

EXAMINATIONS

September 2000

Subject 107 — Economics

EXAMINERS' REPORT

Overall comments

One comment for the next set of exams is that it is a waste of time and paper to have the multiple choice questions answered on separate pages. The instructions for the next exams will clearly state that for multiple choice, a new page should not be used for each question.

There was considerable evidence of poor exam technique, for example:

- *appearing to fail to consider all the options in multiple choice questions*
- *not giving sufficient weight to high mark questions*
- *disregarding the wording of questions eg '2 decimal places', 'discuss'.*

Handwriting ranged from the clear to the terrible.

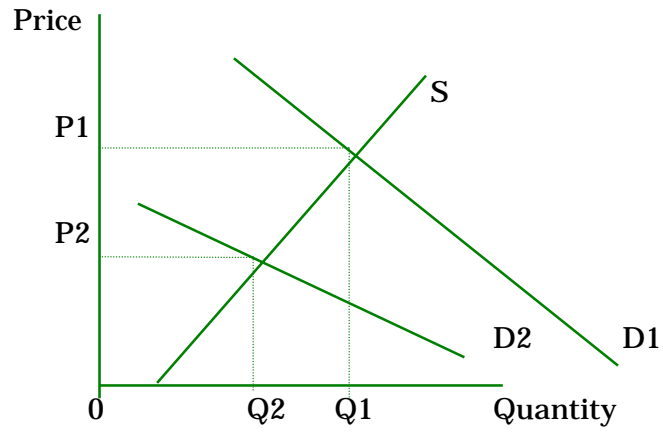
Diagrams, in particular, were very poor in many cases. Many diagrams were drawn freehand (without a ruler) and therefore lacked clarity. Many diagrams were also too small for the answers to be clear. Candidates should use rulers, and diagrams should be of a sufficient size to show movements clearly.

Comments on individual questions appear in italics at the end of each corresponding solution.

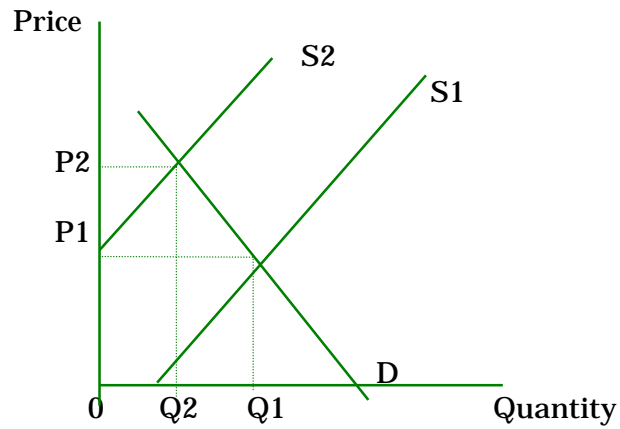
1	C
2	C
3	C
4	C
5	D
6	B
7	A
8	C
9	D
10	B
11	B
12	C
13	D
14	A
15	C
16	C
17	C
18	A
19	A
20	D
21	D
22	B
23	B
24	A
25	B
26	C

Q1-Q26 *Generally, the multiple choice questions were well answered. The questions which caused the main problems were numbers 7, 9, 11, 12 and 21. Of these, 11 was answered incorrectly most often.*

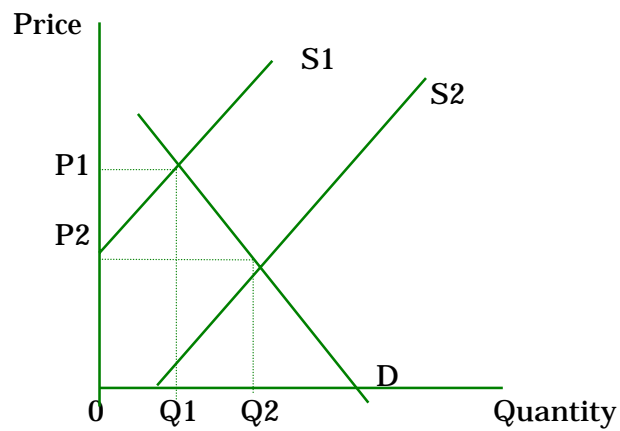
27 (i)



