Name :	
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Invigilator's Signature :	

# CS/MBA(NEW)/SEM-3(FT)/FM-302/2009-10 2009 CORPORATE FINANCE

*Time Allotted* : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

## **GROUP – A**

### (Multiple Choice Type Questions)

1. Choose the correct alternatives for any ten of the following :  $10 \times 1 = 10$ 

i) "Golden Parachute" is

- a) a hostile takeover strategy for an acquirer
- b) an option that allows the underwriter of a new issue to buy and resale additional shares
- c) a situation in which a large block of stock is held by an unfriendly company, forcing the target company to repurchase the stock at a premium.
- a large termination payment due to a company's management if they lose their jobs as the result of a merger.

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- ii) Which of the following statements is true ?
  - a) A buyout consummated mainly with debt is called a leveraged buyout.
  - b) In a spin-off, a company is broken up into two or more independent companies.
  - c) An enterprise in which the government holds more than 51% is called a government controlled enterprise.
  - d) A company formed by merger of two companies splitting up once gain into two companies is called reverse merger.
- iii) An Agency cost arises due to
  - a) Cost overrun in implementing new projects
  - b) Failure of budgeted cost
  - c) Restrictions imposed by the supplier of debt capital
  - d) Rise in the cost of production.
- iv) The financial goal of a public sector firm fully owned by the government is to
  - a) maximize the book value per share
  - b) maximize the profits earned by the firm
  - c) maximize the present value of stream of equity returns
  - d) maximize the return on equity.
- v) Which of the following is *not* always a way to increase the value of a company ?
  - a) Increase the growth rate of sales
  - b) Increase the operating profitability (NOPAT/Sales)
  - c) Decrease the capital requirement ( Capital/Sales )
  - d) Decrease the weighted average cost of capital.

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- vi) Which of the following would increase the likelihood that a company would increase its debt ratio in its capital structure ?
  - a) An increase in costs incurred when filing for bankruptcy
  - b) An increase in the corporate tax rate
  - c) An increase in the personal tax rate
  - d) A decrease in the firm's business risk.
- vii) Company *A* and Company *B* have the same total assets, operating income (EBIT), tax rate and business risk. Company A, however, has a much higher debt ratio than Company B. Company A's basic earning power (BEP) exceeds its cost of debt financing ( $r_d$ ). Which

of the following statements is most correct?

- a) Company A has a higher return on assets ( ROA ) than Company B
- b) Company A has a higher times interest earned ( TIE ) ratio than Company B
- c) Company A has higher return on equity ( ROE ) than Company B and its risk, as measured by the standard deviation of ROE, is also higher than Company B
- d) All of the statements above are correct.
- viii) A transaction through which a firm cells a portion of its assets to another firm is called
  - a) Absorption b) Consolidation
  - c) Spin off d) Divestiture.
- ix) A spin-off differs from a split-up in that
  - a) a spin-off is financed using leverage whereas a split-up is not
  - b) the parent company continues to exist in a spin-off while it ceases to exist in a split-up
  - c) a spin-off increases corporate value whereas a split up decreases it
  - d) a spin-off is not hostile while a spilt-up is.

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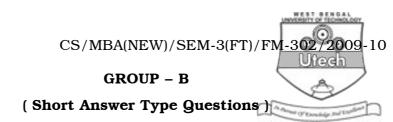
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x) A company plans to pay its first dividend of Rs. 10/- in two years' time with dividends expected to grow thereafter at a rate of 10% per annum. If the relevant cost of equity capital is 15%, what should be the current market value of the share to the nearest rupee ?

a)	100	b)	174
c)	182	d)	200.

- xi) A share with a nominal value of Rs. 25 has a current market value of Rs. 267. The dividend just paid was Rs. 10 and in future dividends are expected to grow at 5% per annum. What is the cost of equity ( to one decimal place )?
  - a) 8.7% b) 8.9%
  - c) 10.0% d) 14.8%.
- xii) Which of the following is a characteristic of equity finance in a company ?
  - a) Ordinary shareholders have voting rights
  - b) Equity finance is not part of the permanent capital of the company
  - c) Ordinary shareholders have unlimited liability
  - d) Ordinary shareholders are entitled to a fixed dividend.



Answer any *three* of the following.

