

# Actuarial Society of India

## EXAMINATIONS

22<sup>nd</sup> November 2005

**Subject CT2 – Finance and Financial Reporting**

**Time allowed: Three Hours (10.30 – 13.30 pm)**

**Total Marks : 100**

### *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."*

**Candidates are advised that a reasonable standard of handwriting legibility is expected by the examiners and that candidates may be penalized if undue effort is required by the examiners to interpret scripts.**

**AT THE END OF THE EXAMINATION**

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

- Q.1** In which of the following portfolios constructed from combination of security X, security Y and treasury bills, will the standard deviation of expected return be less than the average of that of the two securities in the portfolio?
- I** 50 % Treasury bill, 50 % security X
  - II** 50 % security X, 50 % security Y, and the expected returns from X and Y are perfectly positively correlated
  - III** 50 % security X, 50 % security Y and the expected returns from X and Y are uncorrelated with one another
- A.** I and II only
  - B.** I and III only
  - C.** III only
  - D.** None of the above
- (2)**
- Q.2** Which of the following is not a valid reason for using simulation in order to evaluate an investment project?
- A.** the cash flows are uncertain
  - B.** the required rate of return might vary during the life of the project
  - C.** decision makers are interested in the range of possible outcomes
  - D.** decision makers require an accurate forecast
- [2]**
- Q.3** Share premium account reflects the difference between
- A.** the market price and the issue price of the share
  - B.** the nominal value and the issue price of the share
  - C.** the market price and purchase price of the share
  - D.** the market price and the nominal value of the share
- [2]**
- Q.4** The published financial statements of a company show a gross profit for the year of Rs. 6.5 mn. A major error in the stock valuation has just been discovered. The figure for opening stock was incorrectly overvalued by Rs 1.3 mn. and the closing stock was incorrectly undervalued by Rs 1.6 mn. What would be the revised figure for gross profit for the year after correcting for the error?
- A.** Rs. 3.5 Million
  - B.** Rs. 6.2 Million
  - C.** Rs. 6.8 Million
  - D.** Rs. 9.4 Million
- [2]**
- Q.5** Which of the following statements about taxation is false?
- A.** Taxation is often based on cashflows
  - B.** The marginal rate of tax generally decreases as income increases
  - C.** Taxation is usually assessed in arrears
  - D.** Companies pay corporation tax on their taxable profits
- [2]**
- Q.6** Taxable profits for a company are:
- A.** Un-adjusted pre-tax accounting profits.
  - B.** Trading profits less capital allowances.
  - C.** Operating profits plus capital gains
  - D.** None of the above.
- [2]**

- Q.7** The outstanding loans of company X are:  
(i) 10 % unsecured 2008 – Rs 10 lakhs  
(ii) 11 % subordinated loan 2013 – Rs 20 lakhs  
(iii) 8 % mortgage loan 2007- Rs 10 lakhs
- PBIT for the current year is Rs 10 lakhs  
Which of the following statements are correct?
- I** Income cover on mortgage loan is 2.5  
**II** Income priority percentages for unsecured loan is 8 % to 40 %  
**III** Income priority percentage for subordinated loan is 18 % to 40 %
- A.** I only  
**B.** II and III only  
**C.** III only  
**D.** None of the above [2]
- Q.8** A taxpayer paid Rs. 12,000 for an asset in April 1991 when the retail price index was 133.1. The taxpayer spent Rs. 3,000 on enhancements in July 1994 when the RPI was 144.0. The asset was sold in July 1997 for Rs. 23,000 when the RPI was 156.2. What is the chargeable gain after indexation on this sale, if the tax rate is 20 %?
- A.** Rs. 5,397  
**B.** Rs. 5,663  
**C.** Rs. 4,530  
**D.** Rs. 8,000 [2]
- Q.9** Why is the bank overdraft better than the short term loan, for short term financing needs of a company?
- I** Only money drawn out of its current account is shown as an overdraft.  
**II** The overdraft is repaid whenever any amounts are credited to the account by the company.  
**III** No assets need be secured against the bank overdraft.
- A.** Only I is correct  
**B.** All three are correct  
**C.** Only II is correct  
**D.** Only I and II are correct [2]
- Q.10** Which of the following is not the goal of a financial manager?
- A.** to maximize the share price  
**B.** to invest in projects that display a positive net present value  
**C.** to invest in projects if the rate of return is greater than the cost of borrowing  
**D.** to maximize shareholders wealth. [2]
- Q.11** a) Explain briefly how a risk matrix can be used in the analysis of the risks inherent in a capital project? (4)

- b) Distinguish between systematic risk and probabilistic risk and explain their relevance in a capital project appraisal. (8)  
**Total [12]**

**Q.12** Explain how a holding company would prepare a set of consolidated accounts. [6]

**Q.13** Company X recently bought a 100 % holding in company Y for Rs. 4 crore cash. Immediately prior to the acquisition, the two separate balance sheets were as follows:

All figures in Rs. Crore	Company X	Company Y
Fixed assets	10	4
Current assets	7	2
Current liabilities	(3)	(1)
Long term creditors	(5)	(2)
<b>Total</b>	<b>9</b>	<b>3</b>
Share capital	6	2
Reserves	3	1
<b>Total</b>	<b>9</b>	<b>3</b>

Draw up the consolidated balance sheet for company X following the acquisition [5]

**Q.14** Define the term “depreciation”. What is the purpose of depreciation? [4]

**Q.15** Describe the items under “Share capital” and “Reserves” heads in a company balance sheet. [4]

**Q.16** Discuss the economic advantages and disadvantages of a limited company as a business entity. [8]

**Q.17** You are the managing director of XYZ Company Limited. Currently the company’s shares are not listed on any stock market. List the reasons why your company may seek a full Stock Exchange listing. [5]

**Q.18** A manufacturing company is in the process of making a 1 for 4 rights issue at a premium of 250 %. The company currently has 20 million shares, each of Rs. 100 face value in issue and the current market price is Rs. 450 per share. The company plans to use the cash raised to build a major extension to its factory, thereby doubling production capacity.

- I) Calculate the likely share price after the shares become “ex-rights”.  
 II) Explain, with reasons, the courses of action available to the shareholders, with particular reference to the difference between the rights price and the current market price.

[8]

**Q.19** You are the Finance Manager of XYZ Limited. Most of the board members of XYZ Ltd. are from a non-financial background. Your CFO has asked you to prepare a short report that outlines the limitations in the interpretation of accounts to the board members. Draft a short report to be submitted by the CFO to the Board. **[13]**

**Q.20**

**I)** The Goodyear Welt Company is proposing to replace its old welt making machinery with more modern equipment. The new equipment costs Rs. 10 crore and the company expects to sell its old equipment for Rs. 1 crore. The attraction of the new machinery is that it is expected to cut manufacturing costs from their current level of Rs. 8 a welt to Rs. 4. However, as the following table shows, there is some uncertainty, both about future sales and about the performance of the new machinery:

	Pessimistic	Expected	Optimistic
Sales (lakhs of welts)	40	50	70
Manufacturing cost with new machinery (Rs. Per welt)	6	4	3
Economic life of new machinery (years)	7	10	13

Conduct a sensitivity analysis of the replacement decision, assuming a discount rate of 12 %pa. Assume that Goodyear Welt does not pay any tax. **(12)**

**II)** Goodyear Welt could commission engineering tests to determine the actual improvement in manufacturing costs generated by the proposed new welt machines (See I above). The study would cost Rs. 9.5 lakhs. Would you advise the company to go ahead with the study? **(3)**

**Total [15]**

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