

OR iii. Between equity shares and debentures which is profitable for raising additional long-term capital for a manufacturing company and why? 7

Q.4 i. Explain the determinants of cost of capital.
ii. The following is the capital structure of Sanya Ltd. as on 31st Dec 2014 7

| | |
|---|--------------------|
| Equity Shares Capital- 5 000 shares of Rs. 100 each | 5,00,000/- |
| 9% Preference Share | 2,00,000/- |
| 10% Debentures | 3,00,000/- |
| Total | 10,00,000/- |

The equity shares of the Sanya Ltd. are quoted at Rs. 102/- and the company is expected to declare a dividend of Rs 9/- Per Share for the next year. Sanya Ltd. has registered a dividend growth rate of 5% which is expected to be mentioned.

Assuming the tax rate applicable for the company is 50%. Calculate the weighted average cost of capital.

OR iii. The following is the capital structure of Manmohan Industries Ltd. as on 31st Dec 2016- 7

| | |
|--|--------------------|
| Equity shares capital- 20 000 shares of Rs. 100 each | 20,00,000/- |
| 10% Preference share of Rs 100 each | 8,00,000/- |
| 12% Debentures | 12,00,000/- |
| Total | 40,00,000/- |

The market price of equity shares of the Manmohan Industries Ltd. are quoted at Rs. 110/- and the company is expected that a dividend of Rs 10/- per share would be declared after 1 year. Manmohan Industries Ltd. has registered a dividend growth rate of 6%.

(a) If the company is in the 50% tax bracket, compute the WACC.
(b) Assuming that in order to finance an expansion plan, the company intends to borrow a fund of Rs. 20 lakhs bearing 14 % rate of interest, what will be the company's revised Weighted Average Cost of Capital? This financing decision is expected to increase dividend from Rs 10 to Rs 12 per share. However the market price of equity share is expected to decline from Rs 110/- to 105/- per share.

Total No. of Questions: 6

Total No. of Printed Pages:6

Enrollment No.....



Knowledge is Power

Faculty of Management Studies
End Sem Examination May-2024

MS5CO23 Corporate Finance

Programme: MBA

Branch/Specialisation: Management

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. Financial management is mainly concerned with- 1
 (a) Arrangement of funds
 (b) All aspects of acquiring and utilizing financial resource for forms activities
 (c) Efficient management of every business
 (d) None of these
- ii. Money has time value because: (select incorrect sentence) 1
 (a) Individuals prefer future consumption to present consumption
 (b) Money today is more certain than money tomorrow
 (c) Money today is worth more than money tomorrow in terms of purchasing power
 (d) There is a possibility of earning risk free returns on money invested today
- iii. Which one is true about 'source of finance'. 1
 (a) Equity shares are entitled to dividend at a fix rate
 (b) Preference shares are entitled to dividend in all cases irrespective of company's profits
 (c) Raising funds through debentures is cheaper as compared to raising funds through shares
 (d) Retained earnings as a source of finance is most useful for a new company

1

1

1

1

[2]

- iv. Which one is false?

 - (a) It is risky to have both operating leverage and financial leverage at a high level
 - (b) Financial leverage indicates disproportionate change in taxable income as a result of change in operating income
 - (c) In ideal situation would be to keep operating leverage low and financial leverage high
 - (d) Operating leverage shows the effect on residual net income of long term funds wearing fix charges

v. A ltd. Issues Rs.40000, 8% debentures at par. Tax rate is 40%. What will be the cost of debt?

 - (a) 8%
 - (b) 3.2%
 - (c) 4.8%
 - (d) 2.2%

vi. WACC in cost of capital means-

 - (a) Weighted Annual Cost of Capital
 - (b) Wastage Annual Commercial Cost
 - (c) Weighted Average Cost of Capital
 - (d) All of these

vii. Which of the following is not true about capital budgeting?

 - (a) Capital budgeting decisions have an influence on the future stability of an organisation
 - (b) Capital budgeting decisions include investments to expand the business
 - (c) Capital budgeting decisions are of an irreversible nature
 - (d) Sunk cost is a part of Capital Budgeting

viii. Which of the following can be a criterion for the acceptance of a project?

