

ENGINEERING TRIPOS PART IIA

Thursday 7 May 2009 2.30 to 4

Module 3E1

BUSINESS ECONOMICS

Answer not more than two questions.

All questions carry the same number of marks.

*The **approximate** percentage of marks allocated to each part of a question is indicated in the right margin.*

There are no attachments.

STATIONERY REQUIREMENTS

Single-sided script paper

SPECIAL REQUIREMENTS

None

You may not start to read the questions printed on the subsequent pages of this question paper until instructed that you may do so by the Invigilator

1 (a) Two individuals, Ann and Bob, have to decide which of three possibilities X, Y and Z, to choose. They employ the following procedure: Ann first eliminates one of the possibilities and then Bob chooses between the remaining two. It is known that Ann prefers X to Y and Y to Z, while Bob prefers Z to Y and Y to X.

Represent this situation as an extensive form game and then find its solution using backwards induction, explaining your reasoning carefully. [40%]

(b) Explain the impact of the following on the level of consumption:

i) a temporary reduction in indirect taxes (such as VAT); [15%]

ii) an anticipated rise in the level of unemployment. [15%]

(c) Using the life cycle hypothesis explain the probable current consumption and saving behaviour of a middle-aged professional whose current annual income is the highest that they earned during their working life and who expects to retire in 10 years time. [30%]

2 (a) Explain the meaning of each of the following terms in consumer theory:

i) perfect complements; [15%]

ii) an inferior good; [15%]

iii) a Giffen good. [20%]

(b) Explain the concept of comparative advantage. [15%]

(c) Discuss which factors may cause shifts in comparative advantage. [15%]

(d) Critically evaluate two economic arguments for protectionism. [20%]

- 3 (a) State the first and second fundamental theorems of welfare economics. [15%]
- (b) ‘The second fundamental theorem of welfare economics demonstrates that equity is compatible with efficiency.’ Using an Edgeworth Box diagram, explain this statement. [35%]
- (c) Using an appropriate diagram, explain the concept of the Phillips Curve. [15%]
- (d) Explain why the Phillips Curve relationship broke down during the 1970s. [15%]
- (e) Using an appropriate diagram, explain the concept of the Expectations Augmented Phillips Curve. [20%]

- 4 (a) What do economists mean by the term *deadweight loss* of a monopoly? [25%]
- (b) Suppose that a monopolist faces the following demand for its output:

$$q = 40 - 2p$$

where q is the quantity demanded and p is price. The monopolist’s average cost of producing q units is given by:

$$AC = 10 + 2q$$

- (i) Derive an expression for the monopolist’s profit as a function of its output. [15%]
- (ii) What is the monopolist’s profit maximizing output? How much profit does the monopolist make? [15%]
- (iii) What level of output would maximize the monopolist’s total revenue? [10%]
- (c) Discuss the possible impacts of the Single European Market and the Single European Currency on economic growth in the European Union. [35%]

END OF PAPER