

ANSWERS

1. MULTIPLE CHOICE QUESTIONS

Select the correct alternative:

1. (4) **Explanation:** Accounting ratios are arithmetical expressions of accounting information or data. It means qualitative aspects such as quality of staff, managers, etc. are always ignored, as they cannot be recorded in the financial statements.
2. (3) **Explanation:** Liquidity of business means firm's ability to meet its current liabilities, *i.e.*, short-term financial obligations as they become due for payment.
3. (1) **Explanation:** Provision for Doubtful Debts is deducted from the amount of Sundry Debtors for calculating Current Ratio because that much amount is doubtful of recovery and the purpose of Current Ratio is to determine company's ability to meet its short-term financial obligations.
4. (2) **Explanation:** Loose Tools and Stores and Spares are not included in Inventories for calculating Current Ratio because they are held by the enterprise as a production tool and not for the purpose of converting them into Cash by selling.
5. (1) **Explanation:** Accounting ratios are calculated from the financial statements which are historical in nature and therefore, ignores price level changes. In inflationary situation, analysis of historical data becomes less effective.
6. (3) **Explanation:** Current Ratio = Current Assets/Current Liabilities = ₹ 2,70,000/₹ 1,80,000 = 1.5 : 1.

Working Note:

$$\begin{aligned}\text{Current Assets} &= \text{Trade Receivables} + \text{Inventories} + \text{Cash and Bank Balance} + \text{Other Current Assets} \\ &= ₹ 85,000 + ₹ 85,000^* + ₹ 78,000 + ₹ 22,000 = ₹ 2,70,000\end{aligned}$$

$$\begin{aligned}\text{Current Liabilities} &= \text{Bank Overdraft} + \text{Trade Payables} + \text{Other Current Liabilities} \\ &= ₹ 17,500 + ₹ 90,000 + ₹ 72,500 = ₹ 1,80,000.\end{aligned}$$

*Food items for sale in the aircraft come under Inventories.

Note: Loose tools are not added to Current Assets to compute Current Ratio.

7. (2) **Explanation:** Current Ratio = Current Assets/Current Liabilities = ₹ 2,18,500/₹ 95,000 = 2.3 : 1.

Working Note:

$$\begin{aligned}\text{Current Assets} &= \text{Sundry Debtors} + \text{Bills Receivable} - \text{Provision for Doubtful Debts} + \text{Inventories} + \text{Cash} \\ &\quad \text{and Bank Balance} + \text{Advance Tax} \\ &= ₹ 72,500 + ₹ 55,000 - ₹ 10,000 + ₹ 60,000 + ₹ 23,500 + ₹ 17,500 = ₹ 2,18,500.\end{aligned}$$

$$\text{Current Liabilities} = \text{Sundry Creditors} + \text{Bills Payable} + \text{Cash Credit} = ₹ 62,500 + ₹ 17,500 + ₹ 15,000 = ₹ 95,000.$$

Note: Provision for Doubtful Debts is deducted from the Sundry Debtors to calculate Current Ratio.

8. (1) **Explanation:** Current Ratio = Current Assets/Current Liabilities
= ₹ 8,10,000/₹ 4,50,000 = 1.8 : 1.

$$\begin{aligned}\text{Current Liabilities} &= \text{Total Debts} - \text{Long-term Debts} \\ &= ₹ 10,75,000 - ₹ 6,25,000 = ₹ 4,50,000\end{aligned}$$

$$\begin{aligned}\text{Current Assets} &= \text{Current Liabilities} + \text{Working Capital} \\ &= ₹ 4,50,000 + ₹ 3,60,000 = ₹ 8,10,000.\end{aligned}$$

9. (4) **Explanation:** Current Ratio = Current Assets/Current Liabilities
= ₹ 6,80,000/₹ 2,72,000 = 2.5 : 1

Working Note:

$$\begin{aligned}\text{Current Assets} &= \text{Total Assets}^* - \text{Non-current Assets} \\ &= ₹ 13,20,000 - ₹ 6,40,000 = ₹ 6,80,000\end{aligned}$$

$$\begin{aligned}\text{Current Liabilities} &= \text{Current Assets} - \text{Working Capital} \\ &= ₹ 6,80,000 - ₹ 4,08,000 = ₹ 2,72,000\end{aligned}$$

*Total Assets = Total of Equity and Liabilities = ₹ 13,20,000.

10. (3) **Explanation:** Current Ratio = Current Assets/Current Liabilities = ₹ 12,25,000/₹ 7,00,000 = 1.75 : 1

Working Note:

$$\begin{aligned} \text{Current Liabilities} &= \text{Total Liabilities}^* - \text{Long-term Debts} - \text{Shareholders' Funds} \\ &= ₹ 20,00,000 - ₹ 5,75,000 - ₹ 7,25,000 = ₹ 7,00,000 \end{aligned}$$

$$\begin{aligned} \text{Current Assets} &= \text{Current Liabilities} + \text{Working Capital} \\ &= ₹ 7,00,000 + ₹ 5,25,000 = ₹ 12,25,000. \end{aligned}$$

*Total Liabilities and Shareholders' Funds = Total Assets = ₹ 20,00,000.

11. (1) **Explanation:** Cheque issued to a creditor will increase Current Ratio because Current Asset (*i.e.*, Cash and Bank Balance) and Current Liability (*i.e.*, Creditors) both will decrease by the same amount.

For example, Current Assets = ₹ 1,500 and Current Liabilities = ₹ 1,000, yielding a Current Ratio of 1.5 : 1. If a cheque of say, ₹ 500 is issued to a creditor, Current Assets become ₹ 1,000 and Current Liabilities become ₹ 500. Current Ratio will be 2 : 1 now (higher than 1.5 : 1).

12. (1) **Explanation:** Redemption of 10% Debentures will increase Current Ratio because redemption of debentures will reduce both Current Assets (Cash or Bank) and Current Liabilities by the same amount. Debentures redeemable are shown as Current Liability.

13. (3) **Explanation:** Redemption of 10% Debentures will not change the Current Ratio because redemption of debentures will reduce both Current Assets (Cash or Bank) and Current Liabilities by the same amount. Debentures redeemable are shown as Current Liability.

For example, Current Assets = ₹ 1,500 and Current Liabilities = ₹ 1,500, yielding a Current Ratio of 1 : 1. After redemption of debentures of ₹ 500 in cash, Current Assets are ₹ 1,000 and Current Liabilities are ₹ 1,000. Current Ratio will be 1 : 1.

14. (2) **Explanation:** A Bill Payable discharged on maturity will decrease Current Ratio because Current Asset (*i.e.*, Cash and Bank Balance) and Current Liability (*i.e.*, Bills Payable) both will decrease by the same amount.

For example, Current Assets = ₹ 80,000 and Current Liabilities = ₹ 1,00,000, thus, Current Ratio is 0.8 : 1. After bill payable of ₹ 20,000 is paid, Current Assets are ₹ 60,000 and Current Liabilities are ₹ 80,000. Current Ratio will be 0.75 : 1 now (lower than 0.8 : 1).

15. (2) **Explanation:** Purchase of Stores and Spares on credit will decrease Current Ratio since Stores and Spares are not included in Inventories (Current Asset) for computing Current Ratio. On the other hand, Creditors for Stores and Spares (Current Liabilities) will increase.

For example, Current Assets = ₹ 80,000 and Current Liabilities = ₹ 1,00,000, thus, Current Ratio is 0.8 : 1. After purchase of Loose Tools of ₹ 5,000 on credit, Current Assets are same ₹ 80,000 and Current Liabilities are ₹ 1,05,000. Current Ratio will be 0.76 : 1 now (lower than 0.8 : 1).

Note: Loose Tools are not included in inventories for calculating Current Ratio. Hence, Current Assets will not change.

16. (3) **Explanation:** Bills Receivable discounted dishonored on due date will result into increase in Debtors (*i.e.*, Current Asset) and decrease in Cash and Bank Balance (*i.e.*, another Current Asset) by the same amount. Thus, Current Ratio will not change.

17. (3) **Explanation:** Purchase of goods will increase the inventories (Current Asset) by ₹ 75,000 and reduce Cash and Bank Balance (another Current Asset) by ₹ 20,000. In effect Current Assets will increase by ₹ 55,000. While, Current Liabilities will increase by the amount of credit purchase, *i.e.*, ₹ 55,000.

$$\text{Current Assets} = ₹ 2,15,000 + ₹ 55,000 = ₹ 2,70,000$$

$$\text{Current Liabilities} = ₹ 1,05,000 + ₹ 55,000 = ₹ 1,60,000$$

$$\text{Current Ratio} = \text{Current Assets/Current Liabilities}$$

$$= ₹ 2,70,000/₹ 1,60,000 = 1.69 : 1.$$

18. (4) **Explanation:** Payment of Bills Payable will reduce the Cash/Bank Balance (Current Asset) by ₹ 30,000. And also, Current Liabilities will decrease by the amount paid, *i.e.*, ₹ 30,000.

$$\text{Current Assets} = ₹ 2,62,000 - ₹ 30,000 = ₹ 2,32,000$$

$$\text{Current Liabilities} = ₹ 70,000 - ₹ 30,000 = ₹ 40,000$$

$$\text{Current Ratio} = \text{Current Assets/Current Liabilities}$$

$$= ₹ 2,32,000/₹ 40,000 = 5.8 : 1.$$

19. (2) **Explanation:** Current Ratio = Current Assets/Current Liabilities
 $= 3,00,000/\text{₹ } 3,00,000 = 1 : 1$
 Current Assets = ₹ 3,00,000 (Amounts of Debtors and Inventories to be ignored as Total Current Assets are separately given in the question)
 Current Liabilities = ₹ 3,00,000 (Creditors ₹ 2,90,000 + Other Current Liabilities ₹ 10,000).

