

Actuarial Society of India

EXAMINATIONS

21st June 2005

Subject CT2 – Finance and Financial Reporting

Time allowed: Three Hours (10.30 – 13.30 pm)

INSTRUCTIONS TO THE CANDIDATES

1. *Do not write your name anywhere on the answer scripts. You have only to write your Candidate's Number on each answer script.*
2. *Mark allocations are shown in brackets.*
3. *Attempt all questions, beginning your answer to each question on a separate sheet. However, answers to objective type questions could be written on the same sheet.*
4. *Fasten your answer sheets together in numerical order of questions. This, you may complete immediately after expiry of the examination time.*
5. *In addition to this paper you should have available graph paper, Actuarial Tables and an electronic calculator.*

Professional Conduct:

"It is brought to your notice that in accordance with provisions contained in the Professional Conduct Standards, If any candidate is found copying or involved in any other form of malpractice, during or in connection with the examination, Disciplinary action will be taken against the candidate which may include expulsion or suspension from the membership of ASI."

AT THE END OF THE EXAMINATION

Hand in both your answer scripts and this question paper to the supervisor.

- Q.1** Which of the following forms of capital should prove the cheapest for a company to finance in the long term?
- A. 11 % secured debentures maturing in 2012
 - B. 12.5% unsecured loan stock to be redeemed in 2008
 - C. 9 % cumulative convertible preference shares
 - D. Equity shares with a net dividend yield of 4 % pa
- Note: Assume that financial markets can allocate capital efficiently. [2]
- Q.2** A Limited Liability Partnership differs from a limited company in that:
- A. it is not a separate legal entity
 - B. there must be one member with unlimited liability
 - C. it has no memorandum or articles of association
 - D. action cannot be taken against individual members for fraud and negligence
- [2]
- Q.3** Which of following is often used by the companies that are suffering from cash-flow problems arising from late payment by customers?
- A. Hire purchase
 - B. Bills of exchange
 - C. Invoice discounting
 - D. Trade credit
- [2]
- Q.4** Which of the following could result in a company obtaining a stock exchange listing:
- I A right issue
 - II An offer for subscription
 - III A placing
- A. II and III only
 - B. I and II
 - C. III only
 - D. I only
- [2]
- Q.5** Which of the following statements are correct?
- I Asset gearing may be defined as : $\text{Borrowing} / \text{Equity}$
 - II Capital gearing may be defined as : $\text{Borrowing} / (\text{Borrowing} + \text{Equity})$
 - III Asset gearing and capital gearing are equivalent.
- A. I is correct
 - B. III is correct
 - C. I & II are correct
 - D. All are correct
- [2]
- Q.6** While calculating “interest on borrowings” to be used in the formula for “income gearing ratio”, the borrowings will not include
- A. long term loan taken from a FI
 - B. trade credit
 - C. overdraft
 - D. commercial paper
- [2]

- Q.7** If Asset cover ratio = 2, shareholders equity ratio = 3 and intangibles = 0, then which of the following is correct?
- A. Asset gearing cannot be calculated based on the given information.
 - B. Asset gearing = 1/6
 - C. Asset gearing = 2/3
 - D. Shareholders equity = Total assets / 6 [2]
- Q.8** Which of the following is correct?
- A.
$$\text{income cover} = \frac{\text{total annual profit before interest and tax}}{\text{annual interest payments due on that issue of loan stock} + \text{all prior loan stock}}$$
 - B.
$$\text{income cover} = \frac{\text{total annual profit before interest and tax}}{\text{total annual interest payments (including accrued but not due)}}$$
 - C.
$$\text{income cover} = \frac{\text{profit on ordinary activities before interest and tax}}{\text{total annual interest payments (including accrued but not due)}}$$
 - D.
$$\text{income cover} = \frac{\text{profit on ordinary activities before interest and tax}}{\text{annual interest payments due on that issue of loan stock} + \text{all prior loan stock}}$$
 [2]
- Q.9** Which of the following would increase the premium for a call option?
- A. Higher strike price
 - B. Very volatile underlying asset and shorter period to expiry
 - C. Very volatile underlying asset and longer period to expiry
 - D. Less volatile underlying asset and lower interest rates [2]
- Q.10** Consider the following definition:
 “The lender’s security is a specified asset, which the borrower cannot dispose of (without the lender’s permission). The lender can repossess upon default or appoint a receiver to intercept income (e.g. rent).”
 This is a definition of a:
- A. eurobond
 - B. warrant
 - C. fixed charge debenture
 - D. floating charge debenture [2]
- Q.11** Batliboi is considering the building of a new toll bridge. In return for financing the bridge, the company is entitled to receive all of the toll revenues generated in each of years 3 to 5.
 If the bridge is a success and proves popular with travelers, then toll revenues are estimated to be within the range of 40-50 pa. If it is not popular, then revenues will instead be within the range of 20-30 pa.
 The cost of building the bridge is estimated to be 50, and if the weather remains fine, it will be completed within one year. Bad weather will cause construction to drag on into year two, when an additional cost of 20 will be incurred.
 Finally, company also faces the risk of possible strike action by the workforce. If a strike occurs, it will increase the costs incurred in each year of construction by 20%.
 Assuming that :
- The probability that the bridge is a success is 2/3
 - The probability of bad weather is 1/2

The probability of a strike is also $\frac{1}{2}$ if weather is good, but only $\frac{1}{4}$ if the weather is bad

All cash-flows are assumed to arise at the start of each year

Calculate the expected NPV of the project using a discount rate of 10 % and comment on your results.