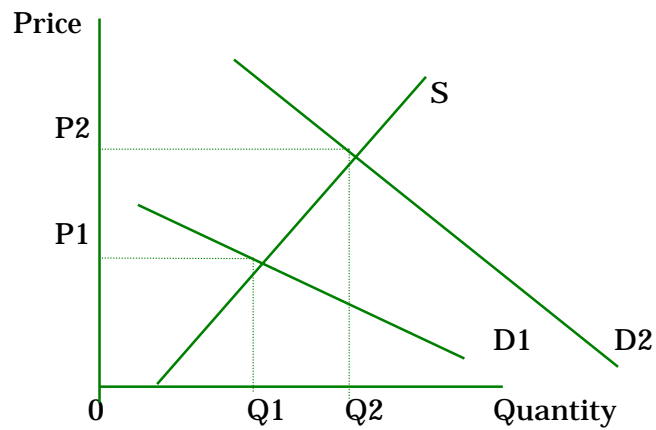
(ii)



(iii)



(iv)



Q27 Well answered by most.

- 28** (i) Price Elasticity of Demand = $\frac{\% \text{ change in } Q_d(X)}{\% \text{ change in } P(X)} = -0.89$
- (ii) Cross Price Elasticity of Demand = $\frac{\% \text{ change in } Q_d(X)}{\% \text{ change in } P(Y)} = 1.87$
- (iii) Income Elasticity of Demand = $\frac{\% \text{ change in } Q_d(X)}{\% \text{ change in income}} = 0.78$

Alternative answers using arc elasticity measurement:

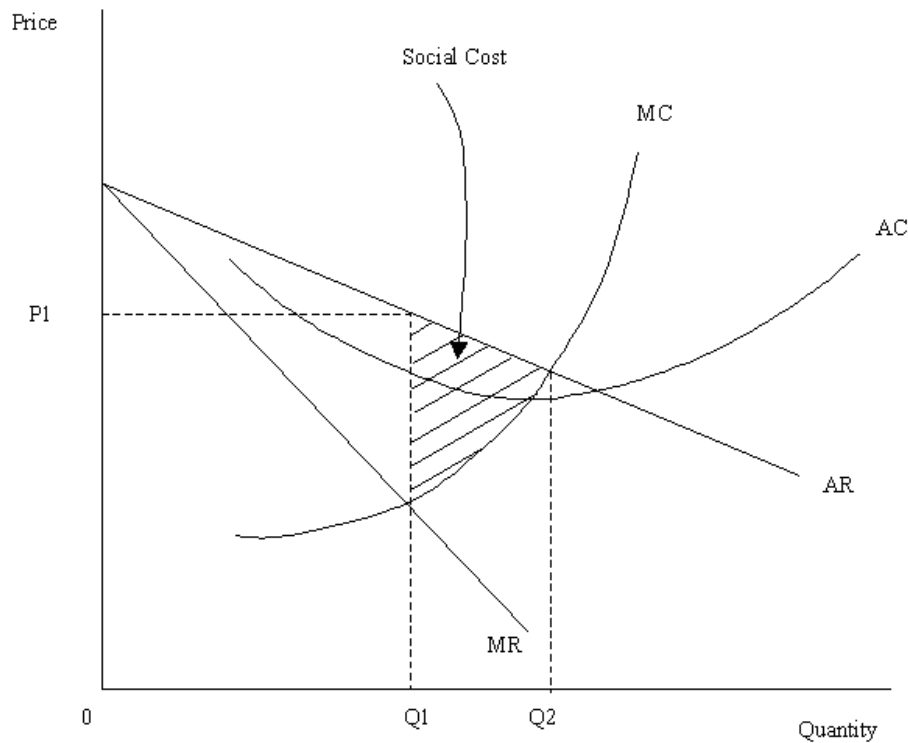
- (i) -0.73
(ii) 1.94
(iii) 0.78

Q28 Well answered by most. Marks were given for part (i) where the minus sign was missed out, as it explicitly states in the core reading that some economists do miss out the minus sign. The most common error was to base the answer on the **change** in the quantity or price rather than the **percentage change**.