20. (3) **Explanation:** Current Ratio = Current Assets/Current Liabilities
 $2.5 = \text{Current Assets}/\text{₹ } 3,60,000$
 Current Assets = ₹ 9,00,000 (₹ 3,60,000 × 2.5)
 Payment of interim dividend (₹ 1,80,000) will reduce both Current Assets and Current Liabilities by the same amount.

Thus, Current Ratio = Current Assets/Current Liabilities
 $= (\text{₹ } 9,00,000 - \text{₹ } 1,80,000)/(\text{₹ } 3,60,000 - \text{₹ } 1,80,000)$
 $= \text{₹ } 7,20,000/\text{₹ } 1,80,000 = 4 : 1.$

21. (4) **Explanation:** Current Ratio (after purchase of machinery) = Current Assets/Current Liabilities
 $2 : 1 = \text{Current Assets}/\text{₹ } 6,24,000$
 Current Assets = ₹ 12,48,000

Since the machinery is purchased against cash it means, it would have reduced Current Assets (*i.e.*, Cash and Bank Balance).

Thus, prior to the transaction,

Current Assets = ₹ 12,48,000 + ₹ 52,000 = ₹ 13,00,000
 Current Ratio = Current Assets/Current Liabilities
 $= \text{₹ } 13,00,000/\text{₹ } 6,24,000 = 2.08 : 1.$

22. (2) **Explanation:** Current Ratio = Current Assets/Current Liabilities
 $3 = \text{₹ } 12,15,000/\text{Current Liabilities}$
 Current Liabilities = ₹ 4,05,000

Old computer (Fixed Asset) was given in settlement of a Current Liability (*i.e.*, Creditors), it means, it would have reduced Current Liability (*i.e.*, Creditors) and will not change Current Assets.

Thus, prior to the transaction, Current Liabilities = ₹ 4,05,000 + ₹ 15,000 = ₹ 4,20,000

Current Ratio = Current Assets/Current Liabilities
 $= \text{₹ } 12,15,000/\text{₹ } 4,20,000 = 2.89 : 1.$

23. (1) **Explanation:** Inventories, Prepaid Expenses and Advance Tax are excluded from liquid assets to calculate Liquid Ratio because it takes time before inventories can be converted into cash while prepaid expenses and advance tax are expenses that have been paid in advance hence cannot be converted into cash.

24. (1) **Explanation:** Liquid Ratio of the company shows short-term financial position. If the Liquid Ratio is 1 : 1, it shows satisfactory liquidity position and it means that the company will be able to meet its short-term liabilities as and when they become due for payment.

25. (3) **Explanation:** Current Assets = Liquid Assets + Inventories (*less* Loose Tools) + Prepaid Expenses
 $= \text{₹ } 84,000 + (\text{₹ } 35,000 - \text{₹ } 14,000) + \text{₹ } 15,000 = \text{₹ } 1,20,000$

Working Capital = Current Assets – Current Liabilities

Current Liabilities = Current Assets – Working Capital
 $= \text{₹ } 1,20,000 - \text{₹ } 60,000 = \text{₹ } 60,000$

Liquid Ratio = Liquid Assets/Current Liabilities
 $= \text{₹ } 84,000/\text{₹ } 60,000 = 1.4 : 1.$

26. (2) **Explanation:** Liquid Ratio = Liquid Assets/Current Liabilities
 $= ₹ 4,50,000/₹ 3,00,000 = 1.5 : 1.$

Current Assets = Total Assets – Non-current Assets
 $= ₹ 12,75,000 – ₹ 6,82,000 = ₹ 5,93,000$

Liquid Assets = Current Assets – Inventories – Advance Tax
 $= ₹ 5,93,000 – ₹ 1,30,500 – ₹ 12,500 = ₹ 4,50,000.$

Current Liabilities = Current Assets – Working Capital
 $= ₹ 6,50,000 – ₹ 3,50,000 = ₹ 3,00,000.$

27. (3) **Explanation:** Current Ratio = Current Assets/Current Liabilities = 1.2 : 1
 Working Capital = ₹ 1,60,000; (Let Current Liabilities be x ; Current Assets = $1.2x$)
 Working Capital = Current Assets – Current Liabilities
 $₹ 1,60,000 = 1.2x – x,$
 $x = ₹ 8,00,000$ (Current Liabilities)
 Current Assets = $1.2 \times ₹ 8,00,000 = ₹ 9,60,000$
 Thus, Liquid Assets = Current Assets – Inventories
 $= ₹ 9,60,000 – ₹ 2,40,000 = ₹ 7,20,000.$

Note: Accrued Interest is not deducted from Current Assets to compute Liquid Assets as it is a Liquid Asset.

28. (1) **Explanation:** Liquid Ratio = Liquid Assets/Current Liabilities, *i.e.*, $0.9 = ₹ 2,70,000/\text{Current Liabilities}$, therefore,
 Current Liabilities = ₹ 3,00,000
 After discharging liability of ₹ 60,000 towards Bills Payable, it will reduce both Liquid Assets and Current Liabilities by the same amount.
 Thus, Liquid Ratio = Liquid Assets/Current Liabilities = $(₹ 2,70,000 – ₹ 60,000)/(₹ 3,00,000 – ₹ 60,000) = ₹ 2,10,000/₹ 2,40,000 = 0.88 : 1.$

29. (3) **Explanation:** Liquid Ratio = Liquid Assets/Current Liabilities
 $= ₹ 8,80,000/₹ 4,40,000 = 2 : 1.$

Working Note:

Liquid Ratio = Liquid Assets/Current Liabilities
 $2.2 = ₹ 8,80,000/\text{Current Liabilities}$
 Current Liabilities = ₹ 4,00,000

Since old machinery is given in settlement of a Current Liability (*i.e.*, Creditors), it means, Current Liability (*i.e.*, Creditors) is reduced by ₹ 40,000.

Thus, before the transaction Current Liabilities = ₹ 4,00,000 + ₹ 40,000 = ₹ 4,40,000.

30. (3) **Explanation:** Inventories = Current Assets – Liquid Assets – Prepaid Expenses
 $= ₹ 4,50,000 – ₹ 1,44,000 – ₹ 36,000 = ₹ 2,70,000.$

Working Note:

Current Liabilities = ₹ 1,80,000
 Liquid Ratio = Liquid Assets/Current Liabilities, *i.e.*, $0.8 = \text{Liquid Assets}/₹ 1,80,000$
 Therefore, Liquid Assets = ₹ 1,44,000
 Current Assets = Current Ratio \times Current Liabilities = $2.5 \times ₹ 1,80,000 = ₹ 4,50,000.$

31. (4) **Explanation:** Inventories = Current Assets – Liquid Assets – Advance Tax
 $= ₹ 5,60,000 – ₹ 1,80,000 – ₹ 30,000 = ₹ 3,50,000.$

Working Note:

Current Liabilities = ₹ 2,00,000
 Liquid Ratio = Liquid Assets/Current Liabilities, *i.e.*, $0.9 = \text{Liquid Assets}/₹ 2,00,000$
 Liquid Assets = ₹ 1,80,000
 Current Assets = Current Ratio \times Current Liabilities
 $= 2.8 \times ₹ 2,00,000 = ₹ 5,60,000$

Note: Accrued Interest is not deducted from Current Assets to compute Inventories as it is already included in Liquid Assets.

32. (1) **Explanation:** Cheque issued to a vendor of furniture will increase Liquid Ratio because Liquid Asset (*i.e.*, Cash and Bank balance) and Current Liability (*i.e.*, vendor account) both will decrease by the same amount.
Note: Vendor of furniture is taken to be for short-term period, *i.e.*, a current liability.
33. (3) **Explanation:** Bills Receivable discounted dishonoured on due date will result into increase in Debtors (*i.e.*, Liquid Asset) and decrease in Cash and Bank Balance (*i.e.*, another Liquid Asset) by the same amount. Thus, it will not have any effect on Liquid Ratio.
34. (3) **Explanation:** Liquid Ratio is 1 : 1. Bills Receivable endorsed to a creditor dishonoured on due date will result into increase in both Debtors (*i.e.*, Liquid Asset) and Creditors (*i.e.*, Current Liabilities) by the same amount. Thus, it will not have any effect on Liquid Ratio.
35. (2) **Explanation:** Payment of Insurance premium in advance will decrease Liquid Ratio because payment of insurance premium in advance will reduce Liquid Assets (*i.e.*, Cash and Bank Balance) and Current Liabilities will remain unchanged.
Note: Prepaid Expenses (Insurance, in this case) is not a liquid asset.
36. (1) **Explanation:** Issue of fully paid equity shares will increase Liquid Ratio because it will increase Liquid Assets (*i.e.*, Cash and Bank Balance) and Current Liabilities will remain unchanged.
37. (2) **Explanation:** Payment of advance tax will decrease Quick Ratio because it will result into decrease in Liquid Assets (*i.e.*, Cash and Bank Balance) and Current Liabilities will remain unchanged.
38. (2) **Explanation:** Solvency of a business means the firm's ability to meet its non-current liabilities, *i.e.*, long-term financial obligations as and when they become due for payment.
39. (1) **Explanation:** Long-term Provisions are in the nature of Long-term Liability. Although the amount may be different at the time settlement of liability yet they are included in external equities, *i.e.*, external debts.
40. (3) **Explanation:** Long-term Borrowing which is payable within 12 months or within the period of Operating Cycle from the date of Balance Sheet is shown as Current Maturities of Long-term Debts under Short-term Borrowings under the main head Current Liabilities. Thus, it is not included in Long-term Debts for computing Debt to Equity Ratio.
41. (2) **Explanation:** A high Debt to Equity Ratio means that the enterprise is depending more on borrowings or external debts in comparison to Shareholders' Funds. In effect, lenders are at higher risk and have lower safety cover.
42. (1) **Explanation:** Debt to Equity Ratio = Debt/Equity (Shareholders' Funds)
= ₹ 2,06,250/₹ 82,500 = 2.5 : 1.

