

Scanner Appendix

CS Executive Programme Group - I (Solutions of June-2024)

Paper - 4 : Corporate Accounting and Financial Management

Chapter - 2 : Introduction to Corporate Accounting

2024 - June [4A] (Or) (iii)

Records of accounts to be maintained by a company (Section 128)

Every company shall prepare and keep at its registered office books of account and other relevant books and papers and financial statement for every financial year which give a true and fair view of the state of the affairs of the company, including that of its branch office or offices, if any, and explain the transactions effected both at the registered office and its branches and such books shall be kept on accrual basis and according to the double entry system of accounting.

Although, all or any of the books of account aforesaid and other relevant papers may be kept at such other place in India as the Board of Directors (BoD) may decide and where such a decision is taken, the company shall, within seven days thereof, file with the Registrar a notice in writing giving the full address of that other place.

Manner of Books of Account to be kept in Electronic Mode

1. The books of account and other relevant books and papers kept in electronic mode shall remain accessible in India, at all times, so as to be usable for subsequent reference.
2. Although, for the financial year commencing on or after April 01, 2023, every company which uses accounting software for maintaining its books of account, shall use only such accounting software which has a feature of recording audit trail of each and every transaction, creating an edit log of each change made in books of account along with the date when such changes were made and ensuring that the audit trail cannot be disabled.

3. The books of account and other relevant books and papers referred above shall be retained completely in the format in which they were originally generated, sent or received, or in a format which shall present accurately the information generated, sent or received and the information contained in the electronic records shall remain complete and unaltered.
4. The information received from branch offices shall not be altered and shall be kept in a manner where it shall depict what was originally received from the branches.
5. The information in the electronic record of the document shall be capable of being displayed in a legible form. There shall be a proper system for storage, retrieval, display or printout of the electronic records as the Audit Committee, if any, or the Board may deem appropriate and such records shall not be disposed of or rendered unusable, unless permitted by law.

Chapter - 3 : Accounting Standards

2024 - June [4A] (Or) (i)

Small and Medium Companies:

Small and Medium Companies ("SMC") are companies that satisfy the following conditions:

1. Equity and debt securities of the company are not listed or not in the process of listing on any stock exchange whether in India or outside India
2. Company is not a Bank or Financial Institution or Insurance Company
3. Company's turnover does not exceed ₹250 crore in the preceding accounting year
4. Company does not have borrowing exceeding ₹ 50 crore at any time during immediately preceding accounting year
5. Company is not a holding company or subsidiary of a non-SMC.

Applicability of Accounting Standards to Small and Medium Companies (SMC):

Partial Exemption: Certain Relaxations are provided with respect to the following accounting standards:

- AS 17 Segment Reporting
- AS 15 Employee Benefits

- AS 19 Leases
- AS 20 Earnings Per Share
- AS 29 Provisions, Contingent Liabilities and Contingent Assets

Full exemption: AS 3- Cash Flow statements shall not be applicable to Small and Medium Companies (SMC) if it is a One Person Company, dormant company and Small Company.

Chapter - 4 : Accounting for Shares Capital

2024 - June [2] (c)

| Date | Particulars | Amount (in ₹) | Amount (in ₹) |
|-----------------------------------|---|------------------|----------------------|
| 1 st April 2018 | Deferred Employee Compensation Expense A/c Dr. To Employee Stock Options Outstanding A/c [Being grant of 10,000 stock options at a discount of ₹ 600 (1,000 - 400)] | 60,00,000 | 60,00,000 |
| 31 st March 2019 | Employee Compensation Expense A/c Dr. To Deferred Employee Compensation Expense A/c (Being amortization of Deferred Compensation i.e. ₹ 60,00,000/3) | 20,00,000 | 20,00,000 |
| 31 st March 2020 | Employee Compensation Expense A/c Dr. To Deferred Employee Compensation Expense A/c (Being amortization of Deferred Compensation i.e. ₹ 60,00,000/3) | 20,00,000 | 20,00,000 |
| 31 st March 2021 | Employee Stock Options Outstanding A/c Dr. To Employee Compensation Expense A/c (2,000* ₹600)*2/3 To Deferred Employee Compensation Expense A/c (Being reversal of 2,000 unvested options lapsed) | 12,00,000 | 8,00,000 4,00,000 |

| | | | |
|-----------------------------------|--|------------------------|---------------------|
| 31 st March 2021 | Employee Compensation Expense A/c Dr. To Deferred Employee Compensation Expense A/c (Being amortization of Deferred Compensation i.e 8,000* ₹ 600/3) | 16,00,000 | 16,00,000 |
| 31 st March 2021 | Bank A/c (7,000*400) Dr. Employee Stock Options Outstanding A/c Dr. To Share Capital A/c To Securities Premium A/c (Being exercise of 7,000 options at an exercise price of ₹ 400/-) | 28,00,000 42,00,000 | 70,000 69,30,000 |
| 31 st March 2022 | Employee Stock Options Outstanding A/c Dr. To Employee Compensation Expense A/c (Being reversal of lapse of vested options - 1,000* ₹ 600) | 6,00,000 | 6,00,000 |

2024 - June [4] (a)

| Particulars | | Dr. (in ₹) | Cr. (in ₹) |
|---|-----|-------------|-------------------------|
| Bank A/c To Equity Share Application and Allotment A/c (Being application of 50,000 equity shares at ₹ 240 a share including premium of ₹ 230 per share) | Dr. | 1,20,00,000 | 1,20,00,000 |
| Equity Share Application and Allotment A/c To Equity Share Application A/c To Securities Premium Reserves A/c (Being allotment of 50,000 equity shares of ₹10 each issued at a premium of ₹ 230 per share) | Dr. | 1,20,00,000 | 5,00,000 1,15,00,000 |

| | | | |
|---|-----|-------------|-------------|
| 12% redeemable preference share capital A/c | Dr. | 1,00,00,000 | |
| Premium on redemption of preference share capital A/c To 12% Preference Shareholders A/c | Dr. | 20,00,000 | 1,20,00,000 |
| (Being amount due on redemption of preference shares) | | | |
| Securities Premium Reserves A/c To Premium on redemption of preference share capital A/c | Dr. | 20,00,000 | 20,00,000 |
| (Being application of securities premium account to write off premium on redemption of preference shares) | | | |
| 12% Preference Shareholders A/c To Bank A/c | Dr. | 1,20,00,000 | 1,20,00,000 |
| (Being amount paid to 12% preference shareholders) | | | |

