

**END-TERM EXAMINATION**

SECOND SEMESTER (MBA) MAY-JUNE 2013

Paper Code: MS-104/MSP-102

Subject: Financial Management

Time : 3 Hours

Maximum Marks : 60

Note: Attempt any five questions. All questions carry equal marks.

**Question 1**

The following figures (in Rs.) are available for Manvi Industries Ltd.:

Profit for the year (before interest and taxes)	18,00,000
Less : Interest on secured debentures at 15% p.a.	
(debentures issued 3 months after the commencement of the year)	1,12,500
Net profit for the year	16,87,500
Less : Income-tax at 35%	5,90,625
Profit after tax	10,96,875
Number of equity shares of Rs.10 each	1,00,000
Market quotation of an equity share (Rs.)	109.70

The company has accumulated revenue reserves of Rs.12,00,000. The company is examining a project calling for an investment obligation of Rs.10,00,000. This investment is expected to earn the same rate of return as funds already employed. You are informed that a debt-equity ratio (debt divided by debt plus equity) higher than 60% will cause the price-earnings ratio to come down by 25% and the interest rate on additional borrowings will cost the company 300 basis points more than on their current borrowings on secured debentures. Advise the company on the probable price of the equity share, if—

- (i) the additional investments were to be raised by way of loans; or  
(ii) the additional investments were to be raised by way of equity.

(12)

$$\frac{E(1-G) = P}{K_e - G} = \frac{P}{K_e - G}$$

**Question 2**

IRR does not change with the change in the cost of capital and hence can be regarded as a superior criterion to NPV. Do you agree? Substantiate your answer listing the various virtues and limitations of IRR. State the circumstances when a conflict between IRR and NPV arise.

(12)

**Question 3**

(a) Compute the degree of financial leverage (DFL) for CMS Ltd. (Tax Rate 35%):-

Total sales	=	Rs.14,00,000
Contribution ratio	=	25%
Fixed expenses	=	Rs. 1,50,000
Outstanding bank loan	=	Rs. 4,00,000 @ 12.50%
Preference Share Capital	=	Rs. 2,00,000 @ 15.00%

(b) Compute the earnings per share for Martin Ltd:-

Return on investment	=	12%
Number of outstanding equity shares	=	1,00,000
Net worth	=	Rs. 25 lakhs
Total debt	=	Rs. 40 lakhs
Average cost of debt	=	9%
Applicable tax rate	=	35%

(c) Compute the present market price per share of Tarun Capital Services Ltd. from the following data:-

Current dividend	=	Rs.2.00 per share
Constant rate of growth in dividends	=	5%
Expected return from the market index	=	12%
Beta of the stock	=	1.50
Risk free rate of return	=	6%

(4+4+4)

Explain Capital Asset Pricing Model (CAPM). How security market line is derived from Line? Do you think that CAPM is relevant in present context?

### Question 5

Two companies P Ltd. and Q Ltd. belong to the equivalent risk group. The two companies in every respect except that Q Ltd. is levered, while P Ltd. is unlevered. The outstanding debt of the levered company is Rs. 6,00,000 in 10% debentures. The other information of the companies is as follows:

	P Ltd.	Q Ltd.
Net operating income (EBIT) (Rs.)	1,50,000	1,50,000
Interest (Rs.)	—	60,000
Earnings to equity-holders (Rs.)	1,50,000	90,000
Equity capitalization rate, $k_e$	0.15	0.20
Market value of equity (Rs.)	10,00,000	4,50,000
Market value of debt (Rs.)	—	6,00,000
Total value of firm (Rs.)	10,00,000	10,50,000
Overall capitalization rate, $k_o = EBIT/V$	15.0%	14.3%
Debt-equity ratio	0	1.33

An investor owns 5% equity shares of Q Ltd. Show the arbitrage process and the amount which could reduce his outlay through use of the process. Is there any limit to the process?

### Question 6

- A company has a total investment of Rs. 5,00,000 in assets, and 50,000 outstanding shares at Rs.10 per share (par value). It earns a rate of 15% on its investment, and has retained 50% of the earnings. If the appropriate discount rate of the firm is 10%, determine the price of its share using Gordon's model. What shall happen to the price of the share, if the firm has a payout of 80% or 20%?
- List the various determinants of dividend policy of corporate enterprises in an Indian context.

