Intermediate Level

Finance

4

IFIN

23 November 2004

Tuesday morning

INSTRUCTIONS TO CANDIDATES

Read this page before you look at the questions

You are allowed three hours to answer this question paper.
Answer the ONE question in Section A (this has 10 sub-questions) Answer the ONE question in Section B Answer TWO questions ONLY from Section C (these questions are on pages 10 – 13).

SECTION A – 20 MARKS

ANSWER *ALL* TEN SUB-QUESTIONS – 2 MARKS EACH

Question One

1.1 A fast-growing global business has a sales budget for next year based on a growth rate of 20% per month. The projected sales for the first month are $150 million. 25% of the sales are paid for by the buyers in the month of purchase and 70% in the following month, the remaining 5% turning into bad debts.

The expected cash receipts from sales in the THIRD month of next year would be

A $150 million.

B $171 million.

C $180 million.

D $216 million.

1.2 Examine the validity of the following statements:

Statement 1
When a yield curve is inverted, long-term interest rates are lower than short-term interest rates.

Statement 2
The most likely cause of an inverted yield curve is government or central bank action in increasing short-term rates.

	Statement 1	*Statement 2*
A	True	True
B	False	True
C	True	False
D	False	False

1.3 BACS (Bankers Automated Clearing Services) is an example of an electronic funds transfer system. Which of the following statements best describes this system?

A It is a facility used mainly to process payrolls and transactions involving standing orders and direct debits.

B It provides same day settlements for large amounts between banks who are members of the clearing system.

C It is a facility used by companies for international transactions.

D It is a network between participating banks for rapid transmission of foreign currencies.

1.4 A company has a current ratio of 2 : 1. It decides to use surplus cash to settle 30% of its total current liabilities.

The current ratio will

A decrease by more than 30%.

B decrease by less than 30%.

C increase by more than 30%.

D increase by less than 30%.

1.5 According to the traditional theory of capital structure, an increase in the use of debt relative to equity will have the following impact on the cost of capital:

A Weighted average cost of capital will always increase.

B Weighted average cost of capital will remain unchanged.

C Weighted average cost of capital will always decrease.

D Weighted average cost of capital may either increase or decrease.

1.6 In which ONE of the following circumstances is the Baumol cash management model likely to suggest an increase in a firm's cash balance?

A When there is an upward movement in interest rates.

B When the transaction cost of buying and selling securities goes up.

C When investors expect the rate of inflation to increase.

D When the firm discontinues a product line, leading to shrinking of its turnover.

1.7 Which ONE of the following is NOT a cause of float?

A Delay in billing.

B Delay in clearance.

C Delay in lodgement.

D Delay in transmission.

1.8 Examine the validity of the following statements:

Statement 1
If share prices move randomly, then technical analysis (that is chartism) will normally predict future share price movements.

Statement 2
If a stock market is semi-strong form efficient, then share prices will respond to new, publicly available information.

	Statement 1	*Statement 2*
A	True	True
B	False	True
C	True	False
D	False	False

1.9 Your company can make short-term investments in an account that pays interest at 5% per annum compounded semi-annually. Sufficient funds need to be invested in the account to be assured of receiving a sum of £500,000 after 6 months, to meet a potential liability.

Rounded to the nearest pound, the sum that needs to be invested is

A £487,500

B £487,656

C £487,805

D £487,950

1.10 To speed up the collection of receivables, a company is considering offering a 3% discount to customers who settle within 12 days, instead of the usual period of 85 days.

Taking into account the effect of compound interest, and based on a 365-day year, the effective annual cost of offering this cash discount would be approximately

A 3·00%.

B 3·09%.

C 15·46%.

D 16·45%.

(Total = 20 marks)

End of Section A

SECTION B – 30 MARKS

ANSWER THIS QUESTION

Question Two

Q Ltd, a family-owned dealer in fertiliser products, has been seeking to introduce greater professionalism in its managerial approach. To this end, the company appointed a full-time managing director two years ago who completely overhauled the marketing and working capital policies followed by the company, resulting in a sharp growth in turnover. Since the growth is expected to continue, the managing director has approached the company's bank for an increase in its overdraft facility.