2024 - June [4] (c)

| Date | Particulars | | Dr. (in ₹) | Cr. (in ₹) |
|------|---|-----|------------|--------------------|
| 1. | Bank A/c To Share Application A/c (Being Share application money received on 1,00,000 shares) | Dr. | 2,00,000 | 2,00,000 |
| 2. | Share Application A/c To Share Capital A/c To Share Allotment A/c | Dr. | 2,00,000 | 1,20,000 80,000 |

| | | | | |
|----|--|-----|----------|----------------------|
| | (Being application money for 60,000 shares transferred to Share Capital A/c on allotment and remaining adjusted towards allotment) | | | |
| 3. | Share Allotment A/c To Share Capital A/c To Share Premium A/c (Being allotment money due including premium) | Dr. | 3,00,000 | 1,80,000 1,20,000 |
| 4. | Bank A/c To Share Allotment A/c (Being allotment money received) | Dr. | 2,16,333 | 2,16,333 |
| 5. | Share First Call A/c To Share Capital A/c (Being first call amount transfer to share capital a/c) | Dr. | 1,20,000 | 1,20,000 |
| 6. | Bank A/c To Share First Call A/c (Being first call money received) | Dr. | 1,18,000 | 1,18,000 |
| 7. | Final Call A/c To Share Capital A/c (Being final call transfer to share capital a/c) | Dr. | 1,80,000 | 1,80,000 |
| 8. | Bank A/c To Final Call A/c | Dr. | 1,77,000 | 1,77,000 |

| | | | | |
|----|--|-----|--------|--------|
| | (Being Final Call money received and advance adjusted) | | | |
| 9. | Share Capital A/c | Dr. | 10,000 | |
| | Share premium A/c | Dr. | 2,000 | |
| | To Share Forfeited A/c | | | 3,333* |
| | To Share Allotment A/c | | | 3,667* |
| | To First Call A/c | | | 2,000 |
| | To Final Call A/c | | | 3,000 |
| | (Being Forfeiture of 1,000 shares For non-payment of allotment and call money) | | | |

(*Since Fractional shares cannot be applied/allotted, the amount in Share Forfeiture A/c and Share Allotment A/c may vary by ± 1)

Workings:

Note: 1

| Particulars | | Share Capital | Share Allotment | Share Premium | |
|---------------------------------|----------------------------------|--------------------------------|----------------------------------|--------------------------------|-------------------|
| Share Application | $1,00,000 \times 2 = ₹ 2,00,000$ | | | | |
| Share Allotment | $60,000 \times 5 = ₹ 3,00,000$ | $60,000 \times 2 = ₹ 1,20,000$ | $2,00,000 - 1,20,000 = ₹ 80,000$ | | |
| Allotment money to be received | | $60,000 \times 3 = ₹ 1,80,000$ | | $60,000 \times 2 = ₹ 1,20,000$ | |
| Allotment money received | | | | | 2,16,333 (Note 2) |
| First Call money to be received | $60,000 \times 2 = ₹ 1,20,000$ | | | | |
| First Call money received | | | | | ₹ 1,18,000 |
| Final Call money to be received | $60,000 \times 3 = ₹ 1,80,000$ | | | | |

| | | | | | |
|---------------------------|--|--|--|--|------------|
| Final Call money received | | | | | ₹ 1,77,000 |
|---------------------------|--|--|--|--|------------|

Note: 2

Allotment Money Received

| Share allotment money received | Amount in ₹ |
|-----------------------------------|-------------|
| Shares allotted | 60,000 |
| Allotment call | 5 |
| Allotment amount | 3,00,000 |
| Allotment advance | 80,000 |
| Net allotment | 2,20,000 |
| Due from Walter on allotment call | -5,000 |
| Excess Walter | 1,333 |
| Net amount received | 2,16,333 |

Chapter - 5 : Accounting for Debentures

2024 - June [4] (b)

10% Mortgage Debentures Account

| Date | Particulars | Amount (₹) | Date | Particulars | Amount (₹) |
|----------------------------|--------------------------|-------------|----------------------------|----------------|-------------|
| 30 th June 2022 | To Debenture Holders A/c | 2,50,00,000 | 1 st April 2022 | By Balance b/d | 2,50,00,000 |

Debentures Redemption Reserve (DRR) Investment Account

| Date | Particulars | Amount (₹) | Date | Particulars | Amount (₹) |
|----------------------------|----------------|------------|----------------------------|-------------|------------|
| 1 st April 2022 | To balance b/d | 37,50,000 | 30 th June 2022 | By Bank | 37,50,000 |

Debenture Interest Account

| Date | Particulars | Amount (₹) | Date | Particulars | Amount (₹) |
|----------------------------|---|------------|----------------------------|------------------------|------------|
| 30 th June 2022 | To Debenture holder A/c (2,50,00,000 × 10% × 3/12) | 6,25,000 | 30 th June 2022 | By Profit and Loss A/c | 6,25,000 |

Debentures Redemption Reserve (DRR) Account

| Date | Particulars | Amount (₹) | Date | Particulars | Amount (₹) |
|----------------------------|--------------------|-------------|----------------------------|------------------------|-------------|
| 30 th June 2022 | To General Reserve | 2,50,00,000 | 1 st April 2022 | By Balance b/d | 1,25,00,000 |
| | | | 1 st April 2022 | By Profit and Loss A/c | 1,25,00,000 |

