

CBCS SCHEME

20MBA22



Second Semester MBA Degree Examination, July/August 2022 Financial Management

Max. Marks:100

- Note: 1. Answer any FOUR full questions from Q.No.1 to Q.No.7.
2. Question No. 8 is compulsory.
3. Use of Time Value Table is permitted.**

- 1 a. Define Financial Management. (03 Marks)
- b. Explain the objectives of Financial Management. (07 Marks)
- c. Write a note on long term sources of funds, which can be raised within India. (10 Marks)

- 2 a. Name various kinds of Financial Derivatives. (03 Marks)
- b. Suppose you deposit Rs.1000 today in a bank which pays 10% interest compounded annually. How much will the deposit grow after 8 years and 12 years. (07 Marks)
- c. Explain the various factors influencing working capital. (10 Marks)

- 3 a. What is Time Value of Money? (03 Marks)
- b. Phoenix company borrows Rs.5,00,000 at an interest rate of 14%. The loan is to be repaid in 4 equal installments payable at the end of next 4 years. Prepare loan amortization schedule. (07 Marks)
- c. GHCL Ltd. has on its books the following amounts and specific costs of each type of capital.

Type of capital	Book Value (Rs.)	Market Value (Rs.)	Specific Cost (%)
Debt	4,00,000	3,80,000	5
Preference shares	1,00,000	1,10,000	8
Equity shares	6,00,000	12,00,000	15
Retained earnings	2,00,000	(equity + retained earnings)	13
Total	13,00,000	16,90,000	

Determine the weighted Average Cost of capital using:

- (i) Book Value Weights
 - (ii) Market Value Weights (10 Marks)
- 4 a. Name any three assumptions of CAPM. (03 Marks)
 - b. The following is the Balance sheet of Delta Corporation as on 31.03.2022.

Liabilities	Rs.	Assets	Rs.
Equity capital Rs.10 per share	1,80,000	Fixed Assets	4,50,000
10% Debentures	2,40,000	Current Assets	1,50,000
Retained earnings	60,000		
Current liability	1,20,000		
	6,00,000		6,00,000

The company's total assets turnover is 2.5 times. The fixed operating costs are 2 lakh, variable operating cost is 40%. Income tax is 50%. Calculate the :

- (i) Operating Leverage
- (ii) Financial Leverage
- (iii) Combined Leverage (07 Marks)

- c. Penta Four Ltd has currently in its capital structure equity shares of 15,000 of Rs.100 each. The management of the company is planning to raise another Rs.25,00,000 to finance a major expansion and is considering three alternative methods of financing.
- To issue 25,000 8% debentures of Rs.100 each.
 - To issue 25,000 equity shares of Rs.100 each
 - To issue 25,000 8% preference shares of Rs.100 each
- The company's expected earnings before interest and tax will be Rs.8,00,000. Assuming Corporate tax rate of 50%, determine the Earnings Per Share (EPS) in each alternative and comment which alternative is best and why? (10 Marks)
- 5 a. Consider the following information for debentures of Multiplex Ltd. Face value Rs.1000, coupon rate 12%, the remaining period to maturity 4 years, current market price Rs.1040. Calculate Yield to Maturity (YTM). (03 Marks)
- b. Explain the sources of working capital financing. (07 Marks)
- c. Explain the factors influencing dividend policy of a firm. (10 Marks)
- 6 a. What is Behavioural Finance? (03 Marks)
- b. Explain the main functions of financial management. (07 Marks)
- c. From the following information relating to Ambuja Ltd, compute payback period and discounted payback period.
Cost of the project – 50,000
- | Year | PAT | PV Factor @ 10% |
|------|-------|-----------------|
| 1 | 5000 | 0.909 |
| 2 | 20000 | 0.826 |
| 3 | 30000 | 0.751 |
| 4 | 30000 | 0.683 |
| 5 | 10000 | 0.621 |
- (10 Marks)
- 7 a. What is optimum capital structure? (03 Marks)
- b. Explain the components of Indian Financial System. (07 Marks)
- c. The following annual figures relating to Exide Co.
- | Particulars | Rs. |
|--|-----------|
| Sales (at two month's credit) | 36,00,000 |
| Materials consumed (suppliers extend two months credit) | 9,00,000 |
| Wages paid (monthly in arrear) | 7,20,000 |
| Manufacturing expenses outstanding at the end of the year (cash expenses paid one month in arrear) | 80,000 |
| Total administrative expenses, paid as above | 2,40,000 |
| Sales promotion expenses, paid quarterly in advance | 1,20,000 |
- The company sells its products at a gross profit of 25% counting depreciation as part of the cost of production. It keeps one month's stock each of raw materials and finished goods and a cash balance of Rs.1,00,000.
- Assuming a 20% safety margin, calculate the working capital requirements of the company on cash cost basis. Ignore work-in-process. (10 Marks)

