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GUJARAT TECHNOLOGICAL UNIVERSITY
MBA – SEMESTER 02– • EXAMINATION – SUMMER 2016

Subject Code: 2820003 **Date: 16/05/2016**
Subject Name: Financial Management (FM)
Time: 10.30 AM TO 01.30 PM **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1 (a) Answer the following multi choice questions. **06**

1. If the interest rate is 12%, what is the doubling period as per the rule of 69?
   A. 6 years B. 6.1 years
   C. 7.3 years D. 8 years
2. The Current yield on a bond is equal to:
   A. Annual interest divided by current market price B. Yield to Maturity
   C. Annual interest divided by par value D The Internal Rate of Return
3. Which of the following can be considered as hybrid equity?
   A. Commercial Paper B. Certificate of Deposit
   C. Preference Share D. Equity Share
4. According to Capital Asset Pricing Model (CAPM), well diversified portfolio's rate of return is a function of
   A. Operating Risk B. Market Risk
   C. Reinvestment Risk D. Unsystematic Risk
5. Which of the following is a non-discounted technique of capital budgeting?
   A. Accounting Rate of Return B. Net Present Value
   C. Internal Rate of Return D. None of the above
6. An annuity whose payments occur at the end of each period is called
   A. An ordinary annuity B. An outflow annuity
   C. An annuity due D. An opportunity cost annuity

Q.1 **(b)** Briefly explain the following terms. **04**
1 Operating Cycle
2 Commercial Paper
3 Float
4 Factoring

Q.1 **(c)** Briefly explain the Operating Leverage and Financial Leverage. **04**

Q.2 **(a)** Explain the interrelationship between Investment, Financing and Dividend Decision. **07**

Q.2 **(b)** ABC co. ltd is planning to manufacture a product developed by its R & D department. The new product will be sold at Rs.500 per unit. The cost of production is estimated as follows: **07**

	(% of Selling Price)
Raw Material	60
Direct Labour	20
Overheads	10

Initially, 120000 units will be sold in a year. The credit sales are 80% of the total

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sales. Credit to be allowed to customer will be two months. Other relevant details are given below:

Raw Material Stock Requirement	1 month
Processing Time	Half month (Raw material 100%, Direct Labour and Overheads 50%)
Finished Goods Stock	2 months
Credit allowed by suppliers of Raw Material	Half month
Time gap in payment of wages and overheads	Half month

Cash and bank balance is 10% of Net Working Capital inclusive of cash. Prepare a statement showing the amount of working capital required by the company. You may make assumptions that may be necessary.

OR

Q.2 **(b)** Sunrise Ltd consumes 25000 units of input per year to maintain its production at the current level. The cost of input is Rs. 120 per unit. The cost of placing an order is Rs. 4000 per order while the carrying cost of an inventory for the firm is 10% per annum. The purchase manager has been advocating for bulk purchases to reduce the frequency of purchase. The supplier is ready to offer 2.5% discount in case the firm orders for entire 25000 units in one single order. Are you convinced with the argument of the purchase manager for bulk purchase? Justify your answer with proper calculation. **07**

Q.3 **(a)** Discuss term loans and debenture as ways of raising long term debt. **07**

Q.3 **(b)** The following data relate to two companies belonging to the same risk class. **07**

Particulars	X Ltd	Y Ltd
Expected Net Operating Income	Rs. 200000	Rs. 200000
10% Debt	Rs. 500000	-----
Equity Capitalisation Rate	20%	12.5%

You are required to calculate:

1. Determine the total value and Weighted Average Cost of Capital for each company assuming no taxes.
2. Show the arbitrage process by which an investor who holds 10% equity shares in Y Ltd. Will be benefited by investing in X Ltd.