Bank A/c

| Date | Particulars | Amount (₹) | Date | Particulars | Amount (₹) |
|----------------------------|--|-------------|----------------------------|--------------------------|-------------|
| 1 st April 2022 | To Balance b/d | 3,25,00,000 | 30 th June 2022 | By Debenture Holders A/c | 2,81,25,000 |
| 30 th June 2022 | To Interest on DRR Investment A/c (37,50,000 × 7% × 3/12) | 65,525 | | | |
| 30 th June 2022 | To DRR Investment A/c | 37,50,000 | 30 th June 2022 | By Balance c/f | 81,90,625 |
| | | 3,63,15,625 | | | 3,63,15,625 |

Chapter - 6 : Related Aspects of Company Accounts

2024 - June [3] (a)

Calculation of unmarked applications

| | |
|---------------------------|--------|
| | Shares |
| Total Subscriptions | 50,000 |
| Less: Marked Applications | 35,000 |
| | 15,000 |

| | |
|-------------------|--------|
| Firm Underwriting | 21,000 |
| | 36,000 |

Statement of Underwriters Liability

| Particulars | A | B | C | Total |
|--|--------|--------|--------|----------|
| Gross Liability | 60,000 | 25,000 | 15,000 | 1,00,000 |
| Less: Marked Applications | 10,000 | 20,000 | 5,000 | 35,000 |
| Balance | 50,000 | 5,000 | 10,000 | 65,000 |
| Less: Unmarked applications (Distributed in ratio of gross liability) | 21,600 | 9,000 | 5,400 | 36,000 |
| Balance | 28,400 | -4,000 | 4,600 | 29,000 |
| Credit of B's Subscription in 60:15 ratio | -3200 | 4000 | -800 | — |
| Net Liability | 25,200 | — | 3,800 | 29,000 |
| Add: Firm Underwriting | 8,000 | 3,000 | 10,000 | 21,000 |
| Total Liability | 33,200 | 3,000 | 13,800 | 50,000 |

Chapter - 7 : Consolidation of Accounts

2024 - June [3] (b)

| Step | Calculation of cost of control before issue of bonus shares | Amount (₹) |
|------|---|------------|
| 1. | Amount of consideration paid by H Ltd. for acquisition of shares in S Ltd. | 28,00,000 |
| 2. | Less: Face Value of shares acquired | 16,00,000 |
| 3. | Less: H Ltd.'s share in capital profits 600,000 x (8/10) | 4,80,000 |
| 4. | Cost of control/Goodwill | 7,20,000 |

| Step | Calculation of cost of control after issue of bonus shares | Amount (₹) |
|------|--|------------|
| 1. | Amount of consideration paid by H Ltd. for acquisition of shares in S Ltd. | 28,00,000 |
| 2. | Less: Face Value of Shares acquired | 16,00,000 |
| 3. | Less: H Ltd.'s share in capital profits 6,00,000 x (8/10) | 4,80,000 |
| | | 7,20,000 |
| 4. | H Ltd.'s share in bonus (20,00,000 x 8/10 x 1/5) | 3,20,000 |
| 5. | Cost of Control/Goodwill | 4,00,000 |

Journal Entries

| | | Amount in (₹) |
|-----------------|---|---------------|
| Books of S Ltd. | P & L A/c Dr. | 4,00,000 |
| | To Equity Share Capital A/c | 4,00,000 |
| | (Being issue of bonus shares in the ratio of 1 share for every 5 shares held) | |
| Books of H Ltd. | No entry is passed | |

Chapter - 8 : Financial Statement Analysis

2024 - June [1]

(a) Inventory Turnover Ratio = $\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$

Cost of Goods Sold = Opening Inventory + Purchases + Wages + Carriage Inwards - Closing Inventory

Cost of Goods Sold = ₹ 1,00,000 + ₹ 9,50,000 + ₹ 7,00,000 + ₹ 1,50,000 - ₹ 2,00,000
= ₹ 17,00,000

Average Inventory = (Opening Inventory + Closing Inventory)/2

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \frac{\text{₹17,00,000}}{\text{₹1,50,000}} = 11.33 \text{ times}$$

$$\text{Receivables Turnover Ratio} = \frac{\text{Credits Sales}}{\text{Receivables Turnover}} = \frac{(80\% \text{ of ₹25,00,000})}{(\text{₹2,50,000} + \text{₹3,00,000})/2}$$

$$\text{Receivables Turnover Ratio} = \frac{\text{₹20,00,000}}{\text{₹2,75,000}} = 7.273 \text{ times}$$

$$\text{Average Collection Period} = \frac{365}{\text{Receivables Turnover}} = 365/7.273 = 50.19 \text{ days}$$

Explanation of Ratios

| | |
|---|---|
| Inventory turnover ratio of 11.33 times | Inventory turnover ratio of 11.33 has room for improvement. Inventory days (365/11.33) are 32 days. The organization should aim to reduce inventory days with better planning of raw material utilization and demand estimation of finished products. |
| Average Collection Period is 50.19 days | It takes approximately 50 days to collect on credit sales. Receivable days are on the higher side. Planning should be done to improve upon collection. Factoring as a strategy could also be used to sell receivables. |

(b) Return on Equity = Net Profit Margin × Asset Turnover Ratio × Financial Leverage

$$\begin{aligned} \text{(i) Net Profit Margin} &= \frac{\text{Net Profit}}{\text{Revenues}} \\ &= \frac{(\text{Sales} - \text{Cost of Goods Sold} - \text{operating expenses}) - 30\% \text{ tax}}{\text{Revenues}} \\ &= \frac{(\text{₹25,00,000} - \text{₹17,00,000} - \text{₹2,50,000} - \text{₹2,00,000} - \text{₹50,000}) - 30\% \text{ tax}}{\text{₹25,00,000}} \end{aligned}$$

$$\text{Net Profit Margin} = \text{₹2,10,000} / \text{₹25,00,000} = 8.40\% \text{ (A)}$$

$$\text{(ii) Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Total Assets}} = \frac{\text{₹25,00,000}}{\text{₹24,00,000}} = 1.042 \text{ (B)}$$

$$\text{(iii) Financial Leverage} = \frac{\text{Total Assets}}{\text{Total Equity}} = \frac{\text{₹24,00,000}}{\text{₹20,00,000}} = 1.20 \text{ (C)}$$

$$\text{Return on Equity} = \text{(A)} \times \text{(B)} \times \text{(C)} = 8.40 \times 1.04 \times 1.20 = 10.50\%$$

The return on equity is calculated using Du Pont Analysis. An improvement can be made in Return on Equity (RoE).