8 CASE STUDY (compulsory)

Sensera Ltd has to select one of the two alternative projects whose particulars are given below:

Particulars	Project A	Project B
Initial outlay	118720	100670
Net cash flow		
1	1,00,000	10,000
2	20,000	10,000
3	10,000	20,000
4	10,000	1,00,000

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The company's cost of capital is 8%. Compute the NPV and IRR for each project and comment on the results. The P.V. factors of Re.1 received at the end of the year at different rates:

Year	8%	10%	12%	14%
1	0.926	0.909	0.893	0.877
2	0.857	0.826	0.797	0.769
3	0.794	0.751	0.712	0.675
4	0.735	0.683	0.636	0.592

(20 Marks)

Scheme & Solutions

Subject Title: Financial Management

Subject Code: 20 M/BA 22

Question Number	Solution	Marks Allocated
1 a	<p>According to Howard & option " Financial Management is an application of general managerial principles to the area of financial decision-making". Financial Management is Managerial activity which is concerned with the Planning and Controlling of Firm's Financial resources.</p>	03 Marks
1 b	<p>Objectives of Financial management.</p> <p>→ <u>profit maximisation</u> - profit maximisation imply that the firm should select assets, projects & decisions which are profitable and reject those which are not.</p> <p>→ <u>wealth maximisation</u> - also known as value maximisation is maximising the wealth of shareholders through distribution of good dividend & taking appropriate decisions to maximise market price of Equity shares in stock market.</p>	07
1 c.	<p>Long term sources of fund include;</p> <p>→ Share Capital or Equity share</p>	

10a	<ul style="list-style-type: none"> - Preference Shares - Retained Earnings - Debentures / Bonds - Loans from Banks & Financial Institutions - Venture Capital Funding - Asset Securitisation - International Financing etc. 	10
2a	<p>Financial derivatives includes Forwards, Futures, options & Swaps</p>	03
2b	<p>PV = 1000 $r = 10\%$ $n = 8\text{ yrs}, 12\text{ yrs}$</p> <p>if $n = 8\text{ yrs}$</p> $FV_n = PV(1+r)^n$ $= 1000(1+0.10)^8 = \text{€}2143.6$ <p>if $n = 12\text{ yrs}$</p> $FV_n = 1000(1+0.10)^{12}$ $= \text{€}3138.84$	07
2c	<p>Factors influencing Working Capital are</p> <ul style="list-style-type: none"> - Nature of the Business - Scale of operations - Growth & Expansion - length of Manufacturing Process - Production policies 	10

- Operating efficiency
- Credit policy etc.

3a A rupee that is receivable today is more valuable than a rupee receivable in future. The amount that is received earlier period can be reinvested and it can earn an additional amount

03

3b Given - $PV_A = 500,000$ $r = 14\%$ $n = 4$ yrs

Annuity $A = ?$

$$PV_A = A (PVIFA_{r,n})$$

$$500,000 = A (PVIFA_{14\%, 4})$$

$$500,000 = A (2.9137)$$

$$A = \frac{500,000}{2.9137} = \underline{\underline{1,71,603}}$$

07

Loan Amortization Schedule

Year	Beginning Amount	Annual Installment	Interest (14%)	Principal repaid	Remaining Balance
1	5,00,000	1,71,603	70,000	1,01,603	3,98,397
2	3,98,397	1,71,603	55,716	1,15,887	2,82,510
3	2,82,510	1,71,603	39,560	1,32,043	1,50,467
4	1,50,467	1,71,603	21,074	1,50,529	-2

30 (i) Determination of WACC using Book value weights

Source of Capital	Amount of Book value	Weights	Specific Cost	Weighted Cost
Debt	400.000	0.3077	5	1.5385
Preference	100.000	0.0769	8	0.6152
Equity	600.000	0.4615	15	6.923
Ret Earnings	200.000	0.1539	13	2.00
	<u>1300.000</u>		WACC	<u>10.4585</u>

10 Marks

$$\text{WACC} = \frac{10.4585}{(\text{Book value})} \approx \underline{\underline{10.46\%}}$$

(ii) Determination of WACC using market Value Weights

Steps - it is to find the proportion of Equity and retained Earnings with respect to Market.