- 29** (i) An inferior good is a good for which the income elasticity of demand is negative. So the quantity demanded fall as income increases.
- (ii) A Giffen good is a good for which the price elasticity of demand is positive. So, as its price rises the quantity demanded increases.
- (iii) A normal good is a good for which the income elasticity of demand is positive. So the quantity demanded increases as income increases.

Q29 Very well answered.

30



Q30 Reasonably well answered by most. The most common error was not knowing the area representing the social cost of monopoly.

- 31**
- (i) Adverse selection describes the fact that people who know that they are particularly bad risks are more inclined to take out insurance than those who know that they are good risks.
 - (ii) Moral hazard describes the fact that a policyholder may, because they have insurance, act in a way which makes the insured event more likely.

Q31 Well answered by most, although some candidates lost marks by simply giving an example for each rather than defining, as the question required.

32 Any four of the following factors might be discussed to explain economies of scale:

Spreading of fixed costs, e.g. administration, marketing, research and development.

Specialisation; division of labour allows employees to specialise thus increasing productivity. Similarly more specialist equipment is employed as output rises

Physical economies; increasing the volume of a physical object requires a less than proportionate increase in surface area.

Finance; large firms may be seen as more credit worthy and consequently should obtain finance more cheaply.

Bulk purchase; a larger firm is able to exert more pressure on suppliers to set lower prices.

By-products; some production processes produce small amounts of potentially useful by-products. It may not be worthwhile selling this unless the scale of production (and hence the output of the by-product) is sufficiently large.

The principle of multiples; different machines needed in the production process may have different capacities. In this case use of all machines' capacities may only be possible at high output levels.

Q32 *Very well answered. No marks were given where candidates simply stated factors without discussing them.*

33	(i)	<i>Number of employees per week</i>	<i>Marginal product of Labour</i>	<i>Marginal Revenue Product of Labour (£)</i>	<i>Total Revenue (£)</i>
		1	6	57	57
		2	7	66.5	123.5
		3	9	85.5	209
		4	10	95	304
		5	7	66.5	370.5
		6	5	47.5	418

(ii) Diminishing Marginal Returns are experienced when the number of employees per week exceeds 4.

Q33 *Well answered by most. In part (i) full marks were given where candidates either marked the MPL between rows recording the number of employees per week, or in the same rows. In part (ii) full marks were given for '4' or for 'if a 5th person is added', but no mark for '5' by itself.*

34 (i) $Y = C + G + I + X - Z$
 $C = 203 + 0.75(Y + 64 - 100)$
 $Y = 203 + 0.75(Y + 64 - 100) + 120 + 90 + 85 - 68$
 $Y = 403 + 0.75(Y)$
 $Y = \text{£}1612 \text{ million.}$

- (ii) (a) When $G = \text{£}120 \text{ million}$, $Y = \text{£}1612 \text{ million}$.
When $G = \text{£}135 \text{ million}$, $Y = \text{£}1672 \text{ million}$

The increase in $Y = \text{£}60 \text{ million}$.

- (b) When $G = \text{£}120 \text{ million}$, $C = \text{£}1385 \text{ million}$.
When $G = \text{£}135 \text{ million}$, $C = \text{£}1430 \text{ million}$.

The increase in $C = \text{£}45 \text{ million}$.

- (c) When $G = \text{£}120 \text{ million}$, $S = \text{£}191 \text{ million}$.
When $G = \text{£}135 \text{ million}$, $S = \text{£}206 \text{ million}$.

The increase in $S = \text{£}15 \text{ million}$.

Q34 *Poorly answered. Many candidates calculated (i) incorrectly but went on to correctly derive the increases in (ii). Conversely some candidates who calculated the first part correctly, complicated part (ii). Many candidates neglected to take taxation into account in part (i).*

35 The existence of international trade:

- (a) allows countries to specialise in the production of the goods which they can produce relatively more efficiently than other countries.
- (b) increases the scope for benefits from economies of scale by increasing the size of the available markets.
- (c) increases the range of goods and services which consumers can buy.
- (d) leads to lower prices through increased competition.