1. By improving the utilization of assets. The asset turnover ratio is on the lower side. Operations need to be studied for efficiency. An increase in Assets turnover will improve expected returns on equity.
2. A small amount of debt increase on the balance sheet could help the firm. Increase in financial leverage is likely to lead to an increase in Return on Equity.

Although, it should be noted that borrowing costs need to be lower than expected Return on Capital Employed to benefit equity shareholder returns.

3. Passing on some of the costs to customers through minor price increases and making the organization more efficient may lead to better margins and in turn better Return on equity(RoE).

(c) Tentative Profit & Loss A/c for financial year 2023-24 for "B & Sons"

| Tentative P&L | Amount in ₹ FY 2022-23 | Amount in ₹ FY 2023-24 | Remark |
|---|---------------------------|---------------------------|---|
| Revenues | 25,00,000 | 32,50,000 | New Revenues increase by 30% |
| Gross Profit | 8,00,000 | 10,40,000 | Gross Profit Margin 32% |
| Admin expenses | 2,50,000 | 2,75,000 | Given |
| Depreciation | 2,00,000 | 3,00,000 | Given |
| Earnings before Interest and Tax (EBIT) | 3,50,000 | 4,65,000 | |
| Finance Charges | 50,000 | 90,000 | Additional Debt is 4,00,000/- @ 10 % interest |

| | | | |
|---------------------------|----------|----------|---------------|
| Earnings before Tax (EBT) | 3,00,000 | 3,75,000 | |
| Tax | 90,000 | 1,12,500 | Tax rate @30% |
| Profit after Tax (PAT) | 2,10,000 | 2,62,500 | |

Owner's Capital as on March 31, 2024

| Particulars | Amount in ₹ |
|--|-------------|
| Equity Amount as on 1 st April 2023 | 20,00,000 |
| Profit of FY 2023-24 | 2,62,500 |
| Additional Equity raised (₹ 5,00,000 - 80% debt) | 1,00,000 |
| | 23,62,500 |

2024 - June [2] (a)

(i) Calculation of Non-Current Investments

Long term investments = ₹100/8% = ₹ 1250 Lakh

(ii) Inventory Turnover Ratio = $\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$

Inventory = ₹15,000 lakh/5 = ₹ 3,000 lakh

Current Assets = ₹ 3,000 lakh + ₹ 5,000 lakh (Given) + ₹ 300 lakh (Given)

= ₹ 8,300 Lakh

Balance Sheet Total = Non-Current Assets + Non-Current Investments + Current Assets

= ₹ 33,500 Lakh + ₹ 1,250 Lakh + ₹ 8,300 Lakh

= ₹ 43,050 Lakh

(iii) Shareholders' Funds

| | | |
|--|---------------|---------------|
| Balance Sheet Total | | ₹ 43,050 Lakh |
| Less: Long term borrowings (1,000/10%) | ₹ 10,000 Lakh | |

| | | |
|---------------------------|---------------|---|
| Less: Current Liabilities | ₹ 8,600 Lakh | |
| Less: Reserves | ₹ 22,800 Lakh | ₹ 41,400 Lakh |
| Shareholders' Funds | | ₹ 1,650 Lakh Total of equity shares issued and preference shares |

(iv) Division of share capital in 2:1

| | |
|--------------------------|--------------|
| Equity Share Capital | ? 1,100 Lakh |
| Preference Share Capital | ? 550 Lakh |
| | ? 1,650 Lakh |

(v) **Balance Sheet of X Ltd.**
(As on 31st March 2023)

| I. Equity and Liabilities | Amount (in ₹ lakh) | Amount (in ₹ lakh) |
|---|--------------------|--------------------|
| 1. Shareholders' Funds | | |
| a. Share Capital | | |
| Equity Capital: Divided in shares of face value ₹ 10/- | 1,100 | |
| Preference Capital: Divided in shares of face value ₹ 1,000/- | 550 | |
| Total issued capital | | 1,650 |
| b. Reserves and Surplus | | |
| General Reserve | 7,800 | |
| P&L A/c | 15,000 | 22,800 |
| Shareholders' funds | | 24,450 |

| | | |
|--|--------|--------|
| 2. Non-Current Liabilities | | |
| a. Long term Borrowings | 10,000 | 10,000 |
| | | – |
| 3. Current Liabilities | | |
| Short Term Borrowings | 5,000 | |
| Trade Payables | 3,000 | |
| Short Term Provisions | 500 | |
| Outstanding Expenses | 100 | 8,600 |
| | | 43,050 |
| II. Assets | | |
| 1. Non-Current Assets | | – |
| a. Property, Plant and Equipment and Intangible Assets | | |
| i. Property, Plant and Equipment | 30,000 | |
| ii. Intangible Assets | 1,000 | |
| iii. Capital Work in Progress | 2,500 | 33,500 |
| 2. Non-Current Investments | | 1,250 |
| 1. Current Assets | | |
| a. Inventories | 3,000 | |
| b. Trade Receivables | 5,000 | |
| c. Cash and Cash Equivalentents | 300 | 8,300 |
| | | 43,050 |

2024 - June [2] (b)

| Particulars | Amount in ₹ | |
|------------------|-------------|--------------|
| Sales | 17,00,000 | |
| Cost of Sales | -10,00,000 | |
| Gross Profit | 7,00,000 | 41.18% |
| Selling Expenses | -2,00,000 | |
| Admin Expenses | -1,00,000 | |
| EBITDA | 4,00,000 | 23.53% |
| Depreciation | -2,00,000 | |
| EBIT | 2,00,000 | |
| Interest | -50,000 | |
| Other income | 45,000 | |
| EBT | 1,95,000 | |
| Tax | -58,500 | Tax rate 30% |
| Net Profit | 1,36,500 | 7.82% |

$$\text{Net profit Margin} = \frac{\text{Net Profit}}{\text{Total Revenues}} = \frac{\text{₹1,36,500}}{\text{₹17,45,000}} = 7.82\%$$

Note: Total Revenue and Net Profit includes Other Income.