Working Note:

$$\text{Debt} = \text{Debentures} + \text{Provision for Gratuity} = ₹ 1,21,250 + ₹ 85,000 = ₹ 2,06,250.$$

$$\begin{aligned} \text{Equity/Shareholders' Funds} &= \text{Share Capital} + \text{General Reserve} + \text{Surplus, } i.e., \text{ Balance in Statement of Profit \& Loss} \\ &= ₹ 77,500 + ₹ 27,500 - ₹ 22,500^* = ₹ 82,500. \end{aligned}$$

*Debit balance in Surplus, *i.e.*, Balance in Statement of Profit & Loss means negative balance or loss.

Note: Provision for Gratuity is Long-term Provision, hence it is added to Long-term debts.

43. (4) **Explanation:** Debt to Equity Ratio = Debt/Equity (Shareholders' Funds)
= ₹ 7,20,000/₹ 4,00,000 = 1.8 : 1.

Working Note:

$$\begin{aligned} \text{Debt} &= \text{Total Outside Liabilities} - \text{Current Liabilities} \\ &= ₹ 12,00,000 - ₹ 4,80,000 = ₹ 7,20,000 \end{aligned}$$

$$\begin{aligned} \text{Current Assets} &= \text{Current Liabilities} + \text{Working Capital} \\ &= ₹ 4,80,000 + ₹ 3,20,000 = ₹ 8,00,000 \end{aligned}$$

$$\begin{aligned} \text{Total Assets} &= \text{Fixed Assets} + \text{Non-current Investments} + \text{Current Assets} \\ &= ₹ 6,50,000 + ₹ 1,50,000 + ₹ 8,00,000 = ₹ 16,00,000 \end{aligned}$$

$$\begin{aligned} \text{Equity (Shareholders' Funds)} &= \text{Total Liabilities}^* - \text{Total Debts} \\ &= ₹ 16,00,000 - ₹ 12,00,000 = ₹ 4,00,000. \end{aligned}$$

*Total Liabilities = Total Assets = ₹ 16,00,000.

Note: Long-term Provisions is not added to Debt as it is already included in Total Outside Liabilities.

44. (1) **Explanation:** Debt to Equity Ratio = Debt/Equity (Shareholders' Funds)
 = ₹ 12,00,000/₹ 7,50,000 = 1.6 : 1.

Working Note:

$$\begin{aligned} \text{Debt} &= \text{Long-term Loans} + \text{Debentures} + \text{Long-term Provisions} \\ &= ₹ 5,75,000 + ₹ 3,75,000 + ₹ 2,50,000 = ₹ 12,00,000. \end{aligned}$$

$$\begin{aligned} \text{Total Assets} &= \text{Fixed Assets(Net)} + \text{Non-current Investments} + \text{Current Assets} \\ &= ₹ 14,00,000 - ₹ 1,50,000 + ₹ 4,10,000 + ₹ 4,40,000 = ₹ 21,00,000. \end{aligned}$$

$$\begin{aligned} \text{Equity (Shareholders' Funds)} &= \text{Total Liabilities*} - \text{Debt} - \text{Current Liabilities} \\ &= ₹ 21,00,000 - ₹ 12,00,000 - ₹ 1,50,000 = ₹ 7,50,000. \end{aligned}$$

$$\text{*Total Liabilities} = \text{Total Assets} = ₹ 21,00,000.$$

45. (2) **Explanation:** Issue of fully paid 9% Preference Shares at a premium will decrease Debt to Equity Ratio because it will increase Equity (Shareholders' Funds) but Debt will remain unchanged.
46. (1) **Explanation:** Issue of 10% Debentures to a vendor in consideration other than cash will increase Debt and Equity or Shareholders' Funds will remain unchanged. Thus, Debt to Equity Ratio will increase.
47. (3) **Explanation:** Issue of Bonus shares will not change Debt to Equity Ratio because neither Debt nor Equity or Shareholders' Funds is affected because there is only conversion of accumulated profits into share capital.
48. (4) **Explanation:** Total Assets to Debt Ratio = Total Assets/Debt (Long-term Debt)
 = ₹ 16,00,000/₹ 8,00,000 = 2 : 1.

Working Note:

$$\text{Debt} = \text{Total Debts} - \text{Current Liabilities} = ₹ 12,75,000 - ₹ 4,75,000 = ₹ 8,00,000.$$

49. (1) **Explanation:** Total Assets to Debt Ratio = Total Assets/Debt
 = ₹ 18,90,000/₹ 9,45,000 = 2 : 1.

Working Note:

$$\begin{aligned} \text{Total Assets or Total Liabilities} &= \text{Shareholders' Funds} + \text{Total Debts} \\ &= ₹ 4,50,000 + ₹ 14,40,000 = ₹ 18,90,000. \end{aligned}$$

$$\text{Debt} = \text{Total Debts} - \text{Current Liabilities} = ₹ 15,20,000 - ₹ 5,75,000 = ₹ 9,45,000.$$

50. (4) **Explanation:** Total Assets to Debt Ratio = Total Assets/Debt
 = ₹ 28,00,000/₹ 14,00,000 = 2 : 1.

Working Note:

$$\begin{aligned} \text{Debt} &= \text{Long-term Loans} + \text{Debentures} + \text{Long-term Provisions} \\ &= ₹ 5,00,000 + ₹ 7,20,000 + ₹ 1,80,000 = ₹ 14,00,000. \end{aligned}$$

$$\begin{aligned} \text{Total Assets} &= \text{Fixed Assets (Net)} + \text{Non-current Investments} + \text{Current Assets} \\ &= ₹ 24,00,000 - ₹ 3,30,000 + ₹ 5,60,000 + ₹ 1,70,000 = ₹ 28,00,000. \end{aligned}$$

51. (2) **Explanation:** Total Assets to Debt Ratio = Total Assets/Debt
 = ₹ 16,50,000/₹ 5,00,000 = 3.3 : 1.

Working Note:

$$\begin{aligned} \text{Debt} &= \text{Total Debts} - \text{Current Liabilities} \\ &= ₹ 11,75,000 - ₹ 6,75,000 = ₹ 5,00,000. \end{aligned}$$

$$\begin{aligned} \text{Current Assets} &= \text{Current Liabilities} + \text{Working Capital} \\ &= ₹ 6,75,000 + ₹ 3,25,000 = ₹ 10,00,000. \end{aligned}$$

$$\begin{aligned} \text{Total Assets} &= \text{Fixed Assets} + \text{Current Assets} \\ &= ₹ 6,50,000 + ₹ 10,00,000 = ₹ 16,50,000. \end{aligned}$$

52. (4) **Explanation:** Proprietary Ratio shows the proportion of total assets financed by Proprietors' Funds. Thus, lower ratio implies lower safety margin and greater risk to unsecured lenders and creditors.

53. (2) **Explanation:** Proprietary Ratio = Proprietors' Funds/Total Assets
 = ₹ 5,60,000/₹ 13,60,000 = 0.41 : 1.

Working Note:

$$\begin{aligned} \text{Proprietors' Funds} &= \text{Share Capital} + \text{General Reserve} + \text{Surplus, i.e., Balance in Statement of Profit \& Loss} \\ &= ₹ 4,84,000 + ₹ 30,000 + ₹ 46,000 = ₹ 5,60,000. \end{aligned}$$

$$\begin{aligned} \text{Total Assets or Liabilities} &= \text{Debentures} + \text{Long-term Provisions} + \text{Current Liabilities} + \text{Proprietors' Funds} \\ &= ₹ 3,45,000 + ₹ 3,05,000 + ₹ 1,50,000 + ₹ 5,60,000 = ₹ 13,60,000. \end{aligned}$$

54. (4) **Explanation:** Proprietary Ratio = Proprietors' Funds/Total Assets
 = ₹ 6,60,000/₹ 11,00,000 = 0.6 : 1.

Working Note:

$$\begin{aligned} \text{Current Assets} &= \text{Current Liabilities} + \text{Working Capital} \\ &= ₹ 3,75,000 + ₹ 2,75,000 = ₹ 6,50,000. \end{aligned}$$

$$\begin{aligned} \text{Total Assets} &= \text{Fixed Assets} + \text{Current Assets} \\ &= ₹ 4,50,000 + ₹ 6,50,000 = ₹ 11,00,000. \end{aligned}$$

$$\begin{aligned} \text{Proprietors' Funds} &= \text{Total Liabilities*} - \text{Total Debts} \\ &= ₹ 11,00,000 - ₹ 4,40,000 = ₹ 6,60,000. \end{aligned}$$

$$\text{*Total Liabilities} = \text{Total Assets} = ₹ 11,00,000.$$

55. (1) **Explanation:** Proprietary Ratio = Proprietors' Funds/Total Assets
 = ₹ 10,87,500/₹ 19,50,000 = 0.56 : 1.

