UNIVERSITY OF LONDON

IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE

EXAMINATIONS 1997

BEng Honours Degree in Computing Part III
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 3.55

ORGANISATION AND FINANCE
Thursday, April 24th 1997, 2.00 - 4.00

Answer THREE questions

For admin. only: paper contains 4
questions

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

1.   Your boss has just become CEO of a large company - you are to join her there as part of the senior management team. As is often the case, a change in leadership sometimes results in a change of strategy. Your boss intends to close down some parts of the business and expand others, which will involve introducing new technology and also entering a new market segment.

Your special brief is to liaise with the Marketing and Human Resource Management functions.

Discuss why it is important that these functions should have close involvement in the process for deciding strategy. What implications would the particular changes described above have for these two functions?

Use appropriate examples to illustrate the points you discuss.

2.   You are a manager in a multinational company. You are based in the headquarters of the company but often spend periods in other parts of the world.

Discuss why it is important to understand how the people that you manage might differ. How might you characterise these differences?

Reinforce your discussion with illustrative examples and any appropriate theories.

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

3a   Southern Software Ltd is keen to enter the software products industry. It has been presented with two mutually exclusive projects each involving an initial outlay of £20,000 payable immediately with returns expected over a period of three years. The expected trading conditions for the coming three years are somewhat uncertain; it is thought that the economy may experience either a sustained boom, or sustained steady growth or a prolonged recession. The earnings for the two projects have been estimated for each of the possible trading conditions and are given in the table below:

Possible Trading Conditions	Earnings	
	Project A	Project B
Boom	£20,350 pa	£13,270 pa
Steady Growth	£11,460 pa	£11,460 pa
Recession	£2, 570 pa	£9,650 pa

It may be assumed that the earnings arise at the end of each of the relevant years. It is company policy to achieve a return of at least 10% on every project in which it engages.

   i)   For each project, calculate its Net Present Value (NPV) for each of the three different trading conditions possible.

   ii)   It has been estimated that there is a probability of 0.2 that boom conditions will exist during the three years of the project; the probability that conditions of steady growth will exist has been estimated at 0.6, and the probability of prolonged recession has been estimated at 0.2

          For each project, calculate its expected NPV using these probabilities.

   iii)   Prepare a short report for management advising them which of the two projects, if any, should be adopted.

   b   The management of Southern Software are considering an additional investment project and have been presented with the following estimates:

   A - Immediate initial outlay   : £10,000
   B - Annual revenues   : £20,000 (received at year-end)
   C - Annual costs   : £15,000 (payable at year-end)
   D - Duration of project   : 3 years
   E - Cost of capital   : 10%

   For *each* of the estimates A-E above, calculate the minimum percentage change in the value of that estimate that would be required so as to render the project unprofitable, on the assumption that the other four values remain unchanged (e.g. by how much would A have to change before the project becomes unprofitable, with B-E remaining at their original estimated values).

4   Note 27 to Amstrad plc's 1996 accounts was as follows:

Net cash (outflow)/inflow from operating activities	1996 £000	1995 £000
Operating loss	(14,925)	(5, 155)
Depreciation	7, 985	5, 942
Profit on disposal of fixed assets	(103)	(87)
Exchange differences	(538)	1,101
Goodwill written back	348	-
(Increase)/Decrease in stocks	(15,218)	25,111
(Increase)/Decrease in debtors	(10,369)	8, 977
(Increase)/Decrease in creditors	15,413	(3,171)
	(17,407)	**32,718**

Explain

a   the relevance of cash flow statements in general, and the Amstrad figures in particular;

b   what depreciation is and why it does not result in a cash flow;

c   how exchange differences (foreign currency translation) are accounted for;

d   what goodwill is and how it is accounted for using numerical examples to illustrate.

e   why Amstrad's "gearing" would be important in assessing the business.

End of paper