

**Internal Assessment Test – I**

Sub:	Financial Management						Code:	22MBA22	
Date:	07.10.2024	Duration:	90 mins	Max Marks:	50	Sem:	II	Branch:	MBA
<b>SET 2</b>									

		Marks	
		CO	RBT
<b>Part A - Answer Any Two Full Questions ( 2* 20 = 40 marks)</b>			
1 (a)	<p>What do you understand by Operating Leverage?</p> <p>Operating leverage is a financial ratio that measures how a company's operating income changes in response to sales volume changes. It is a measure of how much a company can use fixed costs to increase profits as sales increase.</p>	[03]	CO5 L1
(b)	<p>Explain the factors determining the capital structure.</p> <p><b>Risk of cash insolvency</b> Risk of cash insolvency arises due to failure to pay fixed interest liabilities. Generally, the higher proportion of debt in capital structure compels the company to pay higher rate of interest on debt irrespective of the fact that the fund is available or not. The non-payment of interest charges and principal amount in time call for liquidation of the company. The sudden withdrawal of debt funds from the company can cause cash insolvency. This risk factor has an important bearing in determining the capital structure of a company and it can be avoided if the project is financed by issues equity share capital.</p> <p><b>Risk in variation of earnings</b> The higher the debt content in the capital structure of a company, the higher will be the risk of variation in the expected earnings available to equity shareholders. If return on investment on total capital employed (i.e., shareholders' fund plus long-term debt) exceeds the interest rate, the shareholders get a higher return. On the other hand, if interest rate exceeds return on investment, the shareholders may not get any return at all.</p> <p><b>Cost of capital</b> Cost of capital means cost of raising the capital from different sources of funds. It is the price paid for using the capital. A business enterprise should generate enough revenue to meet its cost of capital and finance its future growth. The finance manager should consider the cost of each source of fund while designing the capital structure of a company.</p> <p><b>Control</b> The consideration of retaining control of the business is an important factor in</p>	[07]	CO5 L2

capital structure decisions. If the existing equity shareholders do not like to dilute the control, they may prefer debt capital to equity capital, as former has no voting rights.

### **Trading on equity**

The use of fixed interest bearing securities along with owner's equity as sources of finance is known as trading on equity. It is an arrangement by which the company aims at increasing the return on equity shares by the use of fixed interest bearing securities (i.e., debenture, preference shares etc.). If the existing capital structure of the company consists mainly of the equity shares, the return on equity shares can be increased by using borrowed capital. This is so because the interest paid on debentures is a deductible expenditure for income tax assessment and the after-tax cost of debenture becomes very low.

Any excess earnings over cost of debt will be added up to the equity shareholders. If the rate of return on total capital employed exceeds the rate of interest on debt capital or rate of dividend on preference share capital, the company is said to be trading on equity.

### **Government policies**

Capital structure is influenced by Government policies, rules and regulations of SEBI and lending policies of financial institutions which change the financial pattern of the company totally. Monetary and fiscal policies of the Government will also affect the capital structure decisions.

### **Size of the company**

Availability of funds is greatly influenced by the size of company. A small company finds it difficult to raise debt capital. The terms of debentures and long-term loans are less favourable to such enterprises. Small companies have to depend more on the equity shares and retained earnings. On the other hand, large companies issue various types of securities despite the fact that they pay less interest because investors consider large companies less risky.

### **Needs of the investors**

While deciding capital structure the financial conditions and psychology of different types of investors will have to be kept in mind. For example, a poor or middle class investor may only be able to invest in equity or preference shares which are usually of small denominations, only a financially sound investor can afford to invest in debentures of higher denominations. A cautious investor who wants his capital to grow will prefer equity shares.

### **Flexibility**

The capital structures of a company should be such that it can raise funds as and when required. Flexibility provides room for expansion, both in terms of lower impact on cost and with no significant rise in risk profile.

### **Period of finance**

The period for which finance is needed also influences the capital structure. When funds are needed for long-term (say 10 years), it should be raised by issuing debentures or preference shares. Funds should be raised by the issue of equity shares when it is needed permanently.