Working Note:

$$\text{Total Assets} = \text{Debt} \times 2.5 = ₹ 7,80,000 \times 2.5 = ₹ 19,50,000$$

$$\begin{aligned} \text{Proprietor's Funds} &= \text{Equity Share Capital} + \text{Preference Share Capital} + \text{Surplus, i.e., Balance in Statement of Profit \& Loss} \\ &= (₹ 7,80,000 \times 0.5) + (₹ 7,80,000 \times 0.5 \times 25\%) + (₹ 10,00,000 - 40\% \text{ of } ₹ 10,00,000) \\ &= ₹ 3,90,000 + ₹ 97,500 + ₹ 6,00,000 = ₹ 10,87,500. \end{aligned}$$

56. (3) **Explanation:** Proprietary Ratio = Proprietors' Funds/Total Assets
 = ₹ 12,72,000/₹ 18,00,000 = 0.71 : 1.

Working Note:

$$\text{Total Assets} = \text{Debts} \times 2.25 = ₹ 8,00,000 \times 2.25 = ₹ 18,00,000.$$

$$\begin{aligned} \text{Proprietor's Funds} &= \text{Equity Share Capital} + \text{Preference Share Capital} + \text{Surplus, i.e., Balance in Statement of Profit \& Loss} \\ &= (₹ 8,00,000 \times 0.6) + (₹ 8,00,000 \times 0.6 \times 15\%) + (₹ 12,00,000 - 40\% \text{ of } ₹ 12,00,000) \\ &= ₹ 4,80,000 + ₹ 72,000 + ₹ 7,20,000 = ₹ 12,72,000. \end{aligned}$$

57. (1) **Explanation:** Redemption of 10% Debentures will increase the Proprietary Ratio as Proprietors' Funds will remain unchanged while Total Assets will reduce.

58. (4) **Explanation:** Interest Coverage Ratio establishes relationship between Net Profit before Interest and Tax and Interest on Long-term Debts. Thus, its objective is to determine the amount of profit available to cover interest on long-term debts.

59. (1) **Explanation:** Interest Coverage Ratio = Net Profit before Interest and Tax/Interest on Long-term Debts
 = ₹ 5,17,500/₹ 57,500 = 9 Times.

Working Note:

$$\text{Interest on Long-term Debts} = \text{Interest on 10\% Debentures} = 10\% \text{ of } ₹ 5,75,000 = ₹ 57,500.$$

$$\begin{aligned} \text{Net Profit before Interest and Tax} &= \text{Net Profit before Tax} + \text{Interest on Long-term Debts} \\ &= ₹ 4,60,000 + ₹ 57,500 = ₹ 5,17,500. \end{aligned}$$

60. (3) **Explanation:** Interest Coverage Ratio = Net Profit before Interest and Tax/Interest on Long-term Debts = ₹ 14,30,000/₹ 1,30,000 = 11 Times.

Working Note:

$$\begin{aligned}\text{Interest on Long-term Debts} &= \text{Interest on 10\% Debentures} \\ &= 10\% \text{ of } ₹ 13,00,000 = ₹ 1,30,000.\end{aligned}$$

$$\begin{aligned}\text{Net Profit before Interest and Tax} &= \text{Net Profit before Tax}^* + \text{Interest on Long-term Debts} \\ &= ₹ 13,00,000 + ₹ 1,30,000 = ₹ 14,30,000.\end{aligned}$$

$$*\text{Net Profit before Tax} = ₹ 10,40,000 \times ₹ 100/₹ 80 = ₹ 13,00,000$$

(Let Net Profit before Tax ₹ 100; Tax ₹ 20; Net Profit after Tax ₹ 80).

61. (2) **Explanation:** Inventory Turnover Ratio = Cost of Revenue from Operations/Average Inventory = ₹ 13,95,000/₹ 1,55,000 = 9 Times.

Working Notes:

$$\begin{aligned}\text{Cost of Revenue from Operations} &= \text{Opening Inventory} + \text{Purchases (Net)} + \text{Direct Expenses} - \text{Closing Inventory} \\ &= ₹ 1,35,000 + ₹ 12,70,000 + ₹ 1,65,000^* - ₹ 1,75,000 = ₹ 13,95,000.\end{aligned}$$

$$\begin{aligned}\text{Average Inventory} &= (\text{Opening Inventory} + \text{Closing Inventory})/2 \\ &= (₹ 1,35,000 + ₹ 1,75,000)/2 = ₹ 1,55,000.\end{aligned}$$

$$*\text{Direct Expenses} = \text{Carriage Inwards} + \text{Wages} = ₹ 50,000 + ₹ 1,15,000 = ₹ 1,65,000.$$

62. (2) **Explanation:** Inventory Turnover Ratio = Cost of Revenue from Operations (COGS)/Average Inventory = ₹ 6,00,000/₹ 1,20,000 = 5 Times.

Working Notes:

$$\begin{aligned}\text{Cost of Revenue from Operations} &= \text{Revenue from Operations} - \text{Gross Profit} \\ &= ₹ 8,00,000 - ₹ 2,00,000 \text{ (i.e., 25\% of } ₹ 8,00,000) = ₹ 6,00,000.\end{aligned}$$

$$\begin{aligned}\text{Closing Inventory} &= \text{Opening Inventory} + \text{Purchases of Stock-in-Trade} - \text{Cost of Revenue from Operations} \\ &= ₹ 60,000 + ₹ 7,20,000 - ₹ 6,00,000 = ₹ 1,80,000.\end{aligned}$$

$$\begin{aligned}\text{Average Inventory} &= (\text{Opening Inventory} + \text{Closing Inventory})/2 \\ &= (₹ 60,000 + ₹ 1,80,000)/2 = ₹ 1,20,000.\end{aligned}$$

63. (2) **Explanation:** Inventory Turnover Ratio = Cost of Revenue from Operations/Average Inventory = ₹ 4,80,000/Average Inventory = 6

$$\text{Average Inventory} = ₹ 80,000.$$

Let Opening Inventory be x ; Closing Inventory $3x$, therefore,

$$\begin{aligned}\text{Average Inventory} &= (\text{Opening Inventory} + \text{Closing Inventory})/2 \\ ₹ 80,000 &= (x + 3x)/2\end{aligned}$$

$$\text{Therefore, } x = ₹ 40,000.$$

$$x = ₹ 40,000 \text{ (Opening Inventory); Closing Inventory} = 3x = ₹ 1,20,000.$$

64. (3) **Explanation:** Cost of Revenue from Operations = Revenue from operations – Gross Profit = ₹ 15,00,000 – 20% of ₹ 15,00,000 = ₹ 12,00,000

$$\begin{aligned}\text{Inventory Turnover Ratio} &= \text{Cost of Revenue from Operations/Average Inventory} \\ 8 &= ₹ 12,00,000/\text{Average Inventory}\end{aligned}$$

$$\text{Average Inventory} = ₹ 1,50,000$$

Let Opening Inventory be x

$$\text{Closing Inventory} = x - ₹ 40,000$$

$$\begin{aligned}\text{Average Inventory} &= (\text{Opening Inventory} + \text{Closing Inventory})/2 \\ ₹ 1,50,000 &= (x + x - ₹ 40,000)/2\end{aligned}$$

$$2x = ₹ 3,00,000 + ₹ 40,000$$

$$x = ₹ 1,70,000 \text{ (Opening Inventory);}$$

$$\text{Closing Inventory} = x - ₹ 40,000 = ₹ 1,30,000.$$

65. (3) **Explanation:** Provision for Doubtful Debts is not deducted from the amount of Sundry Debtors for calculating Trade Receivable Turnover Ratio because its purpose is to calculate number of days for which Credit Revenue from Operations is tied up, i.e., invested in Trade Receivable.

66. (1) **Explanation:** Trade Receivables Turnover Ratio = Credit Revenue from Operations/Average Trade Receivables
 $= ₹ 9,90,000/₹ 1,65,000 = 6 \text{ Times.}$

Working Note:

Credit Revenue from Operations = Total Revenue from Operations – Cash Revenue from Operations
 $= ₹ 14,50,000 - ₹ 4,60,000 = ₹ 9,90,000.$

Average Trade Receivables = (Opening Trade Receivables + Closing Trade Receivables)/2
 $= (₹ 1,55,000 + ₹ 1,75,000)/2 = ₹ 1,65,000.$

Note: Provision for Doubtful Debts is not deducted from Trade Receivables to calculate Trade Receivables Turnover Ratio.

67. (4) **Explanation:** Trade Receivables Turnover Ratio = Credit Revenue from Operations/Average Trade Receivables
 $8 = \text{Credit Revenue from Operations}/₹ 1,00,000^*$

Credit Revenue from Operations = ₹ 8,00,000.