 - (a) The profitability index should be greater than unity
 - (b) The internal rate of return should be greater than the cost of capital
 - (c) The net present value should be greater than zero
 - (d) All of these

ix. Gross working capital is-

 - (a) $WC=CA$
 - (b) $WC=CA-CL$
 - (c) $WC=CL$
 - (d) None of these

[3]

- x. Select the false sentence.

 - Gross working capital refers to the capital invested in the total Assets of an enterprise
 - Networking capital is the excess of current assets over current liabilities
 - Greater the size of the business unit larger will be the requirements of working capital
 - Working capital is also known as revolving or circulating capital

i. Discuss the concept of time value of money?

ii. Explain functions of financial manager in achieving organizational goals.

iii. Calculate present value of the following cash flow assuming a discount rate of 10%.

| Year | Cash Flow |
|------|-----------|
| 1 | Rs. 5,000 |
| 2 | 10,000 |
| 3 | 10,000 |
| 4 | 3,000 |
| 5 | 2,000 |

iv. “Maximisation of profit is regarded as the proper objective of investment decision, but it is not the exclusive as maximising shareholders wealth” comment.

i. Differentiate between operating and financial leverage. (any 3 points).

ii. From the following figures related to four companies: (in Rs. Lakhs)

| | M Ltd | N Ltd. | O Ltd. | P Ltd. |
|------------------------|---------|---------|---------|---------|
| Selling Price per Unit | 15 | 20 | 25 | 30 |
| Variable cost per unit | 10 | 15 | 20 | 25 |
| Quantity (Nos) | 20 ,000 | 25 ,000 | 30 ,000 | 40 ,000 |
| Fixed Cost | 30 ,000 | 40 ,000 | 50 ,000 | 60 ,000 |
| Interest | 15 ,000 | 25 ,000 | 35 ,000 | 40 ,000 |
| Tax Rate | 40 | 40 | 40 | 40 |
| No. Of Equity Shares | 5 ,000 | 9 ,000 | 10 ,000 | 12 ,000 |

Calculate:

 - Operating leverage
 - Financial leverage
 - Combined leverage

[5]

- Q.5 i. Write a brief note on NPV Vs IRR.

ii. XYZ Ltd. Co. wants to install a new machine in the place of an existing old one which has become obsolete. The company made extensive enquiries and from the replies received, short-listed two offers. The two models differ in cost, output and anticipated revenue. The estimated life of both the machine is five years. There will be only negligible salvage value at the end of the fifth year. Further details are as follows:

(Rs. Lakhs)

(Rs. Lakhs)

| Machine | Cost | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------|------|--------|--------|--------|--------|--------|
| A | 25 | - | 5 | 20 | 14 | 6 |
| B | 40 | 10 | 14 | 16 | 17 | 8 |

The company's cost of capital is 16%. You are required to make an appraisal of the two offers and advise the firm by using the following:

- (a) Payback Period
 - (b) Net Present Value
 - (c) Profitability Index
 - (d) Internal Rate of Return

OR iii. From the following information calculates the net present value of the two projects and suggests which of the two projects should be accepted assuming a discount rate of 10%.

| | Project X | Project Y |
|--------------------|------------------|------------------|
| Initial Investment | Rs. 20 ,000 | Rs. 30 ,000 |
| Estimated Life | 5 Years | 5 Years |
| Scrap Value | Rs. 1 ,000/- | Rs. 2 ,000 |

The profit before depreciation and after tax

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|-----------|--------|--------|--------|--------|--------|
| Project X | 5,000 | 10,000 | 10,000 | 3,000 | 2,000 |
| Project Y | 20,000 | 10,000 | 5,000 | 3,000 | 2,000 |

2
8

- Q.6** Attempt any two:

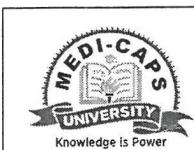
i. From the following details you are required to make an assessment of 5
the average amount of working capital requirement of A Ltd.

| Items | Average Period of Credit | Estimated for the first year (Rs.) |
|--|--------------------------|------------------------------------|
| Purchase of material | 6 Weeks | 26,00,000/- |
| Wages | 1 ½ Weeks | 19,50,000/- |
| Overheads: | | |
| Rent, rates etc. | 6 Months | 1,00,000/- |
| Salaries | 1 Months | 8,00,000/- |
| Other overheads | 2 Months | 7,50,000/- |
| Sales (cash) | - | 2,00,000/- |
| Sales credit | 2 Months | 60,00,000/- |
| Average amount of stock and work-in-progress | - | 4,00,000/- |
| Average amount of undrawn profit | - | 3,00,000/- |

It is assumed that all expenses and income were made at even rate for the year.