2024 - June [4A] (Or) (ii)**Leverage:**

Leverage is a financial concept that involves using borrowed capital or debt to increase the potential return on an investment. It is the strategy of using various financial instruments or borrowed capital to amplify the potential return of an investment. Leverage can also refer to the amount of debt a firm uses to finance assets.

Types of Leverage:

1. **Operating Leverage:** This mention to the proportion of fixed costs to variable costs in a company's operations. High operating leverage means that a company has a larger proportion of fixed costs relative to variable costs, which can enhance the effects of changes in sales on operating income.
2. **Financial Leverage:** This mention to the use of debt to acquire additional assets. Financial leverage is the ratio of a company's debt to its equity. High financial leverage means a company is using a noteworthy amount of debt to finance its assets, which can increase the potential return to equity holders but also increases the risk.
3. **Combined Leverage:** This is the total leverage effect of both operating and financial leverage. It reflects the overall risk and return situation of the company by considering both the fixed costs in operations and the fixed interest obligations from debt.

Trading on Equity

Trading on equity, also known as financial leverage, refers to the practice of using borrowed funds (debt) to increase the return on equity. This strategy involves raising debt to finance a portion of a company's operations or investments with the expectation that the income generated will be greater than the cost of debt, thereby increasing the returns to equity shareholders.

Important Concepts of Trading on Equity

1. **Debt Financing:** The company raises capital through borrowing, which could be in the form of loans, bonds, or other financial instruments.
2. **Return on Equity (ROE):** The income generated from the use of borrowed funds is expected to exceed the interest costs, thereby increasing the returns available to shareholders.
3. **Amplification of Profits:** When a company earns a higher rate of return on its investment than the interest rate on its debt, the excess returns enhance the overall profitability for equity shareholders.

Chapter - 9 : Cash Flow
2024 - June [3] (c)

Land and Building Account

| Particulars | Amount in (₹) | Particulars | Amount in (₹) |
|--------------------|---------------|-----------------|---------------|
| To balance b/d | 6,90,000 | By depreciation | 1,80,000 |
| To Purchase (Bank) | 6,60,000 | By balance c/d | 11,70,000 |
| | 13,50,000 | | 13,50,000 |

Plant and Machinery Account

| Particulars | Amount in (₹) | Particulars | Amount in (₹) |
|--------------------|---------------|-----------------|---------------|
| To balance b/d | 2,56,200 | By depreciation | 1,50,000 |
| To Purchase (Bank) | 3,13,800 | By balance c/d | 4,20,000 |
| | 5,70,000 | | 5,70,000 |

Furniture Account

| Particulars | Amount in (₹) | Particulars | Amount in (₹) |
|--------------------|---------------|-----------------|---------------|
| To balance b/d | 16,500 | By depreciation | 3,600 |
| To Purchase (Bank) | 6,600 | By balance c/d | 19,500 |
| | 23,100 | | 23,100 |

Provision for Taxation Account

| Particulars | Amount in (₹) | Particulars | Amount in (₹) |
|----------------|---------------|----------------|---------------|
| To Bank | 67,500 | By balance b/d | 67,500 |
| To balance c/f | 1,21,500 | By P & L | 1,21,500 |
| | 1,89,000 | | 1,89,000 |

Cash Flow Statement of CBA Limited for the year ended 31st March 2023

| | Particulars | Amount in (₹) | Amount in (₹) | Amount in (₹) |
|------|--|------------------|------------------|------------------|
| (i) | Cash Flow from Operating Activities | | | |
| Add | Profit for the year (P&L difference) | | 1,52,400 | |
| | Depreciation | | | |
| | Land and Building | 1,80,000 | | |
| | Plant and Machinery | 1,50,000 | | |
| | Furniture | 3,600 | 3,33,600 | |
| | General Reserve | | 60,000 | |
| | Interest on Debentures (for 6 months) | | 10,500 | |
| | Provision for Tax | | 1,21,500 | |
| | Proposed Dividend | | 1,05,000 | |
| | Cash flow before working capital changes | | 7,83,000 | |
| | Working capital changes | | | |
| | Stock | -39,900 | | |
| | Sundry Debtors | -31,500 | | |
| | Sundry creditors | 17,100 | -54,300 | |
| | | | 7,28,700 | |
| | Tax Paid | | -67,500 | |
| | Cash Flow from Operating Activities (A) | | 6,61,200 | 6,61,200 |
| (ii) | Cash Flow from Investing Activities | | | |

| | | | | |
|-------|---|--|----------|-----------|
| | Purchase of Land and Building | | 6,60,000 | |
| | Purchase of Plant and Machinery | | 3,13,800 | |
| | Purchase of Furniture | | 6,600 | |
| | Cash Flow from Investing Activities (B) | | 9,80,400 | -9,80,400 |
| (iii) | Cash Flow from Financing Activities | | | |
| | Interest on debentures | | -10,500 | |
| | Issue of equity shares | | 1,50,000 | |
| | Share premium | | 90,000 | |
| | Debenture issue | | 2,10,000 | |
| | Payment of dividend | | -90,000 | |
| | Cash Flow from Financing Activities I | | 3,49,500 | 3,49,500 |
| | Net change in cash and cash equivalents (A+B+C) | | | 30,300 |
| | + Cash and cash equivalents at the beginning | | | 1,02,600 |
| | = Cash and cash equivalents at the end | | | 1,32,900 |

Note: It is assumed that the amount of Provision for Taxation and Proposed Dividend as on 1st April 2022 i.e base year is paid in current year.