Cash Revenue from Operations = 25% of Credit Revenue from Operations = 25% of ₹ 8,00,000
 $= ₹ 2,00,000.$

Working Note:

*Average Trade Receivables or Debtors = (Opening Debtors + Closing Debtors)/2
 $= (₹ 65,000 + ₹ 1,35,000)/2 = ₹ 1,00,000.$

68. (2) **Explanation:** Trade Receivables Turnover Ratio = Credit Revenue from Operations/Average Trade Receivables
 $5 = ₹ 8,50,000/\text{Average Trade Receivables}$

Average Trade Receivables = ₹ 1,70,000

Let Opening Trade Receivables be x

Closing Trade Receivables = $x + ₹ 20,000$

Average Trade Receivables = (Opening Trade Receivables + Closing Trade Receivables)/2

$₹ 1,70,000 = (x + x + ₹ 20,000)/2$

$2x = ₹ 3,40,000 - ₹ 20,000$

$x = ₹ 1,60,000$ (**Opening Trade Receivables**)

Closing Trade Receivables = $x + ₹ 20,000 = ₹ 1,80,000.$

69. (1) **Explanation:** Trade Receivables Turnover Ratio = Credit Revenue from Operations/Average Trade Receivables
 $= ₹ 36,00,000/₹ 12,00,000^* = 3 \text{ Times.}$

Average Collection Period = 12/Trade Receivables Turnover Ratio
 $= 12/3 = 4 \text{ months.}$

*In the absence of instructions, Debtors and Bills Receivables are taken as Average Trade Receivables.

70. (4) **Explanation:** Trade Receivables Turnover Ratio = Credit Revenue from Operations/Average Trade Receivables
 $6 = ₹ 9,60,000/\text{Average Trade Receivables}$

Average Trade Receivables = ₹ 1,60,000

Let Opening Trade Receivables be x

Closing Trade Receivables = $x - ₹ 40,000$

Average Trade Receivables = (Opening Trade Receivables + Closing Trade Receivables)/2

$₹ 1,60,000 = (x + x - ₹ 40,000)/2.$

$2x = ₹ 3,20,000 + ₹ 40,000.$

$x = ₹ 1,80,000$ (Opening Trade Receivables)

Closing Trade Receivables = $x - ₹ 40,000$

$= ₹ 1,40,000.$

71. (3) **Explanation:** Trade Payables Turnover Ratio = Credit Purchases/Average Payables
 = (₹ 18,00,000 – ₹ 3,00,000)/₹ 3,00,000* = 5 Times.
 Average Payment Period = 12/Trade Payables Turnover Ratio
 = 12/5 = 2.4 months.

*In the absence of instructions Creditors and Bills Payables are taken as Average Trade Payables.

72. (3) **Explanation:** Working Capital Turnover Ratio = Cost of Revenue from Operations/Working Capital
 = ₹ 11,20,000/₹ 2,80,000 = 4 Times.

Working Note:

Working Capital = Current Assets – Current Liabilities
 = ₹ 4,95,000 – ₹ 2,15,000 = ₹ 2,80,000.

Note: In the absence of Revenue from Operations, Working Capital Turnover Ratio is calculated on the basis of Cost of Revenue from Operations.

73. (2) **Explanation:** Working Capital Turnover Ratio = Revenue from Operations/Working Capital
 = ₹ 45,00,000/₹ 4,50,000 = 10 Times.

Working Note:

Gross Profit 25% on Cost = ₹ 9,00,000 (Let Cost be ₹ 100; Gross Profit ₹ 25; Sales ₹ 125)
 Sales (Revenue from Operations) = ₹ 9,00,000 × ₹ 125/₹ 25 = ₹ 45,00,000
 Working Capital = Current Assets – Current Liabilities
 = ₹ 9,00,000* – ₹ 4,50,000 = ₹ 4,50,000.

*50% of Current Assets = Current Liabilities = ₹ 4,50,000; Current Assets = ₹ 9,00,000.

74. (2) **Explanation:** Working Capital Turnover Ratio = Revenue from Operations/Working Capital
 = ₹ 30,00,000/₹ 3,00,000 = 10 Times.

Working Note:

Gross Profit 20% on Cost = ₹ 5,00,000
 Cost of Revenue from Operations = ₹ 5,00,000 × 100/20 = ₹ 25,00,000
 Sales (Revenue from Operations) = Cost of Revenue from Operations + Gross Profit
 = ₹ 25,00,000 + ₹ 5,00,000 = ₹ 30,00,000
 Working Capital = Current Assets – Current Liabilities
 = ₹ 4,50,000* – ₹ 1,50,000 = ₹ 3,00,000.

*1/3 of Current Assets = Current Liabilities = ₹ 1,50,000; Current Assets = ₹ 4,50,000.

75. (3) **Explanation:** Let Cost be ₹ 100; Gross Profit = ₹ 30;
 Revenue from Operations = ₹ 130;
 Gross Profit = ₹ 26,00,000 × ₹ 30/₹ 130 = ₹ 6,00,000.

76. (3) **Explanation:** In this case, Revenue from Operations increases but closing inventory will decrease by the same percentage. In effect Cost of Revenue from Operations will also increase by the same percentage as the Revenue from Operations. Thus, Gross Profit Ratio will remain same.

77. (1) **Explanation:** Operating Cost includes Operating Expenses and Cost of Revenue from Operations.

78. (2) **Explanation:** Cost of Revenue from Operations = Cost of Materials Consumed + Purchases of Stock-in-Trade + Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade + Direct Expenses

79. (3) **Explanation:** Purchase of goods will not change the Operating Ratio because both purchases and closing inventory will increase by the same amount hence Cost of Revenue from Operations will remain unchanged.

80. (1) **Explanation:** Operating Ratio = Operating Cost/Revenue from Operations × 100
 = ₹ 27,60,000/₹ 30,00,000 × 100 = 92%.

Working Note:

Revenue from Operations (Total) = Cash Revenue from Operations + Credit Revenue from Operations
 = ₹ 12,00,000 + (150% of ₹ 12,00,000) = ₹ 30,00,000
 Gross Profit = Revenue from Operations × Gross Profit Ratio
 = ₹ 30,00,000 × 20/100 = ₹ 6,00,000

$$\begin{aligned}\text{Cost of Revenue from Operations} &= \text{Revenue from Operations} - \text{Gross Profit} \\ &= ₹ 30,00,000 - ₹ 6,00,000 = ₹ 24,00,000\end{aligned}$$

$$\begin{aligned}\text{Operating Cost} &= \text{Cost of Revenue from Operations} + \text{Operating Expenses} \\ &= ₹ 24,00,000 + ₹ 3,60,000^* = ₹ 27,60,000.\end{aligned}$$

$$*\text{Operating Expenses} = 12\% \text{ of Revenue from Operations} = 12\% \text{ of } ₹ 30,00,000 = ₹ 3,60,000.$$

81. (4) **Explanation:** Operating Profit Ratio = Operating Profit/Revenue from Operations × 100.
= ₹ 9,00,000/₹ 30,00,000 × 100 = 30%.

Working Note:

$$\begin{aligned}\text{Operating Profit} &= \text{Revenue from Operations} - \text{Operating Cost.} \\ &= ₹ 30,00,000 - ₹ 21,00,000 = ₹ 9,00,000.\end{aligned}$$

Note: Cost of Revenue from Operations is not added to Operating Cost as it is already included in Operating Cost.

82. (4) **Explanation:** Earnings Per Share (EPS) = (Net Profit after Tax – Preference Dividend)/No. of Equity Shares
= (₹ 10,60,000 – ₹ 1,80,000)/2,20,000 = ₹ 4.

$$\text{Note: Preference Dividend} = 9\% \text{ of } ₹ 20,00,000 = ₹ 1,80,000.$$

83. (1) **Explanation:** Earnings Per Share (EPS) = (Net Profit after Tax* – Preference Dividend)/No. of Equity Shares
= (₹ 13,20,000 – ₹ 1,20,000)/2,40,000 = ₹ 5.

$$\begin{aligned}*\text{Net Profit after Tax} &= \text{Net Profit before Tax} - \text{Tax} \\ &= ₹ 22,00,000 - ₹ 8,80,000 \text{ (i.e., 40\% of } ₹ 22,00,000) = ₹ 13,20,000.\end{aligned}$$

$$\text{Note: Preference Dividend} = 8\% \text{ of } ₹ 15,00,000 = ₹ 1,20,000.$$

84. (3) **Explanation:** Earnings Per Share (EPS) = (Net Profit after Tax – Preference Dividend)/No. of Equity Shares
= (₹ 8,16,000 – ₹ 2,00,000)/4,00,000 = ₹ 1.54.

$$\begin{aligned}\text{Return on Investment} &= \text{Net Profit before Interest and Tax/Capital Employed} \\ 15/100 &= \text{Net Profit before Interest and Tax/ } ₹ 80,00,000\end{aligned}$$

$$\text{Net Profit before Interest and Tax} = ₹ 12,00,000$$

$$\begin{aligned}\text{Net Profit after Interest and Tax} &= \text{Net Profit before Interest and Tax} - \text{Interest on Long-term Debt} - \text{Tax} \\ &= ₹ 12,00,000 - ₹ 1,80,000 \text{ (i.e., 9\% of } ₹ 20,00,000) - ₹ 2,04,000 \text{ (i.e., 20\% of } ₹ 10,20,000) = ₹ 8,16,000.\end{aligned}$$

$$\text{Note: Preference Dividend} = 10\% \text{ of } ₹ 20,00,000 = ₹ 2,00,000.$$

85. (4) **Explanation:** Price Earning (P/E) Ratio = Market Price Per Share/Earning Per Share (EPS) = ₹ 2,640/₹ 220
= 12 Times.

