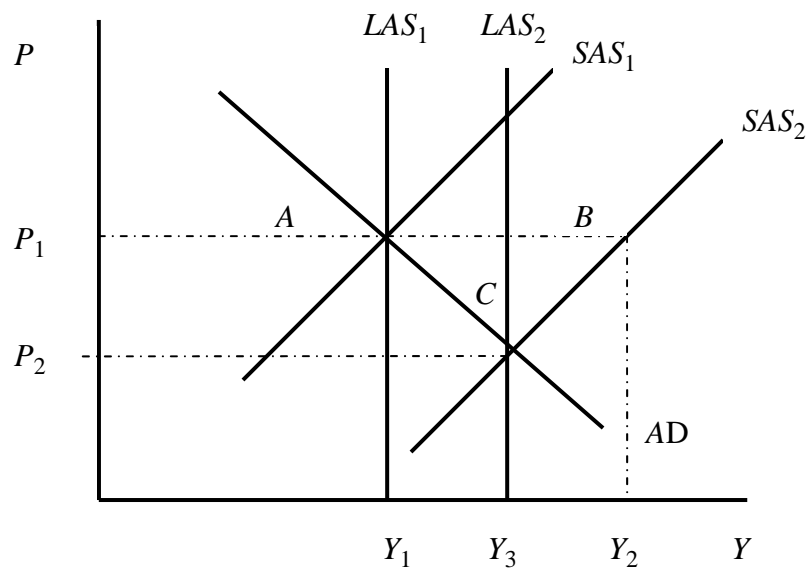
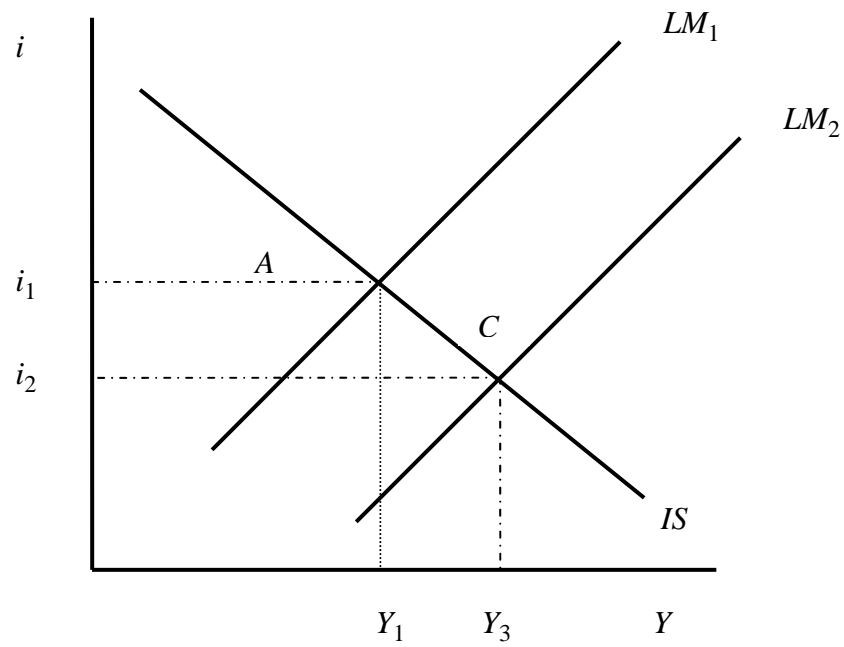
The increased productivity causes MC to fall. Prices start to fall and with lower prices MR falls and quantity supplied by firms will decrease. Move along  $SAS_2$  towards C.

If nominal  $MS$  is held constant real money supply increases,  $LM_1 (MS/P_1)$  shifts right to  $LM_2 (MS/P_2)$ . For a given level of aggregate demand and therefore transactionary and precautionary demand for money, interest rates will fall from  $i_1$  to  $i_2$ . This fall in interest rates will generate an increase in aggregate demand move from A towards C.

SR equilibrium at  $Y_3$   $P_2$ , increased  $AD$  and lower prices,  $SAS_2$  at point C.

- **Long Run**

This permanent change will increase the output capacity of the economy. Therefore,  $LAS_1$  shifts right to  $LAS_2$ . The position of  $LAS_2$  will depend on the monetary and fiscal policy of government and the strength of the technological breakthrough.



**Comments on question 37:**

*A wide variation in the quality of answers.*

*Part (i) — This was strictly theoretical. Reasonable diagrams but the explanation often poor.*

*Part (ii) — Many students did not refer to interest rates and therefore failed to see the connection between IS/LM and AD/AS Model. Hardly any students mentioned the initial short run (SR) period when prices are fixed i.e. very short run, or any other acceptable terminology. The short and long run were often discussed in a superficial manner.*

*A large number of students wrote more for part (i), worth 5 marks, than for part (ii), worth 15 marks.*

**END OF EXAMINERS' REPORT**