Q35 *Not very well answered. No marks were given where candidates simply stated factors without explaining them.*

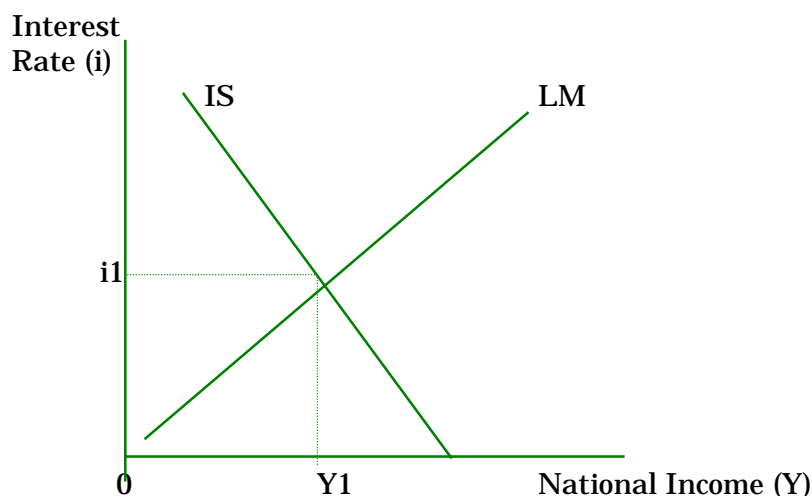
36 Economists explain economic growth in terms of increases in:

- (a) capital; an increase in the stock of capital occurs when new investment exceeds depreciation of the existing stock of capital.
- (b) labour; an increase in the labour force occurs as a result of population growth or an increase in the proportion of the population employed - that is the participation rate or an increase in working hours. Furthermore, the productivity of labour can be increased through education and training and health improvements.
- (c) land; increases in the availability of land and natural resources may arise from more efficient land use and the discovery of new resources.
- (d) technical knowledge; the rate of technical advance will depend on the amount of research and development taking place giving rise to new inventions and innovation.
- (e) economic efficiency; improved utilisation of the available capital, labour, land, and technical knowledge can lead to increased growth.

Q36 *Poorly answered. Again, no marks were given where candidates simply stated factors without discussing them.*

- 37** (i) Points on the IS curve show combinations of interest rates and national income at which injections equal withdrawals and consequently the total output (national income) equals total expenditure, giving equilibrium in the markets for goods and services.

Points on the LM curve show combinations of interest rates and national income at which the demand for money (liquidity) equals the supply of money, giving equilibrium in the money markets.



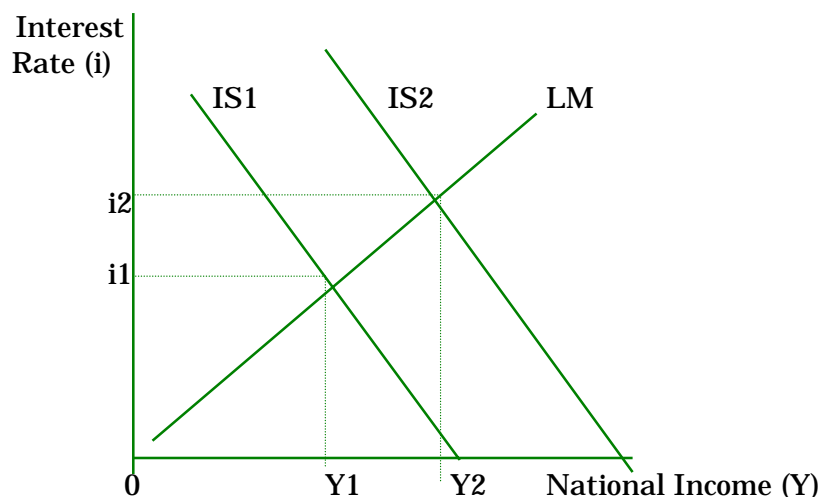
The IS-LM curves are drawn on a graph with interest rates on the vertical axis and national income on the horizontal axis. The IS curve slopes downward from left to right showing that lower rates of interest lead to

higher levels of national income. The LM curve slopes upward from left to right showing that in order to obtain equilibrium in the money market, given the supply of money, higher levels of national income are associated with higher rates of interest.

At the rate of interest and level of national income where the IS-LM curves intersect in the graph both the money market and the market for goods and services are in equilibrium.