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OR

Q.3 **(a)** Explain the Net Income (NI) and Net Operating Income (NOI) approaches with graph. **07**

Q.3 **(b)** Ankit Ltd.'s earnings and dividend have been growing at the rate of 15%. This growth is expected to continue for 4 years. After that the growth rate will fall to 12% for next 4 years. Thereafter the growth rate is expected to be 6% forever. If the last dividend per share was Rs. 3 and required rate of return is 10%, what is the intrinsic value per share? **07**

Q.4 **(a)** Discuss the factors which are relevant for determining the dividend payout ratio. **07**

Q.4 **(b)** Assume that a firm has current earnings of Rs.12 per share. It can use these earnings in projects that provide a return of 15%. The expected return to shareholders is 20%. What is the value of the firm under Walter's Model and Gordon's Model, if it retains 50%, 60% and 80% of the earnings? **07**

OR

Q.4 **(a)** Discuss the consequences of bonus issue. Compare a bonus issue with a stock split. **07**

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Q.4 **(b)** Excel Ltd is providing 25% returns to its shareholders. The current market price of its share is Rs. 80 with 1.25 crore shares outstanding. The firm is expected to earn Rs. 4 crore in the year, while its investment requirement is Rs. 6 crore. The company is distributing dividend at 75% of the earnings. To meet the expansion budget, company is thinking of skipping the dividend. You are supposed to calculate the value of the firm under two situations. I) When company continues with its policy of declaring dividend and II) When the company skips the dividend. **07**

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Q.5 A firm in the business of manufacture of automobile spare parts is considering two mutually exclusive technologies for manufacture of hydraulic brakes, designated as Option A and Option B. The cost of these technologies is Rs. 1500 lakh and Rs. 1800 lakh respectively. Depending upon various features of the product obtainable from these two technologies, the firm has developed a forecast of cash flows for five years; the life of each project. These cashflows are as below: **14**

(Rs. in Lakh)

Year	Option A	Option B
1	350	675
2	475	575
3	625	725
4	575	350
5	350	400

Option A is a familiar technology and therefore the firm feels that the current cost of capital of 13% is the appropriate discount rate. Option B is considered riskier than the option A and therefore the firm would like to use a discount rate 15%.

Based on this situation, answer the following questions.

1) What is Net Present Value (NPV)? Calculate the NPV for both the options.
2) What is internal rate of return (IRR)? Calculate the IRR for both the options.
3) Which option company should select following NPV and IRR rule? What are the problems with IRR? Is there any method which is an improvement over IRR? If yes, explain the same.

OR

Q.5 Mr. Tejas Patel, CEO of Paras Textiles is considering an investment proposal for expansion of business. He needs your help in estimating the weighted average cost of capital relevant for evaluating the expansion proposal. The last balance sheet of the company is as follows. **14**

Liabilities	Rs. In Million	Assets	Rs. In Million
Equity Capital	300	Fixed assets	800
Preference Capital	100	Investments	200
Reserves and Surplus	200		
Debentures	400		
Total	1000	Total	1000

- Company's target capital structure has 50% equity, 10% preference shares and 40% debt.
- Company has Rs. 100 par, 12 % coupon, annual payment non cancellable debentures with 8 years to maturity. These debentures are currently selling at Rs. 110.
- Company has Rs.100 par, 10% annual dividend, preference shares with a residual maturity of 5 years. The market price of the same is Rs. 105.
- The equity share of the company is currently selling at Rs, 85 per share. The last dividend was Rs. 1.8 and the same is expected to grow at 12% in future.

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- Company's equity beta is 1.2, the risk free rate is 7% and the market risk premium is estimated to be 7%.
- The tax rate applicable is 30%.
- The new business that the company is considering has different financial characteristics than existing business. Firms engaged in such business have, the following characteristics.
  1. Debt and equity in equal proportion
  2. Cost of debt is 11%.
  3. Their equity beta is 1.5

Answer the following questions:

1. What is Paras's post-tax cost of debt?
2. What is Paras's cost of preference?
3. What is Paras's estimated cost of equity using dividend discount model and capital asset pricing model?
4. What is Paras's weighted average cost of capital using CAPM for the cost of equity?
5. What would be your estimate for the cost of capital for the new business?

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