Chapter - 13 : Capital Budgeting
2024 - June [6] (a)

| Option M | | | | Option N | | | |
|---------------|----------|----------------------------|----------------------|---------------|-----------|----------------------------|----------------------|
| Discount Rate | 15.00% | Present Value Factor (PVF) | Present Value PV (₹) | Discount Rate | 19.00% | Present Value Factor (PVF) | Present Value PV (₹) |
| Year | | | | Year | | | |
| 1. | 1,52,000 | 0.870 | 1,32,240 | 1. | 3,45,000 | 0.840 | 2,89,800 |
| 2. | 2,36,000 | 0.756 | 1,78,416 | 2. | 7,25,000 | 0.706 | 5,11,850 |
| 3. | 7,00,000 | 0.658 | 4,60,600 | 3. | 8,00,000 | 0.593 | 4,74,400 |
| 4. | 5,00,000 | 0.572 | 2,86,000 | 4. | 3,00,000 | 0.499 | 1,49,700 |
| 5. | 3,57,000 | 0.497 | 1,77,429 | 5. | 10,00,000 | 0.419 | 4,19,000 |
| | | | 12,34,685 | | | | 18,44,750 |
| | | Outflow | -15,00,000 | | | | -15,00,000 |
| | | NPV | -2,65,315 | | | | 3,44,750 |

Investor will prefer option N for Investment due to higher NPV.

2024 - June [6A] (Or) (iv)

Economic Value Added:

Economic Value Added is the after tax cash flow generated by a business minus the cost of the capital it has incurred by deploying capital to generate that cash flow. Representing real profit versus paper profit, EVA underlines shareholder value, increasingly the main target of leading companies strategies. Shareholders are the players who provide the firm with capital to gain from their investment.

There are two important components to EVA i.e the net operating profit after tax and the capital charge, which is the cost of capital times the amount of capital.

The capital charge is the product of the cost of capital times the capital tied up in the investment. In other words, the capital charge is the cash flow required to compensate investors for the riskiness of the business given the amount of capital invested.

The cost of capital is the minimum rate of return on capital required to compensate debt and equity investors for bearing risk—a cut-off rate to create value and capital is the amount of cash invested in the business, net of depreciation.

EVA = Operating Profit - Capital Charge

EVA = NOPAT - (Cost of Capital * Capital)

EVA represents value added to shareholders by generating operating profits in excess of cost of capital employed in business. EVA will increase if:

- Operating profits grow without employing additional capital i.e., through greater efficiency.
- Additional capital is invested in the projects that give higher returns than the cost of procuring new capital.
- Unproductive capital is liquidated i.e. curtailing unproductive use of capital.

Market Value Added:

Market value added is a calculation that shows the difference between the market value of a company and the capital contributed by all investors, both bondholders and shareholders. In other words, it is the market value of debt and equity minus all capital claims held against the company. It is calculated as:

$$MVA = V - K$$

V = market value of firm including the value of firm's equity and debt

K = Total capital invested in the firm. Capital = Equity + Debt capital.

Chapter - 14 : Cost of Capital

2024 - June [5]

1. Weighted Average Cost of Capital (WACC)

$$\text{Cost of Debentures} = C_d = \frac{[i(1-t) + (MV - NP)/n]}{[(MV + NP)/2]}$$

i = annual interest payment

MV = maturity value

NP = net proceeds

t = corporate tax rate

n = number of years to maturity

| | | | | |
|---|--|---|---|----------|
| (i) | $Cd_{\text{(First issue)}} = \frac{i(1-t) + (MV - NP)/n}{(MV + NP)/2}$ | $\frac{12(1-0.3) + (100 - 98)/8}{(100 + 98)/2}$ | $\frac{8.4 + 0.25}{99} = \frac{8.65}{99}$ | = 0.087 |
| (ii) | $Cd_{\text{(Second issue)}} = \frac{i(1-t) + (MV - NP)/n}{(MV + NP)/2}$ | $\frac{13(1-0.3) + (100 - 100)/5}{(100 + 100)/2}$ | $\frac{9.1 + 0}{100} = \frac{9.1}{100}$ | = 0.091 |
| <p>Cost of Preference Shares(C_p) = $\frac{PD + (MV - NP)/n}{(MV + NP)/2}$ PD = amount of annual preference dividend</p> | | | | |
| (iii) | $C_p = \frac{PD + (MV - NP)/n}{(MV + NP)/2} = \frac{10 + (100 - 97)/10}{(100 + 97)/2}$ | $\frac{10 + 0.3}{98.5} = \frac{10.3}{98.5}$ | | = 0.1046 |
| <p>Cost of Equity Shares Capital (C_e) = $\frac{DPS}{MP(\text{or } NP)}$ DPS = Expected Dividend per share MP = Current Market Price per share NP = Net proceeds per share</p> | | | | |
| (iv) | $C_e = \frac{DPS}{MP(\text{or } NP)} = \frac{3}{25} = 0.12$ | | | |
| <p>Cost of Retained Earnings (C_r) = $\frac{DPS(1-t_1)(1-b)}{MP(1-T_2)}$ T_1 = marginal tax rate applicable to individual shareholder T_2 = capital gains tax</p> | | | | |
| (v) | $C_r = 3(1 - 0.25)/25 (1 - 0.2) = 2.25/20 = 0.1125$ | | | |