### **Nature of business**

It has great influence in the capital structure of the business, companies having stable and certain earnings prefer debentures or preference shares and companies having no assured income depends on internal resources.

### **Legal requirements**

The finance manager should comply with the legal provisions while designing the capital structure of a company.

### **Purpose of financing**

Capital structure of a company is also affected by the purpose of financing. If the funds are required for manufacturing purposes, the company may procure it from the issue of long-term sources. When the funds are required for non-manufacturing purposes i.e., welfare facilities to workers, like school, hospital etc. the company may procure it from internal sources.

### **Corporate taxation**

When corporate income is subject to taxes, debt financing is favourable. This is so because the dividend payable on equity share capital and preference share capital are not deductible for tax purposes, whereas interest paid on debt is deductible from income and reduces a firm's tax liabilities. The tax saving on interest charges reduces the cost of debt funds. Moreover, a company has to pay tax on the amount distributed as dividend to the equity shareholders. Due to this, total earnings available for both debt holders and stockholders is more when debt capital is used in capital structure. Therefore, if the corporate tax rate is high enough, it is prudent to raise capital by issuing debentures or taking long-term loans from financial institutions.

### **Cash inflows**

The selection of capital structure is also affected by the capacity of the business to generate cash inflows. It analyses solvency position and the ability of the company to meet its charges.

### **Provision for future**

The provision for future requirement of capital is also to be considered while planning the capital structure of a company.

### **EBIT-EPS analysis**

If the level of EBIT is low from HPS point of view, equity is preferable to debt. If the EBIT is high from EPS point of view, debt financing is preferable to equity. If ROI is less than the interest on debt, debt financing decreases ROE. When the ROI

is more than the interest on debt, debt financing increases ROE.

(c) Prepare an estimate of working capital requirement from the following: [10]

Particulars	Units/Rs.
Projected annual sales	1,00,000 units
Selling Price	Rs.8 per unit
%age of net profit on sales	25%
Average credit period allowed to customers	8 weeks
Credit period allowed by supplier	4 weeks
Average stock holding	12 weeks
Allow 10% for contingencies	
Solution: Statement of Working Capital	

**Current Assets**

Debtors (8 Weeks) $600000 \times 8/52$	92,308
Stock $600000 \times 12/52$	138462
Less Current Liabilities:	
Creditors (4 weeks) $600000 \times 4/52$	46 154
Total NWC	184616
Add: 10% Contingency	18462
Net Working Capital	203078

2 (a) Associate NPV and IRR methods. [03]  
 Under the NPV approach, the present value can be calculated by discounting a project's future cash flow at predefined rates known as cut off rates. However, under the IRR approach, cash flow is discounted at suitable rates using a trial and error method that equates to a present value.

(b) Define NI approach in capital structure and value proposition by Modigliani Miller Approach. [07]

It postulates that the market analyzes a whole firm, and any discount has no relation to the debt-to-equity ratio. If tax information is provided, it states that WACC decreases with an increase in debt financing, and the value of a firm will increase.

Companies can finance their operations and fuel growth and expansion by borrowing money, issuing bonds, or obtaining loans. Companies can re-invest their profits in their operations or issue new stock shares to investors. Using the following assumptions, the Modigliani-Miller theorem argues that a company's value remains unchanged when adjusting its leverage.

CO5	L4
CO3	L1
CO5	L2

The Modigliani-Miller theorem impacted corporate financing, arguing that a company can finance growth by borrowing, issuing stock shares, or reinvesting its profits and that its capital structure is not a factor in its value. The theorem was developed in the 1950s by Merton Miller and Franco Modigliani.

(c) There is an equity share capital of Rs.40 lakhs consisting of 40,000 equity shares of Rs.100 each. The management is planning to raise another Rs.30 lakhs to finance a major program of expansion. It has four possible financing plans: [10]

(i) entirely through equity shares

(ii) Rs.15 lakhs in equity shares of Rs.100 each and the balance in 8% debentures

(iii) Rs.10 lakhs in equity shares of Rs.100 each and the balance through long term borrowing at 9% interest p.a

(iv) Rs.15 lakhs in equity shares of Rs.100 each and the balance through preference shares with 5% dividend.