- ii.
 - (a) Explain working capital with its nature and need.
 - (b) Elaborate determinants of working capital in detail.
 - iii. Write short note any two:
 - (a) Commercial Paper
 - (b) Trade credits
 - (c) Bank Finance

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Faculty of Management Studies

End Sem Examination May-2024

Corporate Finance (T) - MS5CO23 (T)

Programme: MBA

Branch/Specialisation:

Note: The Paper Setter should provide the answer wise splitting of the marks in the scheme below.

| | | | |
|-----|-------|--|---|
| Q.1 | i) | a) all aspects of acquiring a utilizing financial resource for forms activities | 1 |
| | ii) | a) Individuals prefer future consumption to present consumption | 1 |
| | iii) | b) Raising funds through debentures is cheaper as compared to raising funds through shares | 1 |
| | iv) | c) Operating leverage shows the effect on residual net income of long term funds wearing fix charges | 1 |
| | v) | c) 4.8% | 1 |
| | vi) | c) Weighted Average Cost of Capital | 1 |
| | vii) | Sunk cost is a part of Capital Budgeting | 1 |
| | viii) | All of the above | 1 |
| | ix) | WC=CA | 1 |
| | x) | Gross working capital refers to the capital invested in the total Assets of an enterprise | 1 |
| | | | |
| Q.2 | i. | | |
| | ii. | | |
| | iii. | | |
| OR | iv. | | |

| | | | |
|-----|------|----------------|--|
| | | | |
| Q.3 | i. | | |
| | ii. | Ravi M Kishore | |
| OR | iii. | | |
| | | | |
| Q.4 | i. | | |
| | ii. | | |
| OR | iii. | | |
| | | | |
| Q.5 | i. | | |
| | ii. | | |
| OR | iii. | | |
| | | | |
| Q.6 | | | |
| | i. | | |
| | ii. | | |
| | iii. | | |

MBA CP Q.3 (ii)

Solution:

Comparative Statement

(Rs. in lacs)

| Particulars | P | Q | R | S |
|---|------|------|------|-------|
| Selling Value $20,000 \times 15$ | 3.00 | 5.00 | 7.50 | 12.00 |
| Less : Variable Cost $20,000 \times 10$ | 2.00 | 3.75 | 6.00 | 10.00 |
| Contribution | 1.00 | 1.25 | 1.50 | 2.00 |
| Less : Fixed Cost | 0.30 | 0.40 | 0.50 | 0.60 |
| EBIT | 0.70 | 0.85 | 1.00 | 1.40 |
| Less : Interest | 0.15 | 0.25 | 0.35 | 0.40 |
| PBT | 0.55 | 0.60 | 0.65 | 1.00 |
| Less : Tax at 40% | 0.22 | 0.24 | 0.26 | 0.40 |
| PAT | 0.33 | 0.36 | 0.39 | 0.60 |

| | | | | |
|---|-------------------|-------------------|-------------------|-------------------|
| (i) EBIT | 0.70 | 0.85 | 1.00 | 1.40 |
| (ii) EPS (Rs.) : | | | | |
| (PAT/No. of Shares) | 33,000 5,000 | 36,000 9,000 | 39,000 10,000 | 60,000 12,000 |
| | 6.60 | 4.00 | 3.90 | 5.00 |
| (iii) Operating Leverage = Contribution/EBIT | 1.00/0.70 1.43 | 1.25/0.85 1.47 | 1.50/1.00 1.50 | 2.00/1.40 1.43 |
| (iv) Financial Leverage = EBIT/PBT | 0.70/0.55 1.27 | 0.85/0.60 1.42 | 1.00/0.65 1.54 | 1.40/1.00 1.40 |