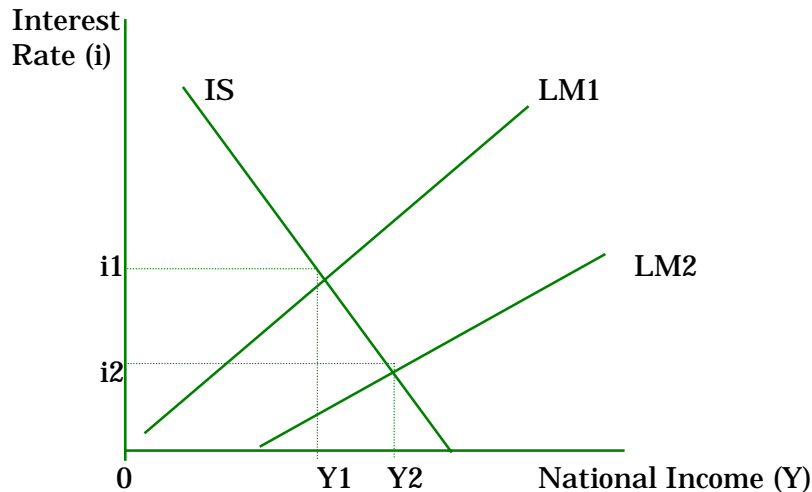
- (ii) (a) An increase in injections will shift the IS curve to the right giving an increase in the equilibrium rate of interest and national income. The rate of interest rises because the increase in national income, brought about by the increase in injections times the multiplier, increases the demand for money. Given a fixed money supply interest rates must rise to choke off the excess demand for money.

The increase in interest rate will reduce investment and consumer expenditure so that national income does not rise by the full multiplier effect. The fall in investment and consumer expenditure is called crowding out.



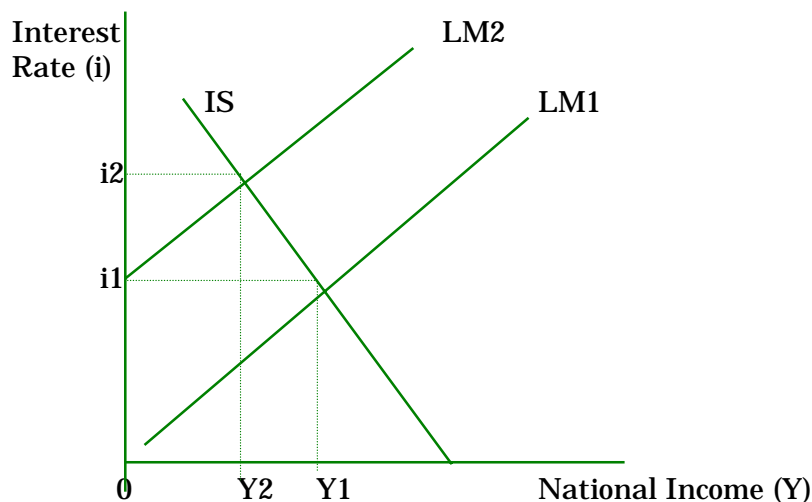
- (b) An increase in the money supply will shift the LM curve to the right giving a reduction in the equilibrium rate of interest and an increase in the equilibrium national income.

The increase in the money supply gives an excess supply of money causing rates of interest to fall. The fall in the rate of interest encourages higher levels of investment and consumer expenditure, increasing injections causing the equilibrium level of national income to rise.



- (c) An increase in the average price level will result in a reduction in the real value of the money supply. A reduction in the money supply will shift the LM curve to the left giving an increase in the equilibrium rate of interest and a fall in the equilibrium level of national income.

The reduction in the money supply gives an excess demand for money causing rates of interest to rise. The rise in interest rates discourages investment and consumer expenditure, reducing injections and causing the equilibrium level of national income to fall.



Q37 This question was particularly poorly answered. Many candidates spent too much time on part (i) rather than part (ii), despite the clear allocation of marks between the two parts. The standard of diagrams overall was very poor in this question. A surprisingly high number of candidates confused the slope of the IS and LM curves.

Candidates who did well tended to have simple, accurate diagrams and short, clear supporting text.