- 2. What are the essential aspects of finance function of a business in the context of the role of financial manager in an organization ?
- 3. Draw a typical organizational chart, highlighting the finance function of a corporation.
- 4. Discuss the interrelationship between investment, financing and dividend decisions.
- 5. Describe the interface of financial policy with corporate strategic management.
- 6. Do the Profitability Index and NPV criterion of evaluating investment proposal lead to the same acceptance-rejection and ranking decision ? In what situation will they give conflicting result ?

#### **GROUP – C**

#### (Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45
7. Your are evaluating an investment in two companies whose past ten years of returns are shown below :

Per cent Return During year Companies 1 3 4 5 2 6 7 8 9 10 WIPRO 37 24 - 7 18 32 - 5 21 18 6 6 I-GATE 32 29 – 12 1 15 30 0 18 27 10

- a) Calculate the standard deviation of each company's returns.
- b) Calculate the correlation coefficient of the companies' returns.

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 $3 \times 5 = 15$ 

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- c) If you had placed 50% of your money in each, what would have been the standard deviation of your portfolio and the average yearly return ?
- d) What percentage investment in each would have resulted in the lowest risk ?
- e) Assume that a yearly risk-free return of 8% was available and that you had held only one of the two companies. Which would have been the better to own ?
- f) Graph the risk and return of each fund. Given your answer to part (d), what was the single efficient portfolio of the two ?
- g) Use part (f) to determine :
  - i) how an average return of 10.8% would have been obtained ?
  - ii) how an average return of 17.8% would have been obtained ?
- 8. Bedrock Iron Ltd. is examining the possiblity of purchasing a machine for a new venture. The machine will cost Rs. 50,000, have a four year life and a scrap value of Rs. 10,000. An additional investment of Rs. 15,000 in working capital will be needed at the outset. This is recoverable at the end of the project. The accountant's estimated figures for the annual trading account are as follows :

	Rs.
Sales	1,00,000
Labour	(20,000)
Materials	(10,000)
Direct Overheads	(20,000)
Allocated Overheads	(15,000)
Depreciation	(10,000)
Annual Profit	25,000

Allocated overhead consists of central administrative costs which are incurred with or without this project. The machine will be eligible for a 25 per cent written down allowance ( on a declining balance method ). Tax is payable at 30 per cent in the year of profit creation.

For a project of this risk class a minimum return of 14 per cent is considered acceptable. Assume no inflation. Calculate the net present value of this investment.

- 9. A company's current operating income is Rs. 4 Lakh. The firm has Rs. 10 Lakh of 10 per cent debt outstanding. Its cost of equity capital is estimated to be 15 per cent.
  - i) Determine the current value of the firm, using traditional valuation approach.
  - ii) Calculate the overall capitalisation rate as well as both types of leverage ratios, (i) B/S and (ii) B/V.
  - iii) The firm is considering increasing its leverage by raising an additional Rs. 5,00,000 debt and using the proceeds to retire that amount of equity. As a result of increased financial risk,  $k_i$  is likely to go up to 12 per cent and  $k_e$  to 18 per cent. Would you recommend the plan?
- 10. a) The scientists at Spectrum have come up with an electric moped. The firm is ready for pilot production and test marketing. This will cost Rs. 20 million and take six months. Management believes that there is a 70% chance that the pilot production and test marketing will be successful. In case of success, Spectrum can build a plant costing Rs. 150 million. The plant will generate an annual cash flow of Rs. 30 million for 20 years if the demand his higher, an annual cash flow of Rs. 20 million if the demand is low. High demand has a probability of 0.6; and low demand has a probability of 0.4. Assume a discount rate of 12%.

Suggest the optimal course of action using decision tree analysis.

b) Why do companies issue preference shares ? 
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- 11. a) What are the major reasons behind cross-border mergers ? What do you mean by a conglomerate merger ? How is it different from horizontal or vertical merger ?
  - b) What are the different methods of valuing a company to be acquired ? 3 + 3 + 3 + 6
- 12. *XYZ* Coroporation has operating income of 150 million, after operating lease expenses of 50 million. The firm has operating lease commitments for the next five years and beyond :

Year	Operating Lease Commitment
1	55
2	60
3	60
4	55
5	50
6 -15	40 annually

The book value of equity is Rs. 1 billion, and the firm has no debt outstanding. The firm has a cost of equity of 11% and a pre-tax cost of borrowing of 6%. The tax rate is 40%.

- i) Estimate the capital invested in the firm, before and after adjusting for the operating leases.
- ii) Estimate the return on capital, before and after adjusting for the operating leases.
- iii) Estimate the Economic Value Added, before and after adjusting for the operating leases ( The market value of equity is 2 billion ).