This paper is not to be removed from the Examination Halls

UNIVERSITY OF LONDON **279 0059 ZA**

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

Financial Management

Tuesday, 6 June 2006 : 2.30pm to 5.30pm

Candidates should answer **FOUR** of the following **NINE** questions: **ONE** from Section A, **ONE** from Section B and **TWO** further questions from either section. All questions carry equal marks.

Workings should be submitted for all questions requiring calculations. Any necessary assumptions introduced in answering a question are to be stated.

Extracts from compound interest tables are given at the end of the paper.

8 column accounting paper is provided. If used, it must be fastened securely inside the answer book.

A hand held calculator may be used when answering questions on this paper but it must not be pre-programmed or able to display graphics, text or algebraic equations. The make and type of machine must be stated clearly on the front cover of the answer book.

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SECTION A

Answer **one** question from this section and **not more than** a further **two** questions. (You are reminded that four questions in total are to be attempted with at least one from Section B.)

1. Rippon plc is in the bakery business. Its sales over the past few years have been pretty stagnant. The sales director has prepared the outline of a new marketing strategy which you, the finance director, are required to evaluate financially and present your report to the next Board meeting.

The past year's sales, all made on credit, amounted to £150 million, of which gross profit was 30%. The average inventory period for the company was 7 days, with the average payment period being 55 days. (Based on Cost of Goods Sold (COGS) figures.) There was an average debtors period of 40 days.

The new sales plan is to give customers 7 days free credit. Customers then will be offered a 5% cash discount on all payments to Rippon made within a 7 day period after the end of the 7 day free credit period. It was estimated that 35% of the customers will pay for their purchases at the end of the 7 day discount period to gain the 5% discount, while 45% of customers would take an average of 45 days from sale date to pay, with 20% taking an average 90 days from date of sale. The sales director also believes that the creditor payment period should be reduced from 60 to 40 days. He further estimates that all this will increase administrative costs by £500,000 over the year.

Arising from this strategy goods to the value of £189 million are predicted to be sold over the year to customers. The gross margin will remain unchanged.

A non-executive director of the firm believes that the company's net working capital cycle period should not exceed 10 days. The financing cost of overdraft facilities is 12% pa. The company's cost of capital is 25% pa.

Required:

(a) Produce a schedule showing the changes in next year's profit arising from the sales director's new plan. **(9 marks)**

(b) Evaluate and comment on the financial picture presented in your schedule for your answer to (a) above. **(4 marks)**

(c) Calculate the net working capital cycle period for both the past year's operations and the new strategy. Should the 'free credit' period be treated as part of the inventory period or the debtors period? Give brief reasons for your selection. **(8 marks)**

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(d) Comment on the non-executive director's view of the maximum length of the net working capital cycle period both in the generality and in the light of your calculations in (c). **(4 marks)**

2. York plc is in the bio-tech industry researching and developing new drugs which, once they have obtained government approval, are produced under patent by other drug manufacturing companies.

York plc has just announced its after-tax profits for the year at £168 million. At the same time it announced a bonus issue of 6 for 1 shares based on its original share capital of £120 million (£1 shares nominal value). This bonus issue will be set off against £720 million of the company's retained earnings.

The company has decided to change its corporate strategy and by raising new capital invest it in new ready- made facilities in order to manufacture and distribute all the new drugs it develops. All existing manufacturing contracts of past developed drugs would be unchanged. To implement this strategic change the company must raise £1200 million more capital. It is considering various ways of raising the new capital. The first two alternatives under review here are a rights issue at a share price of 80% of the present market price of £3.00 (ex bonus issue) at a rate of 5 new shares for 8.4 existing shares. The second method is to raise debt by issuing £1200 million 8% (after tax) convertible debentures. These debentures can be converted in three years' time at the rate of 30 shares per £100 debentures.

The company predicts the following profit streams for the next 4 years. The existing business is estimated to produce the following annual profit profile:

		Profits (£ million)		
Year	1	2	3	4
Net profit after tax	185	204	211	234

The predicted profit stream arising from the new investment would increase the above profits by the following amounts:

		Profits (£million)		
Year	1	2	3	4
Net profit after tax	212	293	397	547

At present the price earnings (PE) ratio is 15 times(x). If the rights issue is undertaken, the company's bankers predict a decline to 14x, while if the convertible debentures are issued the PE ratio will drop to 10x and rise again to 14x, if and when all the debentures are converted in 3 years' time.