The EBIT is Rs.15 lakhs. Tax @50%. Calculate the EPS and comment on the financial leverage.

**Solution:**

	Financial Plan I	Financial Plan II	Financial Plan III	Financial Plan IV
Equity Shares (₹ in lakhs)	40+30 = 70	40+15 = 55	40+10=50	40
Equity Shares (Number)	70,000	55,000	50,000	40,000
8% Debentures (₹ in lakhs)	—	15	—	—
9% Long-term Borrowings (₹ in lakhs)	—	—	—	20
5% Preference Shares (₹ in lakhs)	—	—	—	—
Earnings before interest and tax (EBIT)	₹ 15,00,000	₹ 15,00,000	₹ 15,00,000	₹ 15,00,000
Less: Interest on debentures	—	(1,20,000)	—	—
Interest on long term borrowing	—	—	(1,80,000)	—
Earnings before tax	15,00,000	13,80,000	13,20,000	15,00,000
Less: Tax @ 50%	7,50,000	6,90,000	6,60,000	7,50,000
Earnings after tax (EAT)	7,50,000	6,90,000	6,60,000	7,50,000
Less: Preference dividend	—	—	—	—
Earnings for equity shareholders	7,50,000	6,90,000	6,60,000	7,50,000
Number of equity shares	70,000	55,000	50,000	40,000
Earnings per shares (EPS)	₹ 10.71	12.55	13.20	18.75
Degree of Financial Leverage (DFL)	1.00	1.087	1.136	1.00
$\left( \frac{EBIT}{EBIT-I} \right)$				

Comments

Since the EPS as well as degree of financial leverage (DFL) is highest in financial plan IV, it should be accepted. The company should raise ₹ 10 lakhs in equity shares and the balance of ₹ 20 lakhs through long-term borrowing at 9% interest p.a.

3 (a) Tell the meaning of Net working capital. [03]

Net working capital (NWC) is a metric that measures a company's short-term financial health by subtracting its current liabilities from its current assets

(b) Experiment EBIT - EPS relationship with an example. [07]

EPS, of course, largely depends on a company's earnings. For EPS calculation, earnings before interest and taxes (EBIT) is used because it reflects the amount of profit that remains after accounting for those expenses necessary to keep the business going. EBIT is also often referred to as operating income.

Example:

Interest Expense: 3.5 crore ( 50 crore loan x 7% interest rate) Shares remain the same. Assume EBIT remains unchanged.  $EPS = (20 \text{ crore EBIT} - 3.5 \text{ crore interest}) \times (1 - 30\% \text{ tax rate}) / 5 \text{ million shares} = 3.15$ .

(c) The cost sheet of BP Ltd provides the following data: GP 20% on sales. [10]

Particulars	Amount in Rs.
Sales (3 months credit)	40,00,000
Raw material	12,00,000
Wages (15 days in arrears)	9,60,000
Manufacturing expenses One month in arrears	12,00,000
Administration expenses (one month in arrears)	4,80,000
Sales promotion expenses (payable half yearly in advance)	2,00,000

The company enjoys one month's credit from suppliers of raw materials and maintains 2 months stock of raw materials and one and a half months finished goods. Cash balance is maintained at Rs.1,00,000 as a precautionary balance. Assume 10% margin, find out the working capital requirements. **Cost of sales for debtors and stock of finished goods may be taken at sales minus gross profit.**

