| Seat No. | : | |
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AC-143

April-2016

4th Year MBA Integrated

ADVANCED FINANCIAL MANAGEMENT

Time: 3 Hours] [Max. Marks: 100

1. Answer the following questions : (any **four**)

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- (1) Discuss the role of Finance Manager in present time in context of manufacturing organizations.
- (2) Describe major components of Financial System.
- (3) The following information is given for A Ltd.

Assets to sales ratio = 0.50

Spontaneous liabilities to sales ratio = 0.20

Profit margin = 6 percent

Dividend payout ratio = 0.1

Previous year's sales = 12,000

What is the maximum sales growth rate that can be financed without raising external funds?

- (4) Mr. G will retire from service in five years. How much should he deposit now to earn an annual income of ₹ 2,40,000 forever beginning from the end of 6 years from now? The deposit earns 12 percent per year.
- (5) You are considering purchasing the equity stock of Empire Corporation. The current price per share is ₹ 180. You expect the dividend a year hence to be Re.
 8.00. You expect the price per share of Empire Corporation stock a year hence to have the following probability distribution.

Price a year hence ₹ 175 180 200

Probability 0.2 0.3 0.5

What will be your expected rate of return?

2. Z Auto Ltd. is considering the manufacture of a new bike, Virat, for which the following information has been gathered.

Virat is expected to have a product life cycle of five years after which it will be withdrawn from the market. The sale from this product is expected to be as follows:

Year 1 2 3 4 5
Sales (₹ in millions) 700 850 1100 1000 800

The capital equipment required for manufacturing Virat costs ₹ 600 million and it will be depreciated at the rate of 25 percent per year as per the WDV method for tax purposes. The expected net salvage value after 5 years is ₹ 100 million.

The working capital requirement for the project is expected to be 10% of sales. Working capital level will be adjusted at the beginning of the year in relation to the sales for the year. At the end of five years, working capital is expected to be liquidated at par, barring an estimated loss of ₹ 5 million on account of bad debt, which of course, will be tax-deductible expense.

The accountant of the firm has provided the following estimates for the cost of Virat:

Raw material cost : 40 percent of sales

Variable manufacturing cost : 20 percent of sales

Fixed annual Operating and Maintenance costs : ₹ 2.5 million

Variable selling expenses : 15 percent of sales

The tax rate for the firm is 30 percent.

Required:

Calculate the NPV of the project if the cost of capital is 18 percent?

OR

Dinesh Associates is considering an investment project which has an estimated life of four years. The cost of project is 400,000 and the possible cash flows are given below: 20

[₹ in'000]

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| Year | 1 | Year | 2 | Year | 3 | Year | 4 |
|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| Cash flow | Prob. |
| 110 | 0.3 | 120 | 0.5 | 130 | 0.2 | 110 | 0.4 |
| 120 | 0.4 | 130 | 0.3 | 140 | 0.3 | 120 | 0.4 |
| 130 | 0.3 | 140 | 0.2 | 150 | 0.5 | 130 | 0.2 |

The cash flows of various years are independent and the risk-free discount rate (post-tax) is 8 percent.

- (a) What is the expected NPV?
- (b) If the NPV is approximately normally distributed, what is the probability that the NPV will be zero or less?
- (c) What is the probability that the profitability index will be greater than 1.1?

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| Debentures 11 percent (2.500,000 debentures ₹ 100 par) ₹ 250 million | Retained earnings ₹ 100 million | Debentures 11 percent (2,500,000 debentures, ₹ 100 par) Term loans, 13 percent | ₹ 250 million ₹ 300 million |
|--|---------------------------------|--|--------------------------------|
| Debentures 11 percent (2.500,000 debentures ₹ 100 par) ₹ 250 million | Retained earnings ₹ 100 million | Debentures 11 percent (2,500,000 debentures, ₹ 100 par) | ₹ 250 million |
| Preference capital, 15 percent (1,000,000 shares, ₹ 100 par) ₹ 100 million | | Equity capital (30 million shares, ₹ 10 par) | ₹ 300 million |

The next expected dividend per share is $\stackrel{?}{\underset{?}{?}}$ 4.00. The dividend per share is expected to grow at the rate of 15 percent. The market price per share is $\stackrel{?}{\underset{?}{?}}$ 80. Preference stock, redeemable after 6 years at par, issued at 5% discount, is currently selling for $\stackrel{?}{\underset{?}{?}}$ 110 per share. Debentures, redeemable after 6 years, are selling for $\stackrel{?}{\underset{?}{?}}$ 102 per debenture which were issued at 5% premium with floatation cost of 2% on face value. The tax rate for the company is 35 percent.

