

UNIVERSITY OF LONDON
IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE

EXAMINATIONS 2001

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

Thursday 10 May 2001, 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 Define what is meant by the *marginal propensity to consume* (mpc) and the *multiplier effect*.

Discuss the conditions that must exist for the full multiplier effect to be felt.

A government plans to spend £1000m per year for each of the next five years on inner-city regeneration projects.

Discuss the overall effect that this is likely to have on Gross Domestic Product if:

- i) no additional taxation is raised
 - ii) additional taxation to the value of £800m is to be raised in each of the next five years. (Take the value of $mpc = 0.8$).
- b A report earlier this year (February 2001) stated that economists believed 'that the American economy will experience no more than a short pause in growth in the first half of the year before bouncing back in the second'.

Discuss the fiscal and monetary measures that can be used to encourage growth in an economy.

Comment on the effectiveness of using such measures to prevent a downturn in an economy.

The two parts carry, respectively, 60% and 40% of the marks.

- 2a Distinguish clearly between *Demand-Pull*, *Cost-Push*, and *Expectational* inflation.
- b Distinguish between *fixed* and *floating* exchange rates. Outline the arguments for and against adopting a system of fixed exchange rates.

Briefly discuss the *economic* advantages of adopting a common European currency.

- c The currency of a country has appreciated over a period of several months against the currencies of its main trading partners.

Discuss the possible effects of this appreciation for the country concerned on:

- i) its rate of GDP growth
- ii) the rate of inflation experienced by this country distinguishing between the various factors (Demand-Pull, Cost-Push, Expectational) that may be at work
- iii) its 'invisible' earnings.

The three parts carry, respectively, 20%, 40% and 40% of the marks.

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

- 3 You are employed by a British firm which not only develops its own computer programs for use within the firm, but also holds data in various databases. Your manager is concerned that employees and freelance contractors with the firm do not pass the software programs or ideas about the development of software programs or information contained in the databases to competitors during or after the course of their employment. Prepare a memorandum for your manager which outlines the various methods by which your firm can protect its programs and databases.

Your memorandum should describe the law in the areas set out below and consider the strengths and weaknesses of the protection afforded by each of these areas of law:

- a contract;
- b breach of confidence; and
- c intellectual property law

For the purposes of this memorandum you need not consider the Data Protection Directive 95/46/EC.

The three parts of the question carry, respectively, 15%, 15% and 70% of the marks.

- 4 Reginald collects toy soldiers. He also sells and trades some of the toy soldiers with other like minded individuals. As his collection is large, it is hard for him to keep track of all the toy soldiers and their respective values. He would like an inventory management system to keep track of his collection and the value of the soldiers within it. One day he sees an advertisement by SureFire Success Computers Ltd:

‘All collections of any sort organised. Our Organiser Operations Program will allow you to prepare and maintain an inventory of your collectables. So sure are we of its ability to organise your collection and maintain the values of each piece in the collection that we will provide you with £500 in the event that it does not! Buy now and allow a qualified representative to install the Organiser Operations Program for you’.

Reginald purchases a copy of the Organiser Operations Program from Wesellit Programs. Wesellit sends Bertha to install the program. Bertha installs the program. She also places a very graphic and frightening screen saver on Reginald’s computer. While she had meant to remove it before she left, she forgot to do so. When Reginald later uses his computer, the screen saver is activated and Reginald is so startled he slips from his chair and injures his head when he hits the floor. In addition, the Organiser Operations Program is not a success. Reginald cannot keep track of the soldiers properly; worse yet, the program interchanges the value of the soldiers and Reginald has now traded and sold some soldiers at a severe loss. As a result of these poor trades and sales, he has lost in excess of £1,000.

Advise Reginald with respect to the rights and remedies available to him in

- a tort
- b contract.

The two parts of the question carry, respectively, 40% and 60% of the marks.