Note: All figures are in Rs. Crore

[11]

Q.12 You are the financial analyst for a manufacturing company that has hit hard times. It is just breaking even and is likely to remain in this condition for the next two years until the restructuring package has time to take effect. The Chief Executive has asked you to advise on the dividend that should be paid by the company for the financial year just ended.

List 3 strategies you would consider and explain the circumstances under which you would recommend each.

[3]

Q.13 Discuss the ways that reported figures can be manipulated to create a false impression of a company's financial position.

[7]

Q.14 Outline agency theory. Give an example of a conflict in business context and provide one possible solution to resolve the conflict.

[5]

Q.15 The following information has been extracted from the Financial Books of XYZ Associates:

Trial Balance as at 31st March 2005

	RUPEES ('000)	
Salaries	112	
Rent & Rates	100	
Share Premium		180
Share capital		700
Sales		1175
Administrative Expenses	45	
Raw Material Purchased	502	
Opening Stock	6	
Bank	12	
Creditors		187
Debtors	245	
Land & Building	1300	
Land & Building- Depreciation		195
Interest	65	
Loan		450
Plant & Machinery -Net	660	
Profit & Loss as at 31 st March 2004		160

Notes:-

- 1) Depreciation is to be charged on the following basis:
 Building-on a straight line basis, assuming a residual value of Rs. 1,00,000 on 31st March 2009.The Book value of the Building on 31st March 2004 was Rs.5,55,000.
 Plant & Machinery – 20% of Reducing Balance. The cost of Plant & Machinery is Rs. 8,00,000.
- 2) The Directors have decided to pay a interim Dividend of Rs. 17,000 for the year.
- 3) The corporation tax charged has been estimated at 20 % of the net profit for the year.
- 4) Closing stock was Rs. 8,000.
- 5) In the opening Balance Sheet, creditors were 1,31,000, Debtors 1,99,000, cash at Bank 6,000 and Loans were 7,50,000.

Prepare Profit & Loss Account for the year ended 31st March 2005 and its Balance Sheet as at that date. These should be in vertical form for publication purpose.

[14]

Q.16 List the Accounting Concepts and describe three most important amongst them. [5]

Q.17 Discuss the complications that arise in the preparation of insurance company accounts. [5]

Q.18 Describe the basic principles of the taxation of capital gains. [5]

Q.19 i) A company treasurer is concerned to protect himself against interest rates rising on a 5 year floating rate loan he has outstanding. Which form of derivative would be most suitable for providing this protection and how might the contract be structured? [4]

ii) Your friend has a view that “buy a share and buy a put and then you are guaranteed to make money.” Comment. [2]

[Total 6]

Q.20 You are the Chief Executive of a large Indian company that builds residential houses. The details of a potential prestigious development site near the Gurgaon have been analyzed and placed before you for a decision. The cost and revenue details of developing the site and selling of the properties are estimated to be as follows:

(All figures in Rs Crore)	Year 1	Year 2	Year 3	Year 4
Initial cost of site	30			
Raw material cost	3	4	4	1
Labour and Contractor cost	2	4	5	2
Tax due on profits		1	2	3
Revenue from Selling Properties		13	23	43

All cash-flows can be assumed to occur at mid of the year except the initial cost, which will be at the start of the year.

You are also given the following information about the company and the equity markets in India:

Number of issued equity shares	30 Crores
Market price per share	105
Risk free rate of return	6%
Market risk premium	8%
Corporation tax rate	30%
Beta of company's equity shares	1.2

The company currently has sufficient cash resources to undertake the project.

- i) The company currently has no debt. Calculate the NPV of the project using the company's WACC. [3]
 - ii) Give two advantages and two disadvantages of the general principle that a company should use its WACC for such a calculation. [4]
 - iii) Estimate the project's internal rate of return. [1]
 - iv) If the company were to alter its capital structure by borrowing Rs. 1000 Crore debt at a rate of 6% and using the proceeds to repay existing equity shares, what would the company's new cost of capital be and how would this affect the viability of the project? [4]
 - v) Suggest two sensitivity tests that could be performed on the data that might give useful analytical information. [2]
 - vi) Describe how you might go about conducting a "shareholder value" analysis. [2]
- [Total 16]**

- Q.21** List the factors that you would consider when deciding whether to setup your new business as a partnership or a company. [3]