Current Assets	
Stock of raw materials	$\left(12,00,000 \times \frac{2}{12}\right)$
Stock of finished goods at cost (as gross profit is 20% on sales, so cost is 80% of sales)	$\left(40,00,000 \times \frac{80}{100} \times \frac{3}{2} \times \frac{1}{12}\right)$
Debtors at cost	$\left(40,00,000 \times \frac{80}{100} \times \frac{3}{12}\right)$
Advance payment of sales promotion expenses	$\left(2,00,000 \times \frac{6}{12}\right)$
Cash balance	
<b>Less : Current Liabilities :</b>	
Creditors for raw materials	$\left(12,00,000 \times \frac{1}{12}\right)$
Wages outstanding (15 days taken for 1/2 months in arrears, $9,60,000 \times \frac{1}{24}$ )	
Manufacturing expenses outstanding	$\left(12,00,000 \times \frac{1}{12}\right)$
Administration expenses outstanding	$\left(4,80,000 \times \frac{1}{12}\right)$
Net Working Capital	
Add : 10% Margin for contingencies	
Working Capital Required	

CO4	L4

**Part B - Compulsory (01\*10=10 marks)**

4 M/s. Solar Energies do not know the importance of working capital. However, they are able to give you the following information details.

Particulars	Cost per unit (in Rs.)
Raw material	400
Direct labour	150
Overheads (excluding depreciation)	300
Total	850

Additional information:

Selling price	1,000 per unit
Output	52,000 units per annum
Raw material in stock	Average 4 weeks
Work in progress (assume 50% completion)	Average 2 weeks
Finished goods in stock	Average 4 weeks
Credit allowed by suppliers	Average 4 weeks
Credit allowed to debtors	Average 8 weeks
Cash at bank	50,000

Assume production at even pace during the 52 weeks of the year. All sales are on credit basis. Calculate net working capital [5]

Calculate net working capital with 10% contingency [5]

1,15,00,000 \* 10% = Rs.11,50,000  
Total Net Working capital : 1,15,00,000 + 11,50,000 = 1,26,50,000

CO4	L4
CO4	L4

Assume production at even pace during the 52 weeks of the year. All sales are on credit basis. Calculate net working capital

**Solution:**

**Statement showing Net Working Capital Requirements**

Current Assets	(in Rs.)	(in Rs.)
Stock of R/m $52000 \times 400 \times 4/52$		16,00,000
Stock of WIP : R/m $1600000/2$	8,00,000	
Direct labour (50%) $52000 \times 150 \times 2/52 \times 50\%$	1,50,000	
Overheads $52000 \times 300 \times 2/52 \times 50\%$	3,00,000	12,50,000
Stock of FG $52,000 \times 850 \times 4/52$		34,00,000
Debtors at cost $52,000 \times 850 \times 8/52$		68,00,000
Cash at bank		50,000
Total Current Assets		1,31,00,000
Less: Current Liabilities		
Creditors for R/M $52,000 \times 400 \times 4/52$		16,00,000
Net Working Capital required		1,15,00,000

Course Outcomes (COs)		PO1	PO2	PO3	PO4	PO5	PO1	PO2	PO3	PO4	PO5
CO1	Understand the basic financial concepts										
CO2	Apply time value of money										
CO3	Evaluate the investment decisions				2(a)						
CO4	Estimate working capital requirements					3(a) (c) , 4					
CO5	Analyze the capital structure and dividend decisions				1(a),(b) , (c), 3(b)	2( b), (c)					

Cognitive level	KEYWORDS
L1 - Remember	list, define, tell, describe, recite, recall, identify, show, label, tabulate, quote, name, who, when, where, etc.
L2 - Understand	describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate interpret, discuss
L3 - Apply	calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify
L4 - Analyze	classify, outline, break down, categorize, analyze, diagram, illustrate, infer, select
L5 - Evaluate	asses, decide, choose, rank, grade, test, measure, defend, recommend, convince, select, judge, support, conclude, argue, justify, compare, summarize, evaluate
L6 - Create	design, formulate, build, invent, create, compose, generate, derive, modify, develop, integrate

**PO1–Theoretical Knowledge; PO2–Effective Communication Skills; PO3–Leadership Qualities; PO4 –Sustained Research Orientation; PO5 –Self-Sustaining Entrepreneurship**

CI

CCI

HOD