[This question paper contains 6 printed pages.]

4204 *Your Roll No. .....*

**MBA (FT)** **A**

Paper MBAFT–6204 – FINANCIAL MANAGEMENT

(Admissions of 2010 and onwards)

*Time : 3 Hours* *Maximum Marks : 50*

*(Write your Roll No. on the top immediately on receipt of this question paper.)*

*Attempt* **five** *questions in all including Question No.* **1** *which is compulsory.*

1. Taunton construction Inc.'s Capital situation is described as follows:

Debt - the firm issued 10,000 25-year bonds 10 years ago at their par value of Rs1,000. The bonds carry a coupon rate of 14% and are now selling to yield 10%.
Preferred Stock - Thirty thousand shares of preferred stock were sold six years ago at a par value of Rs50. The shares pay a dividend of Rs6 per year. Similar preferred issues are now yielding 9%.
Equity - Taunton was initially financed by selling 2 million shares of common stock at Rs12. Accumulated retained earnings are now Rs5 million. The stock is currently selling at Rs13.25.

| | |
|---|---|
| Debt | 30.0% |
| Preferred Stock | 5.0 |
| Common Equity | 65.0 |
| | **100.0%** |

P.T.O.

Other Information:-

- Taunton's marginal tax rate is 40%.
- Flotation costs average 12% for common and preferred stock.
- Short-term treasury bills currently yield 7.5%.
- The market is returning 12.5%
- Taunton's beta is 1.2.
- The firm is expected to grow at 6% indefinitely.
- The last annual dividend paid was Rs1.00 per share.
- Taunton expects to earn Rs5 million next year.
- The firm can borrow an additional Rs2 million at rates similar to the market return on its old debt. Beyond that, lenders are expected to demand returns in the neighborhood of 14%.
- Taunton has the following capital budgeting projects under consideration in the coming year. These represent its investment opportunity schedule (IOS).

| Project | IRR | Capital | Cumulative |
|---|---|---|---|

| | | Required | Capital Required |
|---|---|---|---|
| A | 15.0% | Rs3M | Rs3M |
| B | 14.0 | 2M | 5M |
| C | 13.0 | 2M | 7M |
| D | 12.0 | 2M | 9M |
| E | 11.0 | 2M | 11M |

- Calculate the firm's capital structure based on book and market values, and compare with the target capital structure. Is the target structure a reasonable approximation of the market-value-based structure? Is the book structure very far off?
- Calculate the cost of debt based on the market return on the company's existing bonds.
- Calculate the cost of preferred stock based on the market return on the company's existing preferred stock.
- Calculate the cost of retained earnings.
- Estimate the cost of equity raised through the sale of new stock using the dividend growth approach.
- Calculate the WACC
- Where is the first breakpoint in the MCC? Calculate to the nearest Rs.1million.

2. You have been appointed as a financial analyst for the Axis International Company, a profitable retail company. The director of Finance, belonging to the capital budgeting division has asked you to analyze a replacement decision that the company is currently facing. As a financial analyst you need to evaluate the proposed acquisition of a new machine for the company's R&D department. The existing equipment can run for five more years, producing annual revenues of Rs90,000 with cash expenses of Rs40,000. The book value of the existing machine is Rs20, 000, and it is being depreciated at Rs 4,000 a year down to a zero book value. The machine can be sold today to net Rs10,000, or it can be sold in five years to net Rs6,000. The replacement machine will cost Rs60,000, plus an additional Rs25,000 to transport it to the factory and install it. It will generate revenues of Rs80,000, but will have cash

expenses of Rs35,000. It will be depreciated using the straight-line method over five years when it will have a book of Rs15,000 and cash salvage value of Rs25,000. Using the equipment requires an increase in net working of Rs6, 000. The tax rate of the company is 40 percent, and cost of capital is 12 percent. What is the differential after-tax cash flow for this proposal? Determine the NPV, IRR and PI of the proposal. Should the company replace the machine or continue with the existing one?

3. a) 'The trade-off theory predicts that firms maintain an optimum capital structure where the marginal benefit of debt equals the marginal cost. The implication of the trade-off models is that firms have target leverage and they adjust their leverage toward the target over time.' Explain the trade-off theory also discussing the costs of financial distress

b Explain the Altman's Z-score model and Emery's lambda index model for predicting Bankruptcy.

4. ABC Company currently has 15, 00,000 shares of equity issued, with a market price of Rs. 50 per share. It has Rs. 2, 00, 00,000 in 9 percent coupon rate bonds outstanding. ABC is considering a Rs 3, 00, 00,000 expansion programme that it will finance with (i) all equity shares that can be sold to net the firm Rs. 40 per share: (ii) Preference shares sold at par, with a 8% dividend rate; (iii) debentures sold at par, with a 95 coupon rate; or (iv) a combination of half equity shares and half 9 percent coupon-rate debenture (sold at par). The firm is in the 40 percent marginal tax bracket and estimates with a probability of .50 that EBIT will be Rs. 10,00,000, and with a probability of .50 that EBIT will be Rs. 2,00,00,000. (a) Calculate the EPS for each level of EBIT for all our plans. Also calculate the mean or expected EPS for each financing plan. (b) Draw an EBIT-EPS chart showing the possible financing plans. From the chart, estimate the indifference points between all equity shares and each of other three plans. (c) Calculate the exact indifference points. Why is the indifference point between the equity shares and debt financing plan the same as the indifference points between equity shares plan and the combination equity shares and debt financing plan? (d) the cost of equity capital, Ke

is 10 percent if equity shares or debt financing plans are employed. What is the total value of ABC Company under each of the four alternative plans? Using the mean or expected EPS calculated in (a) Assume all earnings are paid out as dividends. (e) Which of the plans should ABC Company select? Why?

5. Modigliani and Miller on the one hand and Gordon and Lintner(GL) on the other have expressed strong views regarding the effect of dividend policy on a firm's cost of capital and value.

a. In essence, what are the MM and GL views regarding the effect of dividend policy on the cost of capital and stock prices?

b. How does the tax preference theory differ from the views of MM and GL.

c. According to the text, which of the theories, if any, has received statistical confirmation from empirical tests?

d. How could MM use the information content, or signaling, hypothesis to counter their opponents' arguments? If you were debating MM, how would you counter them?

6. (a) Calculate the optimum cash strategy under the following alternatives

Minimum cash balance =Rs 10,000
Variance of daily cash flows= 6,250,000
Interest rate=.025 percent per day
Tractions cost for each sale of purchase of securities= Rs 20.

(b) A firm maintains a separate account for cash disbursement. Total disbursement is Rs 1200,000 per year, spread evenly over the month. Administrative and transaction costs of transferring cash to the disbursement account are Rs10 per transfer. Marketable securities yield 12 percent per annum. Determine the size and number of transfers that will minimize the cost of maintaining the special account.

c) To increase sales from their present annual Rs 24 million ABC company may try more liberal credit standard. Currently the firm has an average collection period of 30 days. It believes that with increasingly liberal credit standards, the following will result:

| CREDIT POLICY | | | | |
|---|---|---|---|---|
| | A | B | C | D |
| Increase in sales from previous level (in million) | Rs 2.8 | 1.8 | 1.2 | 0.6 |
| Average collection period for incremental sales(days) | 45 | 60 | 90 | 144 |
| Bas debt losses on incremental sales | 3% | 6% | 10% | 15% |

The price of the product averages Rs 20 per unit, and the variable cost averages Rs 18 per unit.

If the company has a pretax cost of fund of 30% which credit policy should be perused? Why? (Assume a 360- day year)