~~Q(i)~~ (a) assume cash inflow. ①

(a) Payback Period

| A | B | Cumulative | Years |
|----|----|------------|--------|
| 1 | 0 | | |
| 5 | 5 | | |
| 20 | 25 | → | 3 yrs. |
| 14 | | | |
| 6 | | | |

b. Cumulative

| | |
|----|----|
| 10 | 10 |
| 14 | 24 |
| 16 | 40 |
| 17 | 47 |
| 8 | |

(3 yrs) + 1 (~~17~~)

3 yrs + 1 (~~17~~)

(b) NPV

q) ~~DF~~ @ 16%

| | | |
|---|----|------|
| 1 | - | .862 |
| 2 | 5 | .743 |
| 3 | 20 | .641 |
| 4 | 14 | .552 |
| 5 | 6 | .476 |

DCF

| | |
|---|-------|
| 0 | 3.71 |
| 1 | 12.82 |
| 2 | 7.72 |
| 3 | 2.85 |
| 4 | |
| 5 | |

b DCF

| | |
|----|-------|
| 10 | 8.62 |
| 14 | 10.4 |
| 16 | 10.25 |
| 17 | 9.384 |
| 8 | 3.808 |

$\frac{42.46}{40} = \frac{\Sigma DCF}{\Sigma OF}$

$\underline{2.46} = NPV$

$$\textcircled{a} = \frac{16\% + (1.818)}{2.1 + (1.2818)} \quad (3)$$

$$16\% + \frac{2.1}{2.1 + (1.818)} \quad (10 - 16)$$

$$16\% + \frac{2.1}{1.282} \quad (4\%)$$

$$16\% + (1.64) \times 0.04$$

$$16\% + 6.56\%$$

$$\Rightarrow 22.56\%$$

$$\textcircled{b} = 16\% + \frac{2.46}{2.46 + (1.296)} \quad (4\%)$$

$$\Rightarrow 16\% + \frac{2.46}{1.164} \quad (4\%)$$

$$\Rightarrow 16\% + (2.11 \times 4\%) \Rightarrow 16\% + 8.45\% \Rightarrow 24.45\%$$

Q 5(iii)

X
5 m
70 m
10 cm
3 cm
2 cm

2109.
20 cm
10 cm
5 m
3 cm
2 cm
2000

Project X

| | |
|-------|---------|
| • 909 | 18180 |
| • 826 | 8260 |
| • 751 | 3755 |
| • 683 | 2049 |
| • 621 | 1242 |
| • 621 | 1242 |
| | 34728 |
| | - 30000 |

NPV 4728

2m00

Project Y

Q. 5(iii)

| Yr | PBDA Tax | @ 10% | Dcf |
|----|----------|-------|----------|
| 1 | 5000 | . 909 | 4545 |
| 2 | 10000 | . 826 | 8260 |
| 3 | 10000 | . 751 | 7510 |
| 4 | 3000 | . 683 | 2049 |
| 5 | 2000 | . 621 | 1242 |
| 5 | 1000 | . 621 | 621 |
| | | | 24227 |
| | | | -20000 |
| | | | NPV 4227 |

Q. 6 (i)

(iv) Advance payment of sundry expenses = $\frac{8,000 \times 1}{4}$

Total Investment in Current Assets

(B) Current Liabilities:

(i) Wages = $\left(\frac{2,60,000 \times 3}{104} \right)$

(ii) Stock/material, etc. = $\left(\frac{48,000 \times 3}{24} \right)$

(iii) Rent, Royalties, etc. = $\left(\frac{10,000 \times 6}{12} \right)$

(iv) Clerical Staff = $\left(\frac{62,400 \times 1}{24} \right)$

(v) Manager = $\left(\frac{4,800 \times 1}{24} \right)$

(vi) Miscellaneous expenses = $\left(\frac{48,000 \times 3}{24} \right)$

Total estimate of current liabilities

(C) Net Working Capital

(i) Current assets - Current liabilities (A - B)

(ii) Add 10% Contingency allowance

Average amount of working capital required

Note: (i) Since average amount of stock is readily given, no further calculation is required.
stock.