Weighted Average Cost (Book Value Weights)

| Source | Amount in ₹ | Weights | Cost | Weighted Average |
|---------------|-------------|---------|--------|------------------|
| Equity Shares | 6,00,000 | 0.400 | 0.1200 | 0.0480 |

| | | | | |
|----------------------------------|-----------|-------|--------|------------------|
| 10% Cumulative Preference Shares | 2,50,000 | 0.167 | 0.1046 | 0.0175 |
| 12% Debentures (first issue) | 3,00,000 | 0.200 | 0.0870 | 0.0174 |
| 13% Debentures (second issue) | 2,00,000 | 0.133 | 0.0910 | 0.0121 |
| Retained Earnings | 1,50,000 | 0.100 | 0.1125 | 0.0113 |
| Total | 15,00,000 | 1.000 | | 0.1063 or 10.63% |

Weighted Average Cost (Market Value Weights)

| Source | Amount in ₹ | Weights | Cost | Weighted Average |
|----------------------------------|-------------|---------|--------|------------------|
| Equity Shares | 15,00,000 | 0.61 | 0.12 | 0.0732 |
| 10% Cumulative Preference Shares | 2,70,000 | 0.11 | 0.1046 | 0.0115 |
| 12% Debentures (first issue) | 3,60,000 | 0.146 | 0.087 | 0.0127 |
| 13% Debentures (second issue) | 1,80,000 | 0.073 | 0.091 | 0.0066 |
| Retained Earnings | 1,50,000 | 0.061 | 0.1125 | 0.0069 |
| Total | 24,60,000 | 1.000 | | 0.1109 or 11.09% |

2. Market Price of equity shares at the end of the current year

$$P_0 = \frac{D_1 + P_1}{1 + K_e}$$

Where,

K_e = Cost of Equity

D_1 = Dividend to be received at the end of the period

P_1 = Market Price of equity shares at the end of the current year

$P_1 = P_0(1 + k_e) - D_1 = 25(1 + 0.12) - 3 = 28 - 3 = ₹ 25$

Assumptions of M-M Hypothesis

1. The capital markets are perfect. Perfect capital markets imply that
 - (a) Information is freely available to all,
 - (b) Transaction and floatation costs do not exist and
 - (c) No Investor is large enough to affect the market price of a share.
 2. Investors behave rationally.
 3. There are either no taxes or there are no differences in the tax rates applicable to dividends and capital gains. This means that investors value a rupee of dividend as much as a rupee of capital gains.
 4. The firm has a fixed Investment policy.
 5. Risk or uncertainty does not exist, (e., Investors are able to forecast future prices and dividends with certainty and one discount rate is appropriate for all securities at time periods.
3. **Calculation of Leverage**

| Particulars | Amount in ₹ |
|---|-------------|
| Sales | 20,00,000 |
| Less: Variable Cost | 12,00,000 |
| Contribution | 8,00,000 |
| Less: Fixed Cost | 5,00,000 |
| Earnings before Interest and Tax (EBIT) | 3,00,000 |
| Interest: (36,000 + 26,000) | 62,000 |
| Profit before Tax (PBT) | 2,38,000 |
| Tax | 71,400 |
| Profit after tax (PAT) | 1,66,600 |

$$\begin{aligned}
 \text{Operating Leverage (OL)} &= \text{Contribution/EBIT} \\
 &= ₹ 8,00,000/₹ 3,00,000 \\
 &= 2.67 \\
 \text{Financial Leverage (FL)} &= \text{EBIT/EBT} \\
 &= ₹ 3,00,000/(₹ 3,00,000 - ₹ 62,000) \\
 &= ₹ 3,00,000/₹ 2,38,000 \\
 &= 1.26 \\
 \text{Combined Leverage} &= \text{OL} \times \text{FL} \\
 &= 2.67 \times 1.26 = 3.36
 \end{aligned}$$

Chapter - 16 : Dividend Decisions

2024 - June [6] (b)

(a) **Gordon's approach**

$$P_0 = \frac{E(1-b)}{k_e - g} = \frac{9}{0.12 - 0.1024} = 9/0.0176 = ₹ 511.36$$

Where

P_0 = Price of equity share

E = Earnings per share

b = Retention Ratio or percentage of earnings retained

$1 - b$ = D/P Ratio, i.e., percentage of earnings distributed as dividends

CR or k_e = Capitalization rate of the firm or Cost of equity capital

br = Growth rate in $r = g$, i.e., rate of return on investment on an all-equity firm

$E(1 - b) = D$ = Dividend per share

where growth (g) = br

b = retention ratio = $\text{EPS} - \text{DPS} / \text{EPS} = 25 - 9 / 25 = 0.64$

Growth = $b \times r = 0.64 * 0.16 = 0.1024$

(b) **Walter's Approach**

$$P = \frac{D + (R/k_e)(E - D)}{k_e} = \frac{9 + 0.16/0.12(25 - 9)}{0.12} = \frac{9 + 0.16/0.12(25 - 9)}{0.12} = \frac{30.33}{0.12} = ₹ 252.78$$

Where, P = Market price per share

D = Dividend per share

R = Internal rate of return

E = Earnings per share

k = Cost of equity capitalization rate.

Chapter - 17 : Working Capital Management
2024 - June [6] (c)

Inventory Level Calculations

| Re-order Level | Maximum Usage × Maximum Re-order Period | |
|----------------|---|---------------------------|
| | A | B |
| Units | $4,500 \times 6 = 27,000$ | $4,500 \times 4 = 18,000$ |

| Maximum Level | Re-order Level + Re-order Quantity – (Minimum Usage × Minimum Reorder Period) | |
|---------------|---|---|
| | A | B |
| Units | $27,000 + 20,000 - (1,500 \times 4) = 41,000$ | $18,000 + 40,000 - (1,500 \times 2) = 55,000$ |

| Minimum Level | Re-order Level – (Normal Usage × Normal Re-order Period) | |
|---------------|--|-------------------------------------|
| | A | B |
| Units | $27,000 - (3,000 \times 5) = 12,000$ | $18,000 - (3,000 \times 3) = 9,000$ |

| Average Inventory | Minimum Level + $\frac{1}{2}$ Re-order Quantity | |
|-------------------|--|---|
| | A | B |
| Units | $12,000 + \frac{1}{2} \text{ of } 20,000 = 22,000$ | $9,000 + \frac{1}{2} \text{ of } 40,000 = 29,000$ |

Or

| Average Inventory | (Minimum Level + Maximum Level)/2 | |
|-------------------|-----------------------------------|---------------------------------|
| | A | B |
| Units | $(12,000 + 41,000) / 2 = 26,500$ | $(9,000 + 55,000) / 2 = 32,000$ |

2024 - June [6A] (Or) (i)

Concept of negative working capital is a sign of strong bargaining power. Negative working capital implies a situation where current liabilities are more than current assets.