### Question 7

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- Ayush Metals Ltd. issued fully convertible debentures (FCD) with a face value of Rs.1000. The coupon rate is 9% and the interest is payable half yearly over a period of three years. After three years, each bond will be converted into 10 equity shares of face value Rs.10 per share, expected to fetch a dividend of Rs.1.00 per share every year. Presently, the yield on these securities is 5% per annum. The bondholders of the company need 3% more as the risk premium while the expected return to the equity shareholders will go up by an additional risk premium of 4%. Compute the intrinsic value of these FCDs.
- In order to buy a car worth Rs. 5,00,000, Nitya Clothes Ltd. is planning to take loan of Rs. 5,00,000 from a financial institution. The loan is to be repaid along with interest in equal monthly installments of Rs. 9,000 within a period of 5 years, payable at the end of every month. The margin money of Rs. 1,00,000 is to be borrowed from a local moneylender that is to be repaid with interest at a rate of 20% by the end of the year. What is the implicit cost of borrowing?
- Rins Ltd. is critically considering expanding its operations and needs Rs.500 lakhs for this purpose. Its capital structure is in the proportions of Equity capital 40%, Preference capital 10% and debt capital 50%. If the company actually invested an amount of Rs.600 lakh what will be the marginal cost of capital of new financing?

(d) Following data relates to financing of XYZ project of MBE Ltd.:

Description	Plan A	Plan B	Cost
Equity shares (Rs. 10 each)	Rs. 40 Lakhs	Rs. 50 Lakhs	20%
Debentures	Rs. 10 Lakhs	Rs. 20 Lakhs	10%
Preference shares	Rs. 50 Lakhs	Rs. 30 Lakhs	11%

Determine indifference point for the financial plans assuming a 35% tax rate.

(2+2+3+5=12)

Question 8

Current assets and current liabilities of Rhythm Steels Ltd. are Rs.36 lakhs and Rs.23 lakhs respectively. If the company purchased raw materials worth of Rs.2.00 lakhs on credit, took a long-term loan of Rs.25 lakh from a bank and purchased capital equipment, and converted preferential shares (face value= Rs.7 lakhs) into equity, what would be the new net working capital(NWC)?

(b) Eagle Tyres Ltd. is an existing tyre and tube manufacturing company proposing to expand its operations and increase its manufacturing capacity. Details of the working capital requirements of the company for the first year of operations after expansion are as follows:

Items	Rs. in Lacs	Items	Rs. in Lacs
Raw Materials	480.00	Finished goods	236.00
Sundry creditors	600.00	Consumables	24.00
Receivables	686.00	Work-in-process	65.00

Other current assets (leaving cash) 100.00

The margin money requirement is 25% of the working capital gap. Existing margin money and bank finance for working capital requirement amount to Rs. 223.00 lacs and Rs. 660.00 lacs respectively. Determine the existing working capital with the company prior to expansion and the increase in working capital required given that the company's existing creditors were worth Rs. 75.00 lacs.

(c) Jai Electricals Ltd. needs 60,000 pieces of aluminum bars to produce switchgears. The price of each bar is Rs.100, cost of placing an order is Rs.1200 and the carrying cost is 1%. The economic order quantity based on the EOQ model is 12,000 units. Recently, a supplier has offered discounts of 3% against an order size of 20,000 units or more. What will be the incremental benefit to the company, if such discount is availed?

(5+5+2)

Question 9

(a) Length of operating cycle is the major determinant of the working capital needs of the firm. Comment.

(b) Explain the relationship between net working capital, technical solvency and risk.

(8+4)

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Present Value Factor(r,n)

r,n	13%	14%	15%	16%	17%	18%	19%	20%	21%	22%	23%
1	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813
2	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	0.683	0.672	0.661
3	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	0.564	0.551	0.537
4	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	0.467	0.451	0.437
5	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	0.386	0.370	0.355
6	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	0.319	0.303	0.289
7	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	0.263	0.249	0.235
8	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	0.218	0.204	0.191
9	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	0.180	0.167	0.155
10	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	0.149	0.137	0.126

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