Calculate the average cost of capital using

- (i) Book value proportions, and
- (ii) Market value proportions
- (b) The management of Ajanta Company, subscribing to the net operating income approach, believes that its cost of debt and overall cost of capital will remain at 7 percent and 14 percent, respectively. If the equity shareholders of the firm demand a return of 25 percent, what should be the proportion of debt and equity in the firm's capital structure? Assume that there are no taxes. Also explain NOI approach of capital structure briefly.

OR

- 3. (a) A company's present capital structure contains 40,00,000 equity shares and 1,00,000 preference shares. The firm's current EBIT is ₹ 25 million. Preference shares carry a dividend of ₹ 3 per share. The firm is planning to raise ₹ 40 million of external financing. Two financing alternatives are being considered:
 - (i) Issuing 40,00,000 equity shares for ₹10 each.
 - (ii) Issuing debentures for ₹ 40 million carrying 12 percent interest.

Advise the company about the financing plan. Also calculate EBIT – EPS indifference point. Assume tax rate of 35%.

(b) Explain 'Arbitrage Process' propounded by Modigliani – Millier with example. 10

4. Answer any **two** from a, b and c.

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(a) T Ltd. requires ₹ 45 million in cash for meeting its transaction needs over the next six months, its planning horizon for liquidy decisions. It has the amount in the form of marketable securities. The cash payments will be made evenly over the six month planning period. It earns 6 percent annually yield on its marketable securities. The conversion of marketable securities into cash entails a fixed cost of ₹ 1,500 per transaction. What is the optimal conversion size as per the Baumol model? Also give two differences between Baumol model and Miller – Orr model.

- (b) The present credit terms of I Ltd. are 3/15, net 30. Its sales are ₹ 470 million, its average collection period is 45 days, its variable costs to sales ratio, is 0.85, and its cost of capital is 12 percent. The proportion of sales on which customers currently take discount, is 0.4. I Ltd. is considering relaxing its credit terms to 5/15, net 30. Such a relaxation is expected to increase sales by ₹ 20 million, increase the proportion of discount sales to 0.6, and reduce the ACP to 40 days. Tax rate is 30 percent. What will be the effect of liberalizing the cash discount on residual income?
- (c) N Ltd. requires 15,000 units of a certain item annually. The cost per unit is ₹ 80, the fixed cost per order is ₹ 350, and the inventory carrying cost is ₹ 10 per unit per year. What is EOQ?

The supplier offers quantity discount as follows:

| Order Quantity | Discount Percentage |
|----------------|---------------------|
| 3,000 | 4 |
| 5,000 | 7 |

What should N Ltd. do?

5. (a) As the Financial Manager of National Company you are investigating the acquisition of Regional Company. The following facts are given:

| | National Company | | Regional Company | | |
|--------------------|-------------------------|--------|-------------------------|--------|--|
| Earnings per share | ₹ | 8.00 | ₹ | 3.00 | |
| Dividend per share | ₹ | 5.00 | ₹ | 2.50 | |
| Price per share | ₹ | 86.00 | ₹ | 24.00 | |
| Number of shares | 8,0 | 00,000 | 3,0 | 00,000 | |

Investors currently expect the dividends and earnings of Regional to grow at a steady rate of 6 percent. After acquisition this growth rate would increase to 12 percent without any additional investment.

Required: (a) What is the benefit of this acquisition?

- (b) What is the cost of this acquisition to National Company if it
 - (i) pays ₹ 30 per share cash compensation to Regional Company and
 - (ii) offers two shares for every five shares of Regional Company?
- (b) Explain dividend irrelevance model explained by Modigliani Miller with example.

OR

Describe in detail foreign exchange market and various rates and quotes prevailing in the market giving example.

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