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Required:

(a) Show the share price values over the next four years under the three following situations. (Show share price values to nearest pence):

i. York continues without making any new investments or raising new capital.
ii. York undertakes the new investment having raised the required funds by way of a rights issue.
iii. York undertakes the new investment having raised the required funds by issuing the convertible debentures. (Assume all debentures are converted in 3 years' time.) **(15 marks)**

(b) Write a report analysing the information produced in (a) above and recommend to the Board of Directors which of the three proposals will maximise shareholder value, giving your reasons and explanations for your recommendation. **(10 marks)**

3. Hull plc is a UK based construction company. The company is currently considering responding to a tender sent out by the government to redevelop an old, unused railway station in Goole and make it into a leisure centre. The railway station, a state of the art building at its time of building 20 years ago, was erected for a cost of £1,500,000. The government will pay £7,000,000 to the company that wins the tender. The company expects that the first half of the payment will be made immediately, at the start of the project and the second half, will be made once the project is complete, in 2 years time.

Hull plc has drawn up the following details and wants your help to determine whether it should make a bid.

i. The project will require purchase of new equipment at a cost of £3,000,000 payable immediately. The equipment will be used for the next two years, after which it will be sold for an estimated scrap value of £1,000,000.
ii. Estimated annual variable costs associated with the project are as follows:

	£
Materials	600,000
Labour	500,000
Variable overhead	300,000

iii. The annual fixed costs, inclusive of depreciation have been estimated at £1,400,000 per annum. The company uses the straight line method to calculate annual depreciation levels.

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iv. In the final year of the project, the company will subcontract the landscaping of the gardens to a local landscape designer. He has quoted the company a cost of £400,000, payable at the end of the year.

The company uses a cost of capital of 14% when evaluating new investment proposals; this rate is the company's average cost of capital.

Required:

(a) Advise the directors of the company whether it is in the company's interests to submit a bid to the local government's tender. Support your advice with appropriate calculations. **(12 marks)**

(b) Reconsider your advice in (a) above if the government decided to pay the company the full £7,000,000 at the end of the project. Support your reconsideration with appropriate calculations and explain the basis of the change in your advice to the directors. **(3 marks)**

(c) Calculate and then discuss the implications of each of the following on your calculations in (a) above:

i. you learn that the above proposed investment falls into an asset risk class which has a required rate of return of 12%;
ii. the landscape designer demands his fees at the start of his work, i.e. at the start of year four;
iii. the new equipment that the company needs to purchase is paid for at the end of the first year. **(10 marks)**

Notes:

i. Assume all cash flows occur at the end of the year unless otherwise stated.
ii. Ignore taxation and inflation.
iii. Discount Rates are at the end of Section A.

4. Ackworth plc makes rock crushing equipment in its British factory. A German customer has purchased some equipment and under the terms of the contract is required to pay €8.5 million in six months time. The senior executives of Ackworth presently are debating whether, and if so how, to hedge against the foreign exchange risk associated with the receipt. Half the executive group believe that in six months time the exchange rate per £1 will fall to €1.37 while the other half believe it will become €1.43. Faced with these views and uncertainties the company is considering a number of alternatives which are as follows:

i. To take out a forward exchange contract.
At present exchange rates are:

£/€ spot	€1.4010 – 1.4132 per £1
6 months forward	€0.0095 – 0.0085 premium

ii. To take out a currency option to hedge against the risk. The bank can provide an over-the-counter option at an exercise price of £1 = €1.418 with a premium cost of £1.00 per €100.

iii. To use a money market hedge.
The annual interest rates are UK 6.2%, Europe 3.0%.
The bank would charge 0.5% of the final receipt to administer the operation.

iv. To do nothing.

Required:

(a) Show the effects of each of these four alternatives under consideration assuming that the exchange rate in six months has moved to

i. £1 = €1.37
ii. £1 = €1.43 **(12 marks)**

(b) Discuss the main disadvantages and advantages of the alternatives available to Ackworth. **(8 marks)**

(c) Evaluate the results prepared under (a) and in the light of your discussion in (b) recommend the alternative the executives should select, giving your reasons. **(5 marks)**

DISCOUNT RATES

Year	Rates 12%	14%
1	0.8929	0.8772
2	0.7972	0.7695
3	0.7118	0.6750
4	0.6355	0.5921

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SECTION B

Answer **one** question from this section and **not more than** a further **two questions.** (You are reminded that four questions in total are to be attempted with at least one from Section A.)

5. 'The usefulness of financial ratio analysis in the evaluation of annual corporate reports is severely limited by various factors.' Describe and discuss.

6. Describe and discuss the Capital Asset Pricing Model and its relevance to investors in equity shares.

7. Several risk measurement models, including monte carlo simulation, decision trees and sensitivity analysis, have been described as having little practical relevance. Review and discuss this position both for the models stated above and any others you can think of.

8 Briefly describe and critically evaluate investment evaluation techniques that can be used in a riskless world and applied to situations where resources are limited. Then relax the assumption concerning risk and discuss the relevance of the techniques in the new set of circumstances.

9. Critically evaluate the 'Dividend Irrelevancy Theory' originally propounded by Modigliani and Miller.

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