86. (1) **Explanation:** Price Earning (P/E) Ratio = Market Price Per Share/Earning Per Share (EPS)
= ₹ 374/₹ 5.5 = 68 Times.

$$\begin{aligned}\text{Earning Per Share (EPS)} &= (\text{Net Profit after Tax} - \text{Preference Dividend})/\text{No. of Equity Shares} \\ &= (₹ 9,45,000 - ₹ 1,20,000)/1,50,000 = ₹ 5.5.\end{aligned}$$

$$\text{Note: Preference Dividend} = 8\% \text{ of } ₹ 15,00,000 = ₹ 1,20,000.$$

87. (4) **Explanation:** Price Earning (P/E) Ratio = Market Price Per Share/Earning Per Share (EPS)
= ₹ 448/₹ 5.6 = 80 Times.

$$\begin{aligned}\text{Earning Per Share (EPS)} &= (\text{Net Profit after Tax}^* - \text{Preference Dividend})/\text{No. of Equity Shares} \\ &= (₹ 12,00,000 - ₹ 80,000)/2,00,000 = ₹ 5.6.\end{aligned}$$

$$\begin{aligned}*\text{Net Profit after Tax} &= \text{Net Profit before Tax} - \text{Tax} \\ &= ₹ 16,00,000 - ₹ 4,00,000 \text{ (i.e., 25\% of } ₹ 16,00,000) = ₹ 12,00,000.\end{aligned}$$

$$\text{Note: Preference Dividend} = 8\% \text{ of } ₹ 10,00,000 = ₹ 80,000.$$

88. (4) **Explanation:** Current Assets Turnover Ratio = Revenue from Operations/Current Assets
= ₹ 10,92,500/₹ 2,18,500 = 5 Times

Working Note:

$$\begin{aligned}\text{Current Assets} &= \text{Sundry Debtors} + \text{Bills Receivable} - \text{Provision for Doubtful Debts} + \text{Inventories} + \text{Cash and} \\ &\quad \text{Bank Balance} + \text{Advance Tax} \\ &= ₹ 72,500 + ₹ 55,000 - ₹ 10,000 + ₹ 60,000 + ₹ 23,500 + ₹ 17,500 = ₹ 2,18,500.\end{aligned}$$

89. (3) **Explanation:** Current Assets Turnover Ratio = Revenue from Operations/Current Assets
 $= ₹ 30,60,000/₹ 6,80,000 = 4.5 \text{ Times}$

Working Note:

$$\begin{aligned} \text{Current Assets} &= \text{Total Assets}^* - \text{Non-current Assets} \\ &= ₹ 13,20,000 - ₹ 6,40,000 = ₹ 6,80,000 \end{aligned}$$

$$\begin{aligned} \text{Current Liabilities} &= \text{Current Assets} - \text{Working Capital} \\ &= ₹ 6,80,000 - ₹ 4,08,000 = ₹ 2,72,000 \end{aligned}$$

$$*\text{Total Assets} = \text{Total of Equity and Liabilities} = ₹ 13,20,000.$$

90. (1) **Explanation:** Current Assets Turnover Ratio = Revenue from Operations/Current Assets
 $= ₹ 24,30,000/₹ 8,10,000 = 3 \text{ Times}$

Working Note:

$$\begin{aligned} \text{Current Liabilities} &= \text{Total Debts} - \text{Long-term Debts} \\ &= ₹ 10,75,000 - ₹ 6,25,000 = ₹ 4,50,000 \end{aligned}$$

$$\begin{aligned} \text{Current Assets} &= \text{Current Liabilities} + \text{Working Capital} \\ &= ₹ 4,50,000 + ₹ 3,60,000 = ₹ 8,10,000 \end{aligned}$$

$$\begin{aligned} \text{Revenue from Operations} &= \text{Credit Revenue from Operations} + \text{Cash Revenue from Operations} \\ &= ₹ 14,50,000 + ₹ 9,80,000 = ₹ 24,30,000. \end{aligned}$$

91. (3) **Explanation:** Fixed Assets Turnover Ratio = Revenue from Operations/Fixed Assets
 $= ₹ 45,00,000/₹ 20,00,000 = 2.25 \text{ Times}$

Working Note:

$$\text{Gross Profit } 25\% \text{ on Cost} = ₹ 9,00,000 \text{ (Let Cost be ₹ 100; Gross Profit ₹ 25; Sales ₹ 125)}$$

$$\text{Sales (Revenue from Operations)} = ₹ 9,00,000 \times ₹ 125/₹ 25 = ₹ 45,00,000$$

$$\begin{aligned} \text{Non-Current Liabilities} &= \text{Long-term Loans} + 8\% \text{ Debentures} + \text{Long-term Provisions} \\ ₹ 15,66,000 &= ₹ 6,30,000 + ₹ 7,20,000 + ₹ 2,16,000 \end{aligned}$$

$$\begin{aligned} \text{Total Liabilities} &= \text{Shareholders' Funds} + \text{Non-Current Liabilities} + \text{Current Liabilities} \\ ₹ 31,33,000 &= ₹ 14,50,000 + ₹ 15,66,000 + ₹ 1,17,000 \end{aligned}$$

$$\text{Total Liabilities} = \text{Total Assets}$$

$$\text{Total Assets} = \text{Fixed Assets} + \text{Current Assets}$$

$$₹ 31,33,000 = \text{Fixed Assets} + ₹ 11,33,000$$

$$\text{Fixed Assets} = ₹ 20,00,000.$$

92. (2) **Explanation:** Current Assets Turnover Ratio = Revenue from Operations/Current Assets
 $= ₹ 20,00,000/₹ 5,00,000 = 4 \text{ Times}$

Working Note:

$$\text{Fixed Assets Turnover Ratio} = \text{Revenue from Operations/Fixed Assets}$$

$$2 = \text{Revenue from Operations}/₹ 10,00,000$$

$$\text{Revenue from Operations} = ₹ 20,00,000$$

$$\text{Current Liabilities} = ₹ 3,60,000$$

$$\text{Liquid Ratio} = \text{Liquid Assets/Current Liabilities}$$

$$0.8 = \text{Liquid Assets}/₹ 3,60,000$$

$$\text{Therefore, Liquid Assets} = ₹ 2,88,000$$

$$\text{Liquid Assets} = \text{Current Assets} - \text{Inventories} - \text{Prepaid Expenses}$$

$$₹ 2,88,000 = \text{Current Assets} - ₹ 1,40,000 - ₹ 72,000$$

$$\text{Current Assets} = ₹ 5,00,000.$$

93. (1) **Explanation:** Earnings Per Share (EPS) = Dividend Payable to Equity Shareholders/No. of Equity Shares
 $= ₹ 4,80,000/2,40,000 = ₹ 2.$

$$\text{Note: Dividend} = 20\% \text{ of } ₹ 24,00,000 = ₹ 4,80,000$$

$$\text{No. of Equity Shares} = ₹ 24,00,000/₹ 10 = 2,40,000.$$

2. CASE STUDY BASED MCQS

1. A. 1. Current Assets (As on 31st March, 2021)

= Current Investments + Inventories (less Loose Tools) + Trade Receivables (less Provision for Doubtful Debts) + Cash and Cash Equivalents + Other Current Assets (i.e., Prepaid Expenses + Accrued Interest + Advance Tax)

= ₹ 2,50,000 + ₹ 12,00,000 – ₹ 1,50,000 + ₹ 21,80,000 – ₹ 60,000 + ₹ 16,00,000 + ₹ 3,20,000 + ₹ 80,000 + ₹ 80,000 = ₹ 55,00,000.

B. 2. Liquid Assets (As on 31st March, 2020)

= Current Investments + Trade Receivables (less Provision for Doubtful Debts) + Cash and Cash Equivalents + Other Current Assets (i.e., Accrued Interest)

= ₹ 2,60,000 + ₹ 14,00,000 – ₹ 75,000 + ₹ 12,00,000 + ₹ 60,000 = ₹ 28,45,000.

C. 1. Current Ratio = Current Assets/Current Liabilities

= ₹ 45,00,000/₹15,00,000 = 3 : 1.

Current Assets = Current Investments + Inventories (less Loose Tools) + Trade Receivables (less Provision for Doubtful Debts) + Cash and Cash Equivalents + Other Current Assets (i.e., Prepaid Expenses + Accrued Interest + Advance Tax)

= ₹ 2,50,000 + ₹ 14,00,000 – ₹ 1,25,000 + ₹ 12,00,000 – ₹ 40,000 + ₹ 15,00,000 + ₹ 2,05,000 + ₹ 50,000 + ₹ 60,000 = ₹ 45,00,000.

Current Liabilities = Short-term Borrowings + Trade Payables + Other Current Liabilities (i.e., Outstanding Expenses)

= ₹ 1,75,000 + ₹ 12,00,000 + ₹ 1,25,000 = ₹ 15,00,000.

Note: Provision for Doubtful Debts is deducted from the Sundry Debtors to calculate Current Ratio.

D. 4. Liquid Ratio = Liquid Assets/Current Liabilities

= ₹ 40,50,000/₹ 27,00,000 = 1.5 : 1.

Liquid Assets = Current Investments + Trade Receivables (less Provision for Doubtful Debts) + Cash and Cash Equivalents + Other Current Assets (i.e., Accrued Interest)

= ₹ 2,50,000 + ₹ 21,80,000 – ₹ 60,000 + ₹ 16,00,000 + ₹ 80,000 = ₹ 40,50,000.

Current Liabilities = Short-term Borrowings + Trade Payables + Other Current Liabilities (i.e., Outstanding Expenses)

= ₹ 1,50,000 + ₹ 24,00,000 + ₹ 1,50,000 = ₹ 27,00,000.

Note: Provision for Doubtful Debts is deducted from the Sundry Debtors to calculate Liquid or Acid Test Ratio.