(ii) Un-drawn profit is not considered for calculating working capital.

Q.6(i) MBA CF

X & Y Co. is desirous to purchase a business and has consulted you, and one point on which you are asked to advise them is the average amount of working capital which will be required in the first year's working.

You are given the following estimates and are instructed to add 10% to your computed figure to allow for contingencies :

| | Amount for the year (Rs.) |
|--|---------------------------|
| (i) <u>Average amount backed up for stocks</u> :- | |
| Stocks of Finished Product | 5,000 |
| Stock of Stores, Material, etc. | 8,000 |
| (ii) Average credit given : | |
| Inland Sales | 6 weeks credit |
| Export Sales | 1.5 weeks credit |
| (iii) Average time lag in payment of wages and other outgoings : | |
| Wages | 1.5 weeks |
| Stocks, materials, etc. | 1.5 months |
| Rent, Royalties, etc. | 6 months |
| Clerical Staff | 0.5 months |
| Manager | 0.5 months |
| Miscellaneous expenses | 1.5 months |
| (iv) Payment in advance : | |
| Sundry expenses (Paid quarterly in advance) | 8,000 |
| Undrawn profits on the average throughout the year | 11,000 |

Set-up your calculations for the average amount of working capital required.

Solution:

Statement to determine Net Working Capital for X & Y Co.

| | Amount (Rs.) |
|---|--------------|
| (A) Current Assets : | |
| (i) Stock of finished product | 5,000 |
| (ii) Stock of stores, material, etc. | 8,000 |
| (iii) Debtors : Inland Sales 6 weeks = $\frac{\text{Credit Sales}}{\text{Debtors turnover}} = \frac{3,12,000 \times 6}{52}$ | 36,000 |
| Export sales 1.5 weeks = $\frac{78,000 \times 3}{104}$ | 2,250 |

Q4 - III MBACF

Calculation of WACC

| Sources | Amount | Weight | Rate | COC |
|------------------------|-----------|--------|------|-------|
| Equity share | 20,00,000 | 20/40 | 15.1 | 7.55 |
| 10% preferential share | 8,00,000 | 8/40 | 10 | 2 |
| 12% Debentures | 12,00,000 | 12/40 | 6 | 1.8 |
| | 40,00,000 | | WACC | 11.35 |

Existing WACC = 11.35%

(b) New k_e will be

$$k_e = \frac{\text{Div}}{\text{MP}} + g$$

assuming the growth rate is remain same

$$k_e = \frac{12}{105} + 0.06 = 0.174 \text{ or } 17.4\%$$

Calculation of WACC-

| Sources | Amount | Weight | Rate (%) | COC (%) |
|------------------------|-----------|--------|----------|---------|
| Equity share | 20,00,000 | 20/60 | 17.4 | 5.80 |
| 10% Preferential share | 8,00,000 | 8/60 | 10 | 1.33 |
| 12% Debt | 12,00,000 | 12/60 | 6 | 1.20 |
| 14% Debt | 20,00,000 | 20/60 | 7 | 2.33 |
| | 60,00,000 | | WACC | 10.66% |

The revised WACC is 10.66%

Comment: Since the WACC is reduced by financing decision, it may be recommended.

Q.4(ii) MBA cf

Calculation of Cost of Equity

$$K_e = \frac{D_1}{P_0} + g = \frac{9}{102} + 0.05$$

$$= 0.088 + 0.05 = 0.138 \text{ or } 13.8\%$$

$$K_d = K_e (1 - t)$$

$$= 0.10 (1 - 0.5) = 0.05 \text{ or } 5\%$$

Calculation of WACC

| Sources | Amount | Weight | Cost% |
|--------------------|------------------|--------|-------|
| Equity Shares | 5,00,000 | 5/10 | 13.8 |
| Preferences Shares | 2,00,000 | 2/10 | 9 |
| Debentures | 3,00,000 | 3/10 | 5 |
| | 10,00,000 | | |

The WACC is 10.2%.

If the company decides to raise Rs. 5,00,000 by the issue of 12% Ic share is expected to go down to Rs. 96, then the WACC may be calculated

Calculation of Cost of Equity