Usually, a negative working capital is a sign that an entity maybe facing bankruptcy or serious financial problems.

Poor working capital management could lead to increased borrowing and late payments to creditors.

This could result in lower credit rating. Also, the entity may have to forego revenue growth opportunities due to lack of working capital.

Another circumstances where a company can have negative working capital is where inventory is sold and cash generated in quick time.

These are companies with the bargaining power to take advance against supply of goods or services or demand a slightly longer credit period from suppliers.

Negative working capital can be a sign of managerial efficiency in a business with low inventory and accounts receivable.

Note: Low working capital requirements also imply a possible higher return on capital employed.

Illustration:

Suppose Wal-Mart orders 500,000 copies of a DVD to Warner Brothers and they were supposed to pay within 30 days. What if by the sixth or seventh day, Wal-Mart had already put the DVDs on the shelves of its stores across the country? By the twentieth day, they may have sold all of the DVDs.

Here, Wal-Mart received the DVDs, shipped them to its stores, and sold them to the customer, all before they had paid Warner Brothers! If Wal-Mart can continue to do this with all of its suppliers, it doesn't really need to have enough cash on hand to pay all of its accounts payable. As long as the transactions are timed right, they can pay each bill as it comes due, maximizing their efficiency.

The bottom line is that a negative working capital can also be a sign of managerial efficiency in a business with low inventory and accounts receivable.

Chapter - 18 : Security Analysis
2024 - June [6] (d)

Relative Strength Index (RSI)

| Trading Session | Share Price in ₹ | Gain in ₹ | Loss in ₹ |
|-----------------|------------------|---------------------|---------------------|
| 1. | 4,344 | – | – |
| 2. | 4,254 | – | 90 |
| 3. | 4,211 | – | 43 |
| 4. | 4,308 | 97 | – |
| 5. | 4,487 | 179 | – |
| 6. | 4,213 | – | 274 |
| 7. | 4,240 | 27 | – |
| 8. | 4,112 | – | 128 |
| 9. | 4,061 | – | 51 |
| 10. | 4,414 | 353 | – |
| 11. | 4,030 | – | 384 |
| 12. | 4,336 | 306 | – |
| 13. | 4,230 | – | 106 |
| 14. | 4,392 | 162 | – |
| | | 1,124/6 ₹ 187.33 | 1,076/7 ₹ 153.71 |

$$RS = \frac{\text{Average Gain in Per Day}}{\text{Average Loss in Per Day}} = \frac{187.33}{153.71} = 1.219$$

$$RSI = 100 - (100/1 + RS) = 100 - (100/1 + 1.219) = 54.93$$

An RSI reading of 70 or above indicates an overbought situation whereas a reading of 30 or below indicates an oversold condition. Therefore, the share is not overbought as RSI is below 70.

2024 - June [6A] (Or) (ii)

Systematic Risk

Systematic risk is due to the impact of external factors on an organization.

Such factors are usually uncontrollable from an organization's point of view.

Systematic risk is a macro in nature as it affects a large number of organizations operating under a similar stream or same domain.

It cannot be planned by the organization.

In this way economic, political and sociological changes are sources of systematic risk.

Illustration: If an economy moves into recession or if there is a political upheaval, it will cause the prices of nearly all the securities, whether bond or equity to decline. Firms with high systematic risk tend to be those whose sales, profits and stock prices follow the general trend in the level of economic or stock market activity. These may include companies that deal in basic industrial goods like automobile manufactures.

Types of systematic risk:**1. Interest rate risk**

Interest-rate risk is the variation in the single period rates of return caused by the fluctuations in the market interest rate. It particularly affects debt securities as they carry the fixed rate of interest.

2. Market risk

Market risk is associated with consistent fluctuations seen in the trading price of any particular shares or securities. It arises due to rise or fall in the trading price of listed shares or securities in the stock market.

3. Purchasing power or inflationary risk

Purchasing power risk is also known as inflation risk. It is so, since it emanates from the fact that it affects a purchasing power adversely. It is not desirable to invest in securities during an inflationary period.

2024 - June [6A] (Or) (iii)**Price Rate of Change**

The Price Rate of Change is a momentum-based technical indicator that measures the percentage change in price between the current price and the price a certain number of periods ago.

The ROC indicator is plotted against zero, with the indicator moving upwards into positive territory if price changes are to the upside, and moving

into negative territory if price changes are to the downside.

Note: A rising ROC above zero indicates an uptrend in security prices whereas a falling ROC below zero indicates a downtrend in security prices.

The ROC will hover near zero indicating a consolidation in security price.

$$\text{ROC} = \frac{\text{Closing Price}_p - \text{Closing Price}_{p-n}}{\text{Closing Price}_{p-n}} \times 1,000$$

Where

Closing Price_p - Closing price of the most recent period

Closing Price_{p-n} - Closing price n periods before most recent period

Advance-Decline Ratio

The Ratio of number of stocks that increase to the number of stocks that have declined. If the ratio is more than one, trend is assumed to be bullish. If the ratio starts declining a change in trend is signaled.

Shuchita Prakashan (P) Ltd.

B-45/141, Street No. 5,
Guru Nanak Pura Laxmi Nagar,
Delhi - 110092

Visit us : www.scanneradda.com