TYPE	Book value	Combined market value	Proportionate Market value
Equity	600.000	1200.000	$\frac{600}{1200} \times 1200$ = 900.000
Retained Earnings	200.000		$\frac{200}{1200} \times 1200$ = 300.000
Total	800.000	1200.000	1200.000

Source of Capital	Market Value	Weights	Specific Cost	Total Cost
Debt	380.000	0.22249	5	1.1242
Preference	110.000	0.0651	8	0.5207
Equity	900.000	0.5325	15	7.99
Retained Earnings	300.000	0.1775	13	2.3076
	16,90.000		WACC	11.94

WACC (Market Weight) = 11.94%

4a. Assumptions of CAPM

03

- Individuals are risk-averse
- Investors can borrow and lend freely at risk-free rate of interest.
- Market is perfect - NO ~~tax~~ transaction cost
- Homogeneous expectations.
- Quantity of risky securities in market is given

4b. Computation of Sales in k.

$$\text{Asset turnover} = \frac{\text{Sales}}{\text{Assets}}$$

$$2.5 = \frac{\text{Assets}}{600000}$$

$$\text{Assets} = 2.5 \times 600,000 = 1,500,000 \text{ k.}$$

43

92

Particulars	Rs
Sales	1500.000
(-) Variable Cost (1500.000 x 0.4)	600.000
Contribution	900.000
(-) Fixed Cost	200.000
Earnings before interest and tax (EBIT)	700.000
(-) Interest (10% on Debenture)	24.000
EBT - Earnings before tax	676.000
(-) Tax @ 50%	338.000
Earnings after tax (EAT)	338.000

$$i. \text{ Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{900.000}{700.000} = 1.285 \text{ times}$$

$$ii. \text{ Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{700.000}{676.000} = 1.035 \text{ times}$$

$$iii. \text{ Combined Leverage} = \frac{\text{Contribution}}{\text{EBT}} = \frac{900.000}{676.000} = 1.33 \text{ times}$$

40	Particulars	Value of Equity	Value of Pref	Value of Debentures
	Existing Equity Capital (15,000 x 100)	1,500,000	1,500,000	1,500,000
	Issue of Equity Shares (25,000 x 100)	2,500,000	-	-
	Issue of Preference Shares (25,000 x 100)	-	2,500,000	-
	Issue of Debentures (25,000 x 100)	-	-	2,500,000
	Number of Equity Shares	$\frac{4,000,000}{100}$	$\frac{1,500,000}{100}$	$\frac{1,500,000}{100}$
		= 40,000 Shares	= 15,000 Shares	= 15,000 Shares
	EBIT	800,000	800,000	800,000
	(-) Interest	-	-	200,000
	EBIT	800,000	800,000	600,000
	(-) Tax	400,000	400,000	300,000
	EAT	400,000	400,000	300,000
	(-) Pref. dividend	-	200,000	-
	Earnings available to Equity Shareholders	400,000	200,000	300,000
	KPS = $\frac{\text{Earnings available to Eq. Sh. holder}}{\text{No. of Equity Shares}}$	$\frac{400,000}{40,000}$	$\frac{200,000}{15,000}$	$\frac{300,000}{15,000}$
		= ₹ 10	= ₹ 13.33	= ₹ 20

The company has to issue Debentures as it

5a.

$$YTM = \frac{I + \frac{(F - P_0)}{n}}{0.6 P_0 + 0.4 F}$$

$$= \frac{120 + \frac{(1000 - 1040)}{4}}{(0.6 \times 1040) + (0.4 \times 1000)}$$

$$YTM = 10.74 \%$$

- 5b Sources of working Capital Financing are
- Short term loans from Banks and Financial Institutions
 - overdraft / Cash credit facility
 - Trade credit
 - Advances from customers
 - Factorisation
 - Accrued Expenses etc

- 5c Factors affecting dividend policy are
- General State of Economy and Capital market
 - Cost of Capital
 - legal requirements
 - Tax policy of Govt
 - Inflation
 - Dividend payout ratio
 - Access to Capital market
 - Dilution of Control
 - Stability of dividend
 - Liabilities position of the Company
 - profitability & ROI etc.

6a. Behavioral Finance, a subfield of behavioral economics, proposes that psychological influences & biases affect the financial behaviour of investors and financial practitioners. Behavioral Finance helps us to understand how financial decisions like investments, payment, risk & personal debt are greatly influenced by human emotion, biases and cognitive limitations of mind in processing & responding to information.

- 6b. Functions of Financial Management include
- Investment Decisions
 - Financing Decisions
 - Dividend Decisions
 - Working Capital Decisions

6c. Computation of Cash Inflow for Ambusa Ltd.

