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UNIVERSITY OF LONDON

279 0059 ZB

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.

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. Cemys 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.

Cemys has just announced its after-tax profits for the year at £120 million. At the same time it announced a bonus issue of 4 for 1 shares based on its original share capital of £60 million (50p shares nominal value). This bonus issue will be set off against £240 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 £600 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 12 existing shares. The second method is to raise debt by issuing £600 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	132	146	151	167

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	120	169	235	329

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 11x 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. Cemys continues without making any new investments or raising new capital.
 - ii. Cemys undertakes the new investment having raised the required funds by way of a rights issue.
 - iii. Cemys 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)**

2. Penylan 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 £72 million, of which gross profit was 30%. The average inventory period for the company was 7 days, with the average payment period being 60 days. (Based on Cost of Goods Sold (COGS) figures.) There was an average debtors period of 45 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 Penylan made within the 7 days after the end of the 7 day free credit period. It is estimated that 40% of the customers will pay for their purchases at the end of the 7 day discount period to gain the 5% discount, while 50% of customers will take an average of 45 days from sale date to pay, with a further 10% taking an average 90 days to pay. 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 for the year.

Arising from the new strategy goods to the value of £108 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.

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Required:

- (a) Produce a schedule showing the change 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)**
- (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)**

3. Idwal plc makes rock crushing equipment in its British factory. An American customer has purchased some equipment and under the terms of the contract is required to pay \$10 million in six months' time. The senior executives of Idwal 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 \$1.63 while the other half believe it will become \$1.77. 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	\$1.6904 – 1.6964 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 = \$1.70 with a premium cost of £1.20 per \$100.
- iii. To use a money market hedge.
The annual interest rates are UK 5.7%, USA 2.5%.
The bank would charge 0.5% of the final receipt to administer the operation.
- iv. To do nothing.

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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 = \$1.63
 - ii. £1 = \$1.77 **(12 marks)**
- (b) Discuss the main disadvantages and advantages of the alternatives available to Idwal. **(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)**

4. Lisvane plc is a UK based company that specialises in land regeneration. The company is currently considering responding to a tender sent out by the government to redevelop an old, unused railway station in the Rumney region of Bülth. The station had been built 50 years ago for £1 million. The government will pay £14,000,000 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 4 years' time.

Lisvane 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 four years, after which it will be sold for an estimated scrap value of £400,000.
- ii. Estimated annual variable costs associated with the project are as follows:

	£
Materials	600,000
Labour	800,000
Variable overhead	400,000

- iii. The annual fixed costs, inclusive of depreciation have been estimated at £1,200,000 per annum. The company uses the straight line method to calculate annual depreciation levels.
- 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 £600,000, payable at the end of the year.

The company uses a cost of capital of 12% when evaluating new investment proposals; this rate is the company's average cost of capital.

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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 £14,000,000 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 investment falls into a asset risk class which has a required rate of return of 14%;
 - 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 to be 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.

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. Explain the term 'cost of capital' and state why it is important for a company to calculate carefully its cost of capital. Describe how you would calculate a company's cost of capital using (i) the Gordon Dividend Growth model and (ii) the Capital Asset Pricing model. Discuss any potential differences that could arise between the results of the two methods when calculating a company's equity cost of capital.
6. Explain the term 'efficient' in the context of stock markets and describe the different levels of stock market efficiency that may exist. Briefly outline the roles (if any) that financial analysts and investment managers may play in creating an efficient stock market.

It is reported that some companies have a growth strategy based on acquisition of other listed companies that they perceive as undervalued by the market. In the light of your earlier explanations, discuss this strategy and provide evidence where possible to support your answer.

7. 'Risk measurement models are little used and are of little value in physical investment appraisal in the real world.' Discuss.
8. Discuss the view that it is desirable that managers act solely in the selfish interests of their shareholders.
9. 'The use of financial ratios is valuable in building financial planning models but not in the evaluation of annual external financial accounts.' Discuss.

END OF PAPER