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**UNIVERSITY OF LONDON**

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**BSc degrees and Diplomas for Graduates in Economics, Management, Finance and the Social Sciences, the Diploma in Economics and Access Route for Students in the External Programme**

**Introduction to Economics**

Monday, 15 May 2006 : 2.30pm to 5.30pm

Candidates should answer **FOUR** of the following **NINE** questions: **QUESTION 1** and **ONE** further question from Section A, and **QUESTION 6** and **ONE** further question from Section B. All questions carry equal marks.

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## SECTION A

Answer **question 1** and **one** further question from this section.

1. Answer **three** of the following questions.

- (a) To produce one unit of commodity  $x$  requires only half a unit of labour (no capital is needed). Each unit of  $x$  needs storage space during the production process which is limited to up to 180 units of  $x$ . Commodity  $y$ , on the other hand, requires a quarter of a unit of labour and half a unit of capital for the production of one unit. There are 100 units of labour and 100 units of capital.
- Draw the production possibility frontier.
  - What will be the opportunity cost of  $y$  when we produce 30 units of it?
  - What will be the opportunity cost of  $x$  when we produce 80 units of it?
  - Had we produced 120 units of  $x$  efficiently and the international price of  $x$  was 1  $y$  per  $x$ , what would now be produced in this economy?
- (b) Explain how we derive the demand schedule for goods from consumer choice theory?
- (c) If price elasticity of demand is  $-3$ , it means that a fall in price would increase consumers' spending. True or false? Explain.
- (d) An individual chooses to consume 60 units of  $y$  and 40 units of  $x$  when the price of both goods is 5 (there are no other goods in the economy). When the price of  $x$  falls to 2, the substitution effect (based on the Hicksian definition of real income) will lead the individual to choose a bundle of 60 units of  $x$  and 40 units of  $y$ . If the government reduced this individual's income by 150, he will be as well off as before the change in the price of  $x$ . True or false? Explain.
- (e) Show why it is that the marginal cost function would always cut the average cost function at the minimum average cost.
- (f) In the short run, fixed costs are 16,000 and the variable cost is a function  $x^3$  of output  $x$ . There will never be a price at which the firm will have to stop its operations immediately. True or false? Explain.
- (g) The short run demand for labour is steeper than the long run demand. True or false? Explain.
- (h) An increase in the cost of capital would have no impact on a competitive industry in the short run but would necessarily cause a rise in the long run equilibrium price as fewer firms will stay in the industry. True or false? Explain.

(question continues on next page)

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- (i) If we observe that in all markets prices are equal to marginal cost, we may conclude that the economy is necessarily both productive and allocatively efficient. True or false? Explain.
  - (j) A monopolist is facing a constant price elasticity of demand. An increase of 10% in its marginal cost will cause an increase of 10% in the equilibrium price. True or false? Explain.
  - (k) As there are no profits above the normal in the long-run equilibrium of monopolistic competition, the outcome is as efficient as that of a perfectly competitive market. True or false? Explain.
  - (l) Public goods, like private goods, would be efficiently provided if the marginal costs equal the willingness to pay. True or false? Explain.
2. A beauty parlour 'Drop Dead Gorgeous' (DDG) wishes to create an exclusive and discerning clientele for its beauty treatments. To get the type of clients it hopes for, the parlour sets the price per treatment above the market rate. To get the exclusive attention of its clients, it only accepts people who normally take more than a certain number of treatments per period (say, B). These first B visits are part of a joining fee package.
- (a) Describe the budget constraint facing consumers. What are the conditions on the effective price per visit (of the first B visits) for the proposal to attract some customers?
  - (b) Will all consumers wish to join DDG?
  - (c) Could joining the clientele of DDG mean a reduction in one's visits to the beauty parlour? If so, would this mean that beauty treatment is an inferior good?
  - (d) What will happen if the price of regular beauty treatment falls?
3. The market for trainers is comprised of two types of producers: ethical and non-ethical producers. The former produce locally and pay the market wage rate while the latter take advantage of cheap labour in other countries. Suppose that at first, the two types of producers had access only to the local labour market and the industry was in long run equilibrium.
- (a) Draw the initial equilibrium in the market.
  - (b) Describe what will happen in the market once the non-ethical traders have access to cheap labour in other countries. Could the ethical traders survive these changes?
  - (c) Critics of ethical traders argue that by insisting on their ethical principles they end up harming workers in the other countries as well as their own customers. Explain and discuss such a claim.

