

UNIVERSITY OF LONDON
IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE

EXAMINATIONS 2002

MEng Honours Degrees in Computing Part IV
for Internal Students of the Imperial College of Science, Technology and Medicine

*This paper is also taken for the relevant examinations for the
Associateship of the City and Guilds of London Institute*

PAPER C442

MANAGEMENT - ECONOMICS AND LAW

Tuesday 7 May 2002, 10:00
Duration: 120 minutes

Answer THREE questions

Paper contains 4 questions
Calculators not required

Section A (*Use a separate answer book for this Section*)

- 1a Explain what is meant by *Gross Domestic Product* (GDP)

Distinguish between *nominal* and *real* GDP

- b Figures show that GDP in the UK grew by 1.9% in 2001, although manufacturing output fell by approximately 5.4% in that period.

Discuss those factors that are likely to have been the cause of the growth in GDP.

- c A country has experienced a rate of growth in GDP greater than that experienced by its major trading partners.

Analyse the likely effects of this on:

- i) the country's overseas trade position
- ii) the value of the country's currency as measured against other leading currencies.
- iii) the rate of inflation experienced by that country.

The three parts carry, respectively, 20%, 20% and 60% of the marks.

- 2a i) Distinguish between *Demand-Pull* and *Cost-Push* inflation.
- ii) Describe in outline the measures that can be taken by government to reduce the rate of inflation in an economy.
- iii) Discuss the long-term benefits for an economy of achieving a sustained level of inflation of 0% pa.
- b i) Discuss the items that typically appear in the *current account* of the balance of payments.
- ii) Explain why the overseas trade position of a country may normally be expected to improve if that country is experiencing a period of recession.
- iii) Discuss how a country can finance a short-term deficit on its current account.
- iv) Discuss the measures that would need to be adopted to overcome a long-term deficit on the current account.

The two parts carry, respectively, 50%, and 50% of the marks.

Section B (*Use a separate answer book for this section*)

- 3 Andrew is the computing officer at his company, Big Ltd. Part of his job is to ensure that the employees at Big Ltd have the best programs to carry out their tasks. A need arises for a spreadsheet program. Andrew purchases one, the Dudsheet, from Crummy plc, a large retailer. Dudsheet is produced by Error Co. The Dudsheet program has been poorly produced and it destroys all of the hard drives in the computers at Big's head office. The cost of replacing the computers is £100,000. In addition, Big loses the work of a number of major clients – a loss of some £2 million. Big is also unable to take on any more work for the next month and consequently cannot earn the £3 million it otherwise would have during that period.

Advise Big as to their rights.

- 4 Fast Ltd is a large holiday travel company. You are employed as a manager with Fast and are asked to prepare a memorandum discussing the law with regard to each of the following circumstances.
- a Georgia is a computer programmer employed by Fast. In her spare time she writes and distributes information about computer virus codes. She also brings in a floppy disk which contains a worm. Another employee, Harold, places the disk into one of Fast's computers. The worm, in replicating itself, affects all of Fast's computers and many of its customers' computers by removing large amounts of data.
 - b Ivor is determined to discover where his girlfriend has been on holidays over the past decade. As a Fast booking agent, he has access to some of Fast's data and searches it to locate her name. For those portions of the data to which he does not have access, he asks one of Fast's managers, Jack, to search for his girlfriend's travel details. Jack does so and provides Ivor with the results.
 - c Karen is a computer programmer employed by Fast. She develops a program to consider each customer's holiday preferences. She sells an adaptation of this program to Lowly Ltd, a competitor of Fast. At home, Karen develops another program to consider the food preferences of various on-line grocery shoppers. She sells this program to various on-line food retailers.

The three parts of this question are equally weighted.