2. A. 3. Debt to Equity Ratio = Debt/Equity (Shareholders' Funds)

= ₹ 17,31,000/₹ 11,54,000 = 1.5 : 1.

Debt = Long-term Loans + Debentures + Long-term Provisions

= ₹ 6,30,000 + ₹ 7,20,000 + ₹ 3,81,000 = ₹ 17,31,000

Equity/Shareholders' Funds = Total of Equity and Liabilities* – Debt – Current Liabilities

= ₹ 30,02,000 – ₹ 17,31,000 – ₹ 1,17,000 = ₹ 11,54,000.

*Total Assets or Total of Equity and Liabilities = Fixed Assets (Net) + Non-current Investments + Current Assets

= ₹ 24,00,000 – ₹ 3,30,000 + ₹ 7,25,000 + ₹ 2,07,000

= ₹ 30,02,000.

B. 2. Total Non-current Assets = Fixed Assets (Net) + Non-current Investments

= ₹ 24,00,000 – ₹ 3,30,000 + ₹ 7,25,000 = ₹ 27,95,000.

C. 4. Fixed Assets Turnover Ratio = Revenue from Operations/Fixed Assets (Net)

= ₹ 62,10,000/₹ 20,70,000 = 3 times

Fixed Assets (Net) = ₹ 24,00,000 – ₹ 3,30,000 = ₹ 20,70,000.

- D. 1. Interest Coverage Ratio = Net Profit before Interest and Tax/Interest on Long-term Debts
= ₹ 6,48,000/₹ 1,08,000 = 6 Times.
Interest on Long-term Debts = Interest on 8% Debentures + Interest on 8% Long-term Bank Loan
= 8% of ₹ 7,20,000 + 8% of ₹ 6,30,000 = ₹ 1,08,000.
Net Profit before Interest and Tax = Net Profit before Tax + Interest on Long-term Debts
= ₹ 5,40,000 + ₹ 1,08,000 = ₹ 6,48,000.
3. A 3. Net Profit Ratio = Net Profit/Revenue from Operations × 100
= ₹ 6,30,000/₹ 17,50,000 × 100 = 36%.
Net Profit after Tax = ₹ 6,30,000
Revenue from Operations = ₹ 17,50,000.
- B. 4. Operating Profit Ratio = Operating Profit/Revenue from Operations × 100
= ₹ 9,62,500 × 100/₹ 17,50,000 = 55%
Net Profit after Tax = ₹ 6,30,000
Net Profit before Tax = ₹ 6,30,000 × ₹ 100/₹ 75 = ₹ 8,40,000
(Let Net Profit before Tax is ₹ 100; Tax ₹ 25; Net Profit after Tax is ₹ 75).
Operating Profit = Net Profit before Tax + Non-operating Expenses – Non-operating Incomes
= ₹ 8,40,000 + ₹ 2,12,500 – ₹ 90,000 = ₹ 9,62,500.
- Note:** Interest on Long-term Borrowings, i.e., Interest on 10% Long-term Bank and Interest on 12% Debentures (₹ 60,000 + ₹ 1,20,000) is not added to Net Profit before Tax to compute Operating Profit because it is already included in Non-operating Expenses.
- C. 2. Fixed Assets Turnover Ratio = Revenue from Operations/Fixed Assets (Net)
= ₹ 17,50,000/₹ 8,75,000 = 2 Times
Fixed Assets (Net) = ₹ 13,15,000 – ₹ 4,40,000 = ₹ 8,75,000.
- D. 4. Current Assets Turnover Ratio = Revenue from Operations/Current Assets
= ₹ 17,50,000/₹ 4,37,500 = 4 times
4. A. 4. Inventory Turnover Ratio = Cost of Revenue from Operations/Average Inventory
= ₹ 15,36,000/₹ 80,000 = 19.2 Times.
Cost of Revenue from Operations = Revenue from Operations – Gross Profit
= ₹ 19,20,000 – ₹ 3,84,000 (i.e., 20% of ₹ 19,20,000) = ₹ 15,36,000.
Average Inventory = (Opening Inventory + Closing Inventory)/2
= (₹ 72,000 + ₹ 88,000)/2 = ₹ 80,000.
- B. 1. Trade Receivables Turnover Ratio = Credit Revenue from Operations/Average Trade Receivables
= ₹ 14,40,000/₹ 2,40,000 = 6 Times.
Credit Revenue from Operations = Total Revenue from Operations – Cash Revenue from Operations
= ₹ 19,20,000 – ₹ 4,80,000 (i.e., 25% of ₹ 19,20,000) = ₹ 14,40,000.
Average Trade Receivables = (Opening Trade Receivables + Closing Trade Receivables)/2
= (₹ 2,30,000 + ₹ 2,50,000)/2 = ₹ 2,40,000.
- C. 3. Trade Payables Turnover Ratio = Credit Purchases/Average Trade Payables
= ₹ 10,50,000/₹ 1,75,000 = 6 Times.
Credit Purchases = Total Purchases - Cash Purchases
= ₹ 13,75,000 – ₹ 3,25,000 = ₹ 10,50,000.
Average Trade Payables = (Opening Trade Payables + Closing Trade Payables)/2
= (₹ 1,65,000 + ₹ 1,85,000)/2 = ₹ 1,75,000.

- D. 1. Average Collection Period = Number of days or Months/Trade Receivables Turnover Ratio

$$= 12/6 = 2 \text{ Months.}$$
- E. 4. Average Payment Period = No. of days or months in a year/Trade Payables Turnover Ratio

$$= 12/6 = 2 \text{ Months.}$$
5. A. 2. Increase in Operating Incomes may have resulted into increase in Net Profit before Interest, Tax and Dividend. As a result, ROI increased from 15% to 18%.
- B. 4. Return on Investment = Net Profit before Interest, Tax and Dividend/Capital Employed \times 100

$$18/100 = \text{Net Profit before Interest, Tax and Dividend}/\text{₹ } 42,00,000$$

 Net Profit before Interest, Tax and Dividend = ₹ 7,56,000.
 Profit Before Tax = Profit before Interest, Tax and Dividend – Interest on Long-term Debts

$$= \text{₹ } 7,56,000 - \text{₹ } 96,000 = \text{₹ } 6,60,000$$

 Profit After Tax = Profit Before Tax – Tax

$$= \text{₹ } 6,60,000 - \text{₹ } 2,64,000 = \text{₹ } 3,96,000$$

 Profit available for equity shareholders = Profit after Tax – Dividend on Preference Shares

$$= \text{₹ } 3,96,000 - \text{₹ } 96,000 = \text{₹ } 3,00,000$$

 Number of Equity Shares = ₹ 20,00,000/₹ 10 = 2,00,000
 EPS = Profit available for equity shareholders/Number of Equity Shares

$$= \text{₹ } 3,00,000/2,00,000 = \text{₹ } 1.5 \text{ per share.}$$

 Interest on Long-term Debts = ₹ 10,00,000 \times 9.6% = ₹ 96,000
 Dividend on Preference Shares = ₹ 12,00,000 \times 8% = ₹ 96,000.
- C. 3. Return on Investment = Net Profit before Interest, Tax and Dividend/Capital Employed \times 100

$$15/100 = \text{Net Profit before Interest, Tax and Dividend}/\text{₹ } 40,00,000$$

 Net Profit before Interest, Tax and Dividend = ₹ 6,00,000.
- D. 1. Dividend per Share = Dividend paid to Equity shareholders/Number of Equity Shares

$$= \text{₹ } 4,00,000/2,00,000 = \text{₹ } 2 \text{ per share}$$

 Dividend paid to Equity shareholders = ₹ 20,00,000 \times 20% = ₹ 4,00,000
6. A. 3. Gross Profit Ratio = Gross Profit/Revenue from Operations \times 100

$$= \text{₹ } 3,00,000/\text{₹ } 10,00,000 \times 100 = 30\%.$$

 Gross Profit = Revenue from Operations* – Cost of Revenue from Operations

$$= \text{₹ } 10,00,000 - \text{₹ } 7,00,000 = \text{₹ } 3,00,000.$$

 *Revenue from Operations = Cash Revenue from Operations + Credit Revenue from Operations

$$= \text{₹ } 2,00,000 \text{ (i.e., 25\% of ₹ } 8,00,000) + \text{₹ } 8,00,000 = \text{₹ } 10,00,000.$$
- B. 1. Working Capital Turnover Ratio = Revenue from Operations/Working Capital

$$= \text{₹ } 10,00,000/\text{₹ } 2,50,000 = 4 \text{ Times.}$$

 Working Capital = Current Assets – Current Liabilities

$$= \text{₹ } 8,00,000 - \text{₹ } 5,50,000 = \text{₹ } 2,50,000.$$
- C. 4. Proprietary Ratio = Shareholders' Funds/Total Assets

$$= \text{₹ } 17,20,000/\text{₹ } 34,40,000 = 0.5 : 1.$$

 Shareholders' Funds = Equity Share Capital + Preference Share Capital + General Reserve + Surplus, i.e., Balance in Statement of Profit and Loss + Securities Premium

$$= \text{₹ } 10,00,000 + \text{₹ } 2,00,000 + \text{₹ } 3,60,000 + (-\text{₹ } 2,40,000) + \text{₹ } 4,00,000$$

$$= \text{₹ } 17,20,000.$$

 Total Assets* = Shareholders' Funds + Non-Current Liabilities + Current Liabilities

$$= \text{₹ } 17,20,000 + (\text{₹ } 9,10,000 + \text{₹ } 2,60,000) + \text{₹ } 5,50,000 = \text{₹ } 34,40,000.$$

 *Total Assets = Total of Equity and Liabilities.