4. The government wishes to reduce the inefficiency created by a monopolist. To this end, the government proposes to buy any quantity at the current market price (which is the monopolist's equilibrium prior to government intervention).
- (a) Analyse the effects of the policy on the monopolist market.
  - (b) Will the government policy make any difference to the equilibrium price and quantity in the market?
  - (c) Under which conditions will this policy be desirable?
  - (d) Will you advise the government to offer to buy any surplus at the price which would have emerged had the market been competitive?
  - (e) Will your advice in (d) depend on whether the monopolist could discriminate (namely, that the monopolist would sell the good to the government at a different price from the price he charges private consumers)?
5. (a) Show how the supply of labour is derived. Is there any reason to believe that leisure is an inferior good?
- (b) Suppose now that the government proposes to give everyone a basic income irrespective of the number of hours worked and to tax wages to help fund the scheme.
- i. Analyse the effect that the proposal will have on individuals' choice of leisure.
  - ii. What would be the effects of this on the supply of labour and equilibrium wages?
  - iii. Would the outcome of the deal benefit the workers?
  - iv. Would the economy as a whole benefit from the proposed legislation?

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## SECTION B

Answer **question 6** and **one** further question from this section.

6. Answer **three** of the following questions.

- (a) An increase in the marginal propensity to import which is accompanied by an increase in the rate of proportional income tax would have no effect on the slope of the IS schedule. True or false? Explain.
- (b) The marginal propensity to consume and the marginal propensity to save add up to 1 only when there is a lump sum tax. True or false? Explain.
- (c) The multiplier of a closed economy with proportional taxes is necessarily smaller than that of an open economy with a lump-sum tax regime. True or false? Explain.
- (d) A monetary contraction will have no impact on a closed economy when prices and wages are perfectly flexible. True or false? Explain.
- (e) There is no 'paradox of thrift' in an open economy with perfect capital mobility and a flexible exchange rate regime. True or false? Explain.
- (f) An increase in government spending which is funded by borrowing from the public in an open economy without capital mobility and with a fixed exchange rate regime will have no effect on domestic investment. True or false? Explain.
- (g) A fall in the government deficit which is equal to a fall in net exports will have no effect on domestic investment. True or false? Explain.
- (h) According to the national accounts, investment always equals savings in a closed economy. Only in equilibrium would savings be equal to investment. Hence, we are always in equilibrium. True or false? Explain.
- (i) What would be the price of a consol bond?
- (j) Derive the Loan multiplier.
- (k) If the public chooses to reduce the amount of cash they hold by 200bn, and there are no assets other than money, the total amount of deposits would increase by 2500bn if the reserve ratio was 10% but there would be no change in the public's wealth. True or false? Explain.
- (l) How does the efficiency wage hypothesis relate to the Classical-Keynesian debate?

7. In a country called Ignoramia, tuition fees in higher education are very high and only a small fraction of the population stays in education after the age of 18. When the government discovered that higher education is actually productive (namely, graduates of higher education institutions have a higher productivity at the work place), it decided to scrap all higher education tuition fees and to increase the number of students.
- (a) Analyse the effect of the policy on a closed economy when prices and wages are flexible.
  - (b) What will happen to the level of investment in this economy?
  - (c) Will your answers change had it been an open economy without capital mobility and with a fixed exchange rate regime?
8. Elections in an economy's main trading partner brought to power a government committed to re-distribution. Thus it embarks on a social policy in which income is transferred from the rich to the poor. Assuming that the marginal propensity to consume of the rich is smaller than that of the poor yet their marginal propensity to import is greater than that of the poor, what will be the implications of such a policy for the home economy when:
- (a) There is no capital mobility and the exchange rate is fixed.
  - (b) There is perfect capital mobility with a fixed exchange rate.
  - (c) There is perfect capital mobility with a flexible exchange rate.
9. The government of an economy in recession believes that it is the relatively high international interest rate which holds back its own recovery. It proposes a suspension of capital mobility. In addition, the central bank of that economy halved commercial banks' reserve requirement.
- (a) Analyse the effects of the policy assuming a fixed exchange rate.
  - (b) Analyse the effects of the policy assuming a flexible exchange rate.

END OF PAPER