Yr	PAT	Dep ⁿ , $\frac{50,000}{5\text{ yrs}} = 10,000$	CIF = PAT + Dep ⁿ
1	5,000	10,000	15,000
2	20,000	10,000	30,000
3	30,000	10,000	40,000
4	30,000	10,000	40,000
5	10,000	10,000	20,000

Computation of Payback Period.

Yr	CIF	Cumulative CIF
1	15,000	15,000
2	30,000	45,000
3	40,000	85,000
4	40,000	125,000
5	20,000	145,000

$$\begin{aligned}
 \text{PBP} &= 2\text{ yr} + \frac{50,000 - 45,000}{40,000} \\
 &= \underline{\underline{2\text{ yr } 1.5\text{ Month}}}
 \end{aligned}$$

7a. optimum Capital structure is that combination of Capital which minimises the overall Cost of Capital of the company and thereby maximises the wealth of Shareholders.

7b. Indian Financial System includes

(a) Financial Institutions - Commercial Banks, Industrial Bank, Provident fund, Mutual funds, NBFC's etc

(b) Financial market - capital market & Money market.

(c) Financial Instruments - long term Instruments like Shares, debentures, long term loans etc

Short term Instruments like Commercial papers, CD's, Govt Bonds, money market Instruments etc

(d) Financial Services - Merchant Banking, Factoring, venture Capital, project consultancy etc.

7c.

A. Current Assets

Item	Calculation	Amount
Debtors	$\frac{\text{Total Credit}}{12} \times 2 = \frac{2940000 \times 2}{12}$	490,000
Raw material stock	$\frac{\text{Material Cost}}{12} \times 1 = \frac{900,000}{12}$	75,000
Finished goods stock	$\frac{\text{Cash manufacturing Cost}}{12} \times 1 = \frac{2580000}{12}$	215,000
Prepaid Sales Promotional Expenses	Quarterly Sales Promotional Expense	30,000
Cash Balance	Pre-determined Amount	100,000
A - Current Assets		910,000

7c.
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B. Current Liability

Item	Calculation	Amount
Sunday Creditors	$\frac{\text{Material Cost}}{12} \times 2 = \frac{900,000}{12} \times 2 = 150,000$	150,000
Manufacturing Expenses	one month Cash mfg Exp	80,000
Wages outstanding	one month wages	60,000
Total admin Expenses	one Month Admin Exp	20,000

B. Current Liability. 310,000

Working Capital (A-B) = CA-CL 600,000

Add - 20% Safety Margin 120,000

Working Capital required 720,000

Working notes

1. Manufacturing Expense.

Sales	3,600,000
less: Gross profit (25%)	900,000
Total manufacturing cost	2,700,000
less - Materials	900,000
Wages	<u>720,000</u>
Manufacturing Expense	<u>1,080,000</u>

2. Cash manufacturing Expenses 960,000
(80,000 x 12)

3. Depreciation (1) - (2) 120,000

4. Total Cash Cost

Total manufacturing cost	2,700,000
(-) Depreciation	<u>120,000</u>
Cash manufacturing Cost	<u>2,580,000</u>

Add - Total Administrative Expenses	240.000
Sales promotion Expenses	120.000
Total Cash Cost	<u>2.940.000</u>

8 - CASE STUDY - Solokan:

NPV for Project A

Year	CIF	PV @ 8%	PV of CIF
1	100.000	0.926	92.60
2	200.00	0.857	171.40
3	100.00	0.794	79.40
4	100.00	0.735	73.50

Total PV of CIF = 1250.30

(-) Initial Investment = 1187.20

$$\text{NPV} = \underline{\underline{6310}}$$

NPV for Project - B

Year	CIF	PV @ 8%	PV of CIF
1	100.00	0.926	92.60
2	100.00	0.857	85.70
3	200.00	0.794	158.80
4	100.000	0.735	73.500

PV of CIF = 1,07.210

(-) Investment = 1,00,670

$$\text{NPV} = \underline{\underline{6540}}$$

B. Case Study Solution

Calculation of IRR for Project A.

Trial 1 = 8%

Investment = PV of CIF (@ 8%)

118720 = 125030

Trial 2 = 14%

Invst = PV of CIF

118720 = 115750

$$\text{IRR} = A + \frac{C-D}{C-D} \times (B-A)$$

$$= 8 + \frac{125030 - 118720}{125030 - 115750} \times (14 - 8)$$

IRR = 12.0797%

IRR for Project B

Trial 1 - 8% PV of CIF = 107210

Trial 2 - 14% PV of CIF = 89160

$$\text{IRR} = A + \frac{C-D}{C-D} \times (B-A)$$

$$= 8 + \frac{107210 - 100670}{107210 - 89160} \times (14 - 8)$$

= 10.1739%

According to IRR Project A is better for Investment.