In support of the application, he has submitted the company's summarised financial statements for the last two years, which are reproduced below:

Income statements	*2002*	*2003*
	£000	*£000*
Sales	39,600	70,800
Opening stock	1,000	1,780
Plus: Purchases	33,380	61,820
Less: Closing stock	(1,780)	(3,400)
Cost of sales	32,600	60,200
Gross profit	7,000	10,600
Selling, general and administrative expenses	(5,200)	(8,300)
Net profit	1,800	2,300
Dividend	1,620	1,620
Retained profit	180	680

Balance sheets	*2002*	*2003*
	£000	*£000*
Assets		
Current assets		
Cash	36	2
Trade debtors	2,304	4,480
Stocks	1,780	3,400
Total current assets	4,120	7,882
Net fixed assets	5,760	7,178
Total assets	**9,880**	**15,060**
Liabilities		
Current liabilities		
Trade creditors	1,800	5,200
Bank overdraft	900	2,000
Total current liabilities	2,700	7,200
Shareholders' funds		
Ordinary share capital	1,800	1,800
Reserves & surplus	5,380	6,060
Total equity	7,180	7,860
Total liabilities	**9,880**	**15,060**

Reviewing the company's performance, the managing director emphasised the effectiveness of his policies by pointing to the impressive increases in sales and profits, and also the big improvement in the operating cycle. But, to the surprise of Q Ltd's managing director, the bank has turned down the request for an increase in the overdraft facility on the grounds that the company is overtrading.

Alan Dimmock, the chairman and major shareholder of the company, wishes to take up the matter with the bank's senior management and has asked you, as the company's management accountant, to write him a report explaining what the bank means, and advising him on the extent to which its contention is justified.

Required:

Write a report to the chairman which includes:

(a) (i) An explanation of the term "overtrading", including a description of its symptoms, and how these symptoms might be caused.

(8 marks)

(ii) A summary of the steps that a company might take to rectify such a situation;

(4 marks)

(b) A discussion of the managing director's statement to the bank that the improvements in Q Ltd's key financial indicators are evidence of the success of the new policies. The second part of your report should include calculation of, and discussion of, any financial ratios that you consider relevant, particularly those relating to the operating cycle and to the bank's view that the company is overtrading.

(18 marks)

(Total = 30 marks)

End of Section B

SECTION C – 50 MARKS

ANSWER TWO QUESTIONS ONLY

Question Three

S plc is a well-established company in the food retailing industry. The company has paid-up share capital of £17·5 million in issue, consisting of ordinary shares with a par value of 50 pence. The shares are currently trading at a market price of 685 pence, ex-dividend.

Full year dividends for the last few financial years have been as follows:

Year ended 31 March	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*
Dividend per share (in pence)	34	31	34	37	42	47

The company also has paid-up preference share capital of £75 million in issue, consisting of irredeemable preference shares with a par value of 100 pence. The preference shares, which pay an annual dividend of 8¼%, are currently trading at a market price of 75 pence ex-dividend. S plc has in issue £100 million of 6% debentures, the current price of which is £94 (per £100 nominal) ex interest. The debentures pay annual coupon interest and are redeemable at par in exactly six years' time. The effective corporation tax rate of S plc is 30%.

As part of their strategy for development of the company, S plc's directors are considering a new project for diversifying into retail banking. Although the company's long-term objective is to maintain the current pattern of capital structure, it proposes to use a new issue of 7% bonds to finance the initial capital investment of £100 million required for the retail banking venture. The company's managing director therefore feels that the coupon interest rate of 7% per annum on the new issue of bonds would be the appropriate discount rate to use for evaluating the new investment proposal. However, S plc's financial controller takes the view that the company's weighted average cost of capital would be more appropriate.

Required:

(a) Comment on the managing director's suggestion that the coupon interest rate of 7% on the new issue of bonds would be the appropriate discount rate for evaluating the new project.

(7 marks)

(b) Calculate the existing after-tax weighted average cost of capital (WACC) for S plc.

(12 marks)

(c) Discuss whether you consider it appropriate to use the company's existing WACC for evaluating the new project.

(6 marks)

(Total = 25 marks)

Question Four

P plc, a company engaged in the telecommunications industry, has paid-up capital consisting of 40 million ordinary shares of 50 pence each. P plc's current annual after-tax earnings are £4·8 million, and the company's shares are trading at a price/earnings multiple of 6·25. The company has developed new technology applications, for the promotion and marketing of which it needs to invest a further sum of £12 million. After lengthy discussions on the best way to raise long-term finance for the new investment, the Board has decided to raise the additional capital through a rights issue at a discount of 20% below the current market price. The company proposes to maintain its current annual dividend payout of £2·4 million for the foreseeable future.

