ANSWERS

1. (d)

2. (c)

3. (a)

4. (a)

5. (c)

Working Note:

$$\text{Trade Receivables Turnover Ratio} = \frac{\text{Credit Revenue from Operations}}{\text{Average Trade Receivables}} = \frac{₹\ 5,20,000}{₹\ 70,000} = 7.43 \text{ Times}$$

$$\text{Average Trade Receivables} = \frac{\text{Opening Trade Receivables} + \text{Closing Trade Receivables}}{2}$$

$$= \frac{(3/4 \times ₹\ 80,000) + ₹\ 80,000}{2} = ₹\ 70,000.$$

6. (d)

Working Note:

Shareholders' Funds = Current Assets + Non-current Assets – Long-term Borrowings – Long-term Provisions – Current Liabilities

= ₹ 90,000 + ₹ 3,60,000 – ₹ 2,00,000 – ₹ 1,00,000 – ₹ 50,000 = ₹ 1,00,000

Total Assets = Current Assets + Non-current Assets

= ₹ 90,000 + ₹ 3,60,000 = ₹ 4,50,000

$$\text{Proprietary Ratio} = \frac{\text{Shareholders' Funds}}{\text{Total Assets}} = \frac{₹\ 1,00,000}{₹\ 4,50,000} = 0.22 : 1 \text{ or } 22\%.$$

7. (b)

Working Note:

Profit before Tax = ₹ 1,05,000 × 100/50 = ₹ 2,10,000

Profit before Interest and Tax = ₹ 2,10,000 + (₹ 5,00,000 × 8/100) = ₹ 2,50,000

Capital Employed = Equity Share Capital + Preference Share Capital + Debentures

= ₹ 2,00,000 + ₹ 3,00,000 + ₹ 5,00,000 = ₹ 10,00,000

$$\text{Return on Investment (ROI)} = \frac{\text{Profit before Interest and Tax}}{\text{Capital Employed}} \times 100 = \frac{₹\ 2,50,000}{₹\ 10,00,000} \times 100 = 25\%.$$

8. (b)

Working Note:

Cost of Revenue from Operations = Opening Inventory + Purchases – Closing Inventory

₹ 3,00,000 = ₹ 50,000 + ₹ 4,00,000 – Closing Inventory

Closing Inventory = – ₹ 3,00,000 + ₹ 50,000 + ₹ 4,00,000 = ₹ 1,50,000

$$\text{Average Inventory} = \frac{\text{Opening Inventory} + \text{Closing Inventory}}{2}$$

$$= \frac{₹\ 50,000 + ₹\ 1,50,000}{2} = ₹\ 1,00,000$$

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}} = \frac{₹\ 3,00,000}{₹\ 1,00,000} = 3 \text{ Times}.$$

9. (c)

Working Note:

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

$$= \frac{₹\ 90,00,000}{₹\ 30,00,000} = 3 \text{ Times}$$

Net Fixed Assets = Fixed Assets (at cost) – Accumulated Depreciation

= ₹ 35,00,000 – ₹ 5,00,000 = ₹ 30,00,000.

10. (d)

11. (b)

Working Note:

$$\text{Trade Payables Turnover Ratio} = \frac{\text{Net Credit Purchases}}{\text{Average Trade Payables}}$$

$$= \frac{₹\ 3,60,000}{(₹\ 15,000 + ₹\ 45,000)/2} = 12 \text{ Times}$$

Closing Trade Payables = ₹ 3,60,000 × 12.5/100 = ₹ 45,000

Opening Trade Payables = ₹ 45,000 × 1/3 = ₹ 15,000.

12. (b)

Working Note:

Revenue from Operations = Cost of Revenue from Operations + Gross Profit

= ₹ 36,00,000 + ₹ 12,00,000 = ₹ 48,00,000

Working Capital = Capital Employed – Non-current Assets

= ₹ 32,00,000 – ₹ 20,00,000 = ₹ 12,00,000

$$\text{Working Capital Turnover Ratio} = \frac{\text{Revenue from Operations}}{\text{Working Capital}} = \frac{₹\ 48,00,000}{₹\ 12,00,000} = 4 \text{ Times.}$$

13. (c)

Working Note:

Debt = Total Debt – Current Liabilities

= ₹ 1,80,000 – ₹ 20,000 = ₹ 1,60,000

Total Assets = Shareholders' Funds + Total Debt

= ₹ 80,000 + ₹ 1,80,000 = ₹ 2,60,000

$$\text{Total Assets to Debt Ratio} = \frac{\text{Total Assets}}{\text{Debt}} = \frac{₹\ 2,60,000}{₹\ 1,60,000} = 26 : 16 = 1.63 : 1.$$

14. (c)

Working Note:

Interest on Long-term Borrowings = ₹ 4,00,000 × 10% = ₹ 40,000

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Tax}}{\text{Interest on Long-term Borrowings}} = \frac{₹\ 3,20,000}{₹\ 40,000} = 8 \text{ Times.}$$

15.