- D. 3. Current Assets Turnover Ratio = Revenue from Operations/Current Assets
 = ₹ 10,00,000/₹ 8,00,000 = 1.25 times
 Revenue from Operations = Cash Revenue from Operations + Credit Revenue from Operations
 = ₹ 2,00,000 (i.e., 25% of ₹ 8,00,000) + ₹ 8,00,000 = ₹ 10,00,000.

3. SEQUENCE BASED MCQS

1. 1. **Explanation:**

- C. Credit Revenue from operations is to be determined which is Revenue from Operations – Cash Revenue from Operations.
- A. Determine Average Trade Receivables (Opening Debtors and Bills Receivable + Closing Debtors and Bills Receivable)/2.
- B. Determine Trade Receivables Turnover Ratio by applying the formula: Net Credit Revenue from Operations/Average Trade Receivable.
- D. Trade Receivables Turnover Ratio is used to determine numbers of Days credit is allowed to debtors.

2. 3. **Explanation:**

- C. Credit Purchases = Total Purchases – Cash Purchases.
- B. (Opening Creditors and Bills Payable + Closing Creditors and Bills Payable)/2.
- A. Net Credit Purchases /Average Trade Payable.
- D. Number of days or Months/Trade Payables Turnover Ratio.

3. 4. **Explanation:**

- B. Net Profit refers to Profit after tax (PAT).
- A. Dividend on Preference Shares is calculated.
- D. Profit available for equity shareholders = Profit after Tax – Dividend on Preference Shares.
- C. Apply the formula:
 $EPS = \text{Profit available for Equity Shareholders} / \text{Number of Equity Shares}$

4. 4. **Explanation:**

- B. Find Net Profit. Net profit means Profit after Tax (PAT).
- A. Determine Dividend on Preference Shares payable.
- D. Determine profit available for Equity Shareholders = Profit after tax – Dividend on Preference Shares.
- C. Apply the formula:
 $EPS = \text{Profit available for equity shareholders} / \text{Number of Equity Shares}$
- E. Price Earning Ratio is computed as:
 $P/E \text{ Ratio} = \text{Market Price of a share} / \text{Earning per share}$

5. 1. **Explanation:**

- C. Determine Cost of Revenue from Operations. Cost of Revenue from operations = Purchases + (Opening Inventory – Closing Inventory) + Direct Expenses.
- A. Determine Operating Expenses. Operating expenses include office expenses, administrative expenses, selling expenses, distribution expenses, depreciation and employee benefit expenses.
- D. Determine Revenue from Operations. Revenue from Operations = Cash Revenue from Operations + Credit Revenue from Operations.
- B. Operating Ratio = (Cost of Revenue from Operations + Operating Expenses) × 100/Revenue from Operations.

6. 2. **Explanation:**

- C. Find Net Credit Revenue from Operations. Credit Revenue from operations = Total revenue from operations – Cash revenue from operations.
- A. Find Average Trade Receivables applying the formula: (Opening Debtors and Bills Receivable + Closing Debtors and Bills Receivable)/2.

- B. Determine Trade Receivable Turnover Ratio by applying the formula $\frac{\text{Net Credit Revenue from Operations}}{\text{Average Trade Receivables}}$.
- D. Divide the days or months in a year by Trade Receivables Turnover Ratio, *i.e.*, $\frac{\text{Number of days or Months}}{\text{Trade Receivables Turnover Ratio}}$.

7. 1. Explanation:

- C. Determine Cost of Revenue from Operations. $\text{Cost of Revenue from Operations} = \text{Purchases} + (\text{Opening Inventory} - \text{Closing Inventory}) + \text{Direct Expenses}$.
- A. Determine Operating Expenses. Operating expenses include office expenses, administrative expenses, selling expenses, distribution expenses, depreciation and employee benefit expenses.
- D. Determine Revenue from Operations. $\text{Revenue from Operations} = \text{Cash Revenue from Operations} + \text{Credit Revenue from Operations}$.
- B. Divide the Operating Cost by Revenue from Operations, *i.e.*, $\frac{\text{Cost of Revenue from Operations} + \text{Operating Expenses}}{\text{Revenue from Operations}} \times 100$.

4. MATCHING QUESTIONS

1. 4. Explanation:

- A. Fixed Assets Turnover Ratio is expressed in times. **[List II, Option (II)]**
- B. Proprietary Ratio is expressed as Pure Ratio. **[List II, Option (I)]**
- C. Return on Investment is expressed in percentage. **[List II, Option (IV)]**
- D. Interest Coverage Ratio is expressed in times. **[List II, Option (II)]**
- E. Earnings Per Share is expressed in rupees. **[List II, Option (III)]**

2. 2. Explanation:

- A. Working Capital Turnover Ratio is expressed in times. **[List II, Option (II)]**
- B. Dividend Per Share is expressed in rupees. **[List II, Option (III)]**
- C. Working Capital Ratio is expressed as Pure Ratio. **[List II, Option (I)]**

3. 1. Explanation:

- A. Purchased Machinery for cash will not affect Debt-Equity Ratio because the transaction is a cash transaction. **[List II, Option (II)]**
- B. Issue of Bonus Shares does not affect will not affect Debt-Equity Ratio because issue of Bonus Shares is capitalisation of reserves, which is part of Shareholders' Funds. As a result, one part of Shareholders' Funds will decrease while another will increase. **[List II, Option (II)]**
- C. Purchased Machinery and issued Debentures will increase the ratio because debts will increase while Equity remains unchanged. **[List II, Option (I)]**
- D. Redemption of Debentures will not affect the ratio because neither Debt will change nor Equity will change. Debentures to be redeemed within 12 months or within the period of Operating Cycle from the Balance Sheet Date are Current Liabilities and not Long-term Debt. **[List II, Option (II)]**

4. 3. Explanation:

- A. Dividend Per Share is Profitability Ratio, dividend being paid out of profits. **[List II, (Option (III))]**
- B. Working Capital Turnover Ratio is an Activity Ratio because the ratio shows the number of times working capital is used in earning revenue from operations. **[List II, Option (IV)]**
- C. Return on Investment is a Profitability Ratio because it a measure of profit available on investment made. **[List II, Option (III)]**
- D. Interest Coverage Ratio is a Solvency Ratio because it shows the interest covered by profit. **[List II, Option (II)]**
- E. Fixed Assets Turnover Ratio is an Activity Ratio because it shows the number of times fixed assets used in earning revenue. **[List II, Option (IV)]**

5. 1. **Explanation:**
- A. The sum total of Cost of Materials Consumed + Purchases of Stock-in-Trade + Changes in Inventories of Finished Goods, WIP and Stock-in-Trade + Direct Expenses is Cost of Revenue from Operations. **[List II, Option (I)]**
 - B. The total of Cost of Revenue from Operations + Operating Expenses is operating cost. **[List II, Option (III)]**.
 - C. Cost of Revenue from Operations and Operating Expenses deducted from Revenue from Operations is Operating Profit. **[List II, Option (IV)]**
 - D. Revenue from Operations – Gross Profit is the amount of Cost of Revenue from Operations. **[List II, Option (I)]**.
6. 4. **Explanation:**
- A. Profit before Interest and Tax – Interest on Long term Borrowings is Profit after Interest but before Tax. **[List II, Option (IV)]**
 - B. Profit after Tax – Preference Dividend is the earnings available for Equity Shareholders. **[List II, Option (I)]**
 - C. Profit Before Tax – Tax is Profit after Tax. **[List II, Option (III)]**
 - D. Profit before Interest and Tax – Interest on Long term Borrowings – Tax is Profit after Tax. **[List II, Option (III)]**
 - E. Profit Before Tax + Interest on Long term Borrowings is profit before tax and interest. **[List II, Option (V)]**

5. COMBINATION WITH SINGLE ANSWER QUESTIONS

1. 3. **Explanation:** Quick Ratio and Debt Equity Ratio are pure ratios. Interest Coverage Ratio is expressed in times and Return on Investment is expressed in percentage.
2. 4. **Explanation:** Only Operating Ratio is expressed in percentage. Remaining ratios are expressed in times.
3. 4. **Explanation:** Operating Profit Ratio and Operating Ratio are profitability ratios expressed in percentage. They are complimentary to each other and Operating Profit Ratio + Operating Ratio = 100.
4. 1. **Explanation:** Cost of Revenue from Operations includes direct cost incurred to generate revenue. Difference between Revenue from Operations and Cost of Revenue from Operations is Gross Profit.
Cost of Revenue from Operations is Cost of Materials Consumed, Purchases of Stock-in-Trade, change in inventory of finished goods, WIP and Direct Cost. Entries (Items) at serial (B) and (D) are the formula for determining Cost of Revenue from Operations.
5. 3. **Explanation:** Trade Receivables Turnover Ratio shows efficiency in the collections from trade receivables. Higher the ratio, better it is since it indicates that debts are being collected more quickly.
Trade Payables Turnover Ratio shows the number of times the creditors are turned over in relation to purchases. A high turnover ratio or shorter payment period shows the availability of less credit or early payments. Thus, the two ratios effect the credit policy of the company.
6. 3. **Explanation:** Capital Employed can be calculated following either Assets Side Approach or Liabilities Side Approach
Capital Employed from Assets Side Approach is calculated as per Entry (Item) (A) while it is calculated from Liabilities Side Approach as per Entry (Item) (D).