One of the company's directors has questioned the size of the discount being considered, stating that it had always been her belief that shareholder interests would be best served by fixing as high an issue price for new shares as the market would bear. The newly-appointed chairman has explained to her that the size of the discount would be irrelevant for the company's shareholders. Unconvinced by this line of argument, she has asked for an evaluation of the likely impact for herself if she were to either take up the rights issue, sell the rights, or do nothing. She currently holds 520,000 shares in the company. Assume there are no other events which might influence P plc's share price during the period.

Required:

(a) Calculate the theoretical ex-rights share price assuming that the rights issue proceeds on the terms indicated. What would be the value of the right?

(7 marks)

(b) Evaluate the theoretical impact of the three courses of action open to the director, and of other factors which she might need to consider when taking a decision on whether or not to exercise her rights.

(11 marks)

(c) Identify and explain the main advantages of a rights issue as compared to an offer for sale, from the viewpoint of a company.

(7 marks)

(Total = 25 marks)

Question Five

R Inc has a substantial cash surplus, a significant part of which it needs to keep in a portfolio of marketable securities as a precautionary cash balance. This portfolio may be required at short notice for possible payments resulting from legal action against the company.

The company's financial controller has suggested investing this precautionary cash balance in short-term instruments like treasury bills, certificates of deposit or commercial paper through financial intermediaries. However, the managing director wants to know why the funds should not instead be invested in ordinary term deposits with retail or merchant banks.

The balance of surplus cash is to be invested in longer-term securities issued by an associate company. Due to a prevailing reverse yield gap situation, this investment is proposed to be made in the associate company's loan capital rather than its equity capital.

Required:

(a) Explain the main economic functions of financial intermediaries in the economy. Distinguish between retail and merchant banks, describing the most important ways in which each of these types of institution fulfils the functions of a financial intermediary.

(10 marks)

(b) (i) Identify the significant similarities/differences between treasury bills, certificates of deposit and commercial paper. Comment on the relative default risk of these three forms of short-term investment.

(5 marks)

(ii) Describe the other kinds of risk that should be considered when investing surplus cash, and explain why the managing director's suggestion would be less suitable in the particular case of R Inc.

(5 marks)

(c) Explain the terms "yield gap" and "reverse yield gap". In what circumstances might the reverse yield gap situation arise?

(5 marks)

(Total = 25 marks)

Question Six

T Limited, a medium-size exporter of machine tools, keeps large stocks of all required materials. The bulk of the company's stock value consists of one particularly high-cost component, for which it has a steady monthly requirement of 560 units. The current supplier of this component charges a price of £1,400 per unit. Including storage and theft insurance, the holding cost for this component is 10% of its value per year. The company has been negotiating with alternative suppliers with the aim of moving towards a Just in Time (JIT) purchasing system for the high-value component in question.

The location, delivery terms and internal quality control mechanisms of one prospective supplier are such that T Limited would be able to reduce the cost of placing and collecting orders (that is, the ordering cost) from the present level of £150 per order to an estimated level of only £34 per order. Although not exactly a JIT purchasing system, the new arrangement would enable T Limited to have more frequent deliveries of the item with smaller order quantities. However, the prospective new supplier would charge a higher price of £1,402 for the item. The new supplier would agree to discount its price to match the current supplier's price of £1,400, but only if T Limited agreed to a minimum order quantity of 140 units per order.

[Note: In the following calculations, the number of orders placed per year should, if necessary, be rounded upwards].

Required:

(a) Calculate the economic order quantity (EOQ) if T Limited were to switch to the new supplier at the full quoted price of £1,402. If this order size were used, calculate:

(i) the number of orders placed in a year;

(ii) the total annual variable cost (order cost plus stock carrying cost);

(iii) the total annual cost (purchase cost plus variable cost).

(6 marks)

(b) Evaluate whether it would be more cost-effective to purchase the EOQ at the full quoted price, or the larger quantity of 140 units per order at the discounted price of £1,400. Recommend an appropriate course of action for T Limited.

(5 marks)

(c) Discuss the problems that most firms might have in attempting to determine the EOQ.

(5 marks)

(d) Explain the term "JIT purchasing system" and how it might be achieved. Comment on the likely benefits from the introduction of such a system.

(9 marks)

(Total = 25 marks)

End of paper