Effect	*Reason*
(i) Reduce	Quick Assets will decrease due to reduction of cash.
(ii) No Change	Quick Assets will not change due to conversion of Trade Receivables into cash.
(iii) Improve	Quick Assets will increase due to increase in cash.
(iv) Improve	Quick Assets will increase due to increase in cash.

16.

Effect	*Reason*
(i) No Change	*Neither* the Debt *nor* the Equity are affected.
(ii) Increase	Equity is decreased by the amount of loss but Debt remains unchanged.
(iii) Decrease	Equity is increased by the amount of profit but Debt remains unchanged
(iv) No Change	*Neither* the Debt *nor* the Equity is affected.

17.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$$

$$8 = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$$

$$8 = \frac{\text{Cost of Revenue from Operations}}{(₹\ 60{,}000 + ₹\ 1{,}00{,}000)/2}$$

$$\text{Cost of Revenue from Operations} = ₹\ 80{,}000 \times 8 = ₹\ 6{,}40{,}000$$

$$\text{Revenue from Operations (Sales)} = ₹\ 6{,}40{,}000 + (₹\ 6{,}40{,}000 \times 25/100)$$

$$= ₹\ 8{,}00{,}000$$

$$\text{Gross Profit} = \text{Revenue from Operations} - \text{Cost of Revenue from Operations}$$

$$= ₹\ 8{,}00{,}000 - ₹\ 6{,}40{,}000 = ₹\ 1{,}60{,}000$$

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Revenue from Operations}} \times 100$$

$$= \frac{₹\ 1{,}60{,}000}{₹\ 8{,}00{,}000} \times 100 = 20\%.$$

18.

$$\text{Cost of Revenue from Operations} = \text{Revenue from Operations} - \text{Gross Profit}$$

$$= ₹\ 3{,}00{,}000 - ₹\ 1{,}85{,}000 = ₹\ 1{,}15{,}000$$

$$\text{Operating Cost} = \text{Cost of Revenue from Operations} + \text{Operating Expenses}$$

$$= ₹\ 1{,}15{,}000 + (₹\ 6{,}000 \text{ Employees Benefit Expenses} + ₹\ 8{,}000 \text{ Depreciation})$$

$$= ₹\ 1{,}29{,}000$$

$$\text{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Revenue from Operations}} \times 100$$

$$= \frac{₹\ 1{,}29{,}000}{₹\ 3{,}00{,}000} \times 100 = 43\%.$$

19. Cost of Revenue from Operations = Operating Cost – Operating Expenses

$$= ₹\ 8,50,000 - ₹\ 50,000 = ₹\ 8,00,000$$

Revenue from Operations = Cost of Revenue from Operations + Gross Profit

$$= ₹\ 8,00,000 + (₹\ 8,00,000 \times 25/100) = ₹\ 10,00,000$$

Operating Profit = Revenue from Operations – Operating Cost

$$= ₹\ 10,00,000 - ₹\ 8,50,000 = ₹\ 1,50,000$$

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Revenue from Operations}} \times 100$$

$$= \frac{₹\ 1,50,000}{₹\ 10,00,000} \times 100 = 15\%.$$

20. (i) $$\text{Debt to Capital Employed Ratio} = \frac{\text{Long-term Debt}}{\text{Capital Employed}}$$

$$= \frac{₹\ 4,60,000}{₹\ 15,20,000} = 0.30 : 1$$

Long-term Debt = Non-current Liabilities

$$= ₹\ 2,60,000 + ₹\ 2,00,000 = ₹\ 4,60,000$$

Capital Employed = Total Assets – Current Liabilities

$$= ₹\ 17,20,000 - ₹\ 2,00,000 = ₹\ 15,20,000.$$

(ii) $$\text{Net Assets Turnover Ratio} = \frac{\text{Revenue from Operations}}{\text{Net Assets}}$$

$$= \frac{₹\ 60,80,000}{₹\ 15,20,000} = 4 \text{ Times.}$$

Net Assets = Total Assets – Current Liabilities

$$= ₹\ 17,20,000 - ₹\ 1,50,000 - ₹\ 50,000 = ₹\ 15,20,000.$$

21. 'Provision for Doubtful Debts' is **not deducted** from the amount of Trade Receivables as the purpose is to calculate the number of days for which sales are tied up in debtors and not to ascertain the realisable value of Trade Receivables. If the 'Provision for Doubtful Debts' is deducted, it would give impression that the portion of Trade Receivables (to the extent of such provision) is collected from debtors.

22. Variations of Accounting practices as limitation of Ratio Analysis is highlighted in the given statement.

Other two limitations of Ratio Analysis

(i) *Ratio Analysis ignores Qualitative Factors:* Accounting ratios are calculated from the factors contained in financial statements. Financial statements ignore qualitative information and as a result, accounting ratios do not consider qualitative factors, *viz*., human resources, sales policy, market conditions, etc.

(ii) *Ratio Analysis ignores Price-level Changes:* Accounting ratios are calculated from financial statements which are drawn on the basis of historical costs as recorded in the books of account. Thus, these ratios ignore the change in price level and they do not reflect the actual analysis.