Chapter 9
Ratio Analysis

I. Choose the Correct Answer

Question 1.
The mathematical expression that provides a measure of the relationship between two figures is called ……..
(a) Conclusion
(b) Ratio
(c) Model
(d) Decision
Answer:
(b) Ratio

Question 2.
Current ratio indicates ……..
(a) Ability to meet short term obligations
(b) Efficiency of management
(c) Profitability
(d) Long term solvency
Answer:
(a) Ability to meet short term obligations

Question 3.
Current assets excluding inventory and prepaid expenses is called ……..
(a) Reserves
(b) Tangible assets
(c) Funds
(d) Quick assets
Answer:
(d) Quick assets

Question 4.
The debt equity ratio is a measure of ……..
(a) Short term solvency
(b) Long term solvency
(c) Profitability
(d) Efficiency
Answer:
(b) Long term solvency

Question 5.
Match List-I with List-II and select the correct **Answer** using the codes given below:

List I	List II
(i) Current ratio	1. Liquidity
(ii) Net profit ratio	2. Efficiency
(iii) Debt-equity ratio	3. Long term solvency
(iv) Inventory turnover ratio	4. Profitability

Codes:

	(i)	(ii)	(iii)	(iv)
(a)	1	4	3	2
(b)	3	2	4	1
(c)	4	3	2	1
(d)	1	2	3	4

Answer:
(a) 1 4 3 2

Question 6.
To test the liquidity of a concern, which of the following ratios are useful?
(i) Quick ratio
(ii) Net profit ratio
(iii) Debt – equity ratio
(iv) Current ratio
Select the correct **Answer** using the codes given below:
(a) (i) and (ii)
(b) (i) and (iv)
(c) (ii) and (iii)
(d) (ii) and (iv)
Answer:
(b) (i) and (iv)

Question 7.
The proportion of share holder's funds to total assets is called ……..
(a) Proprietary ratio
(b) Capital gearing ratio
(c) Debt equity ratio
(d) Current ratio
Answer:
(a) Proprietary ratio

Question 8.
Which one of the following is not correctly matched?
(a) Liquid ratio – Proportion
(b) Gross profit ratio – Percentage
(c) Fixed assets turnover ratio – Percentage
(d) Debt – equity ratio – Proportion
Answer:
(c) Fixed assets turnover ratio – Percentage

Question 9.
Current liabilities ₹ 40,000; Current assets ₹ 1,00,000 ; Inventory ₹ 20,000 . Quick ratio is ……..
(a) 1:1
(b) 2.5:1
(c) 2:1
(d) 1:2
Answer:
(c) 2:1

Question 10.
Cost of revenue from operations ₹ 3,00,000; Inventory in the beginning of the year ₹ 60,000; Inventory at the close of the year ₹ 40,000. The inventory turnover ratio is
(a) 2 times
(b) 3 times
(c) 6 times
(d) 8 times
Answer:
(c) 6 times

II. Very short Answer Questions

Question 1.
What is meant by accounting ratios?
Answer:
The ratio is a mathematical expression of the relationship between two related or interdependent items. When ratios are calculated on the basis of accounting information, these are called 'accounting ratios'.

Question 2.
What is the quick ratio?
Answer:

The quick ratio gives the proportion of quick assets to current liabilities. It indicates whether the business concern is in a position to pay its current liabilities as and when they become due, out of its quick assets. Quick assets are current assets excluding inventories and prepaid expenses. It is otherwise called "liquid ratio" or "acid test ratio".
Quick ratio = Quick assets Current liabilities
Quick assets = Current assets – Inventories – Prepaid expenses.
The higher the quick ratio, the better is the short-term financial position of an enterprise.

Question 3.
What is meant by debt-equity ratio?
Answer:
The debt-equity ratio is calculated to assess the long-term solvency position of a business concern. The debt-equity ratio expresses the relationship between long-term debt and shareholders' funds.

Question 4.
What does the return on investment ratio indicate?
Answer:
It shows the proportion of net profit before interest and tax to capital employed (shareholder's fund and long term debts). It is an overall measure of the profitability of a business concern.

$$\frac{\text{Net profit before interest and tax}}{\text{Capital employed}} \times 100$$

Capital employed = Shareholder's funds + Non-current liabilities
Greater the return on investment better is than the profitability of a business and vice versa.

Question 5.
State any two limitations of ratio analysis.
Answer:

- Ratios are only means: Ratios are not ended in themselves but they are the only means to achieve a particular purpose. Analysis of related items must be done by the management or experts with the help of ratios.
- Accuracy of financial information: The accuracy of a ratio depends on the accuracy of information taken from financial statements. If the statements are inaccurate, ratios computed based on that will also be inaccurate.

III. Short Answer Questions

Question 1.
Explain the objectives of ratio analysis.

Answer:
The objectives of ratio analysis:

- To simplify accounting figures
- To facilitate analysis of financial statements
- To analyze the operational efficiency of a business
- To help in budgeting and forecasting.
- To facilitate intra firm and inter-firm comparison of performance.

Question 2.
What is the inventory conversion period? How is it calculated?
Answer:
It is the time taken to sell the inventory. A shorter inventory conversion period indicates more efficiency in the management of inventory. It is computed as follows:

$$\frac{\text{Number of days in a year}}{\text{Inventory turnover ratio}}$$

(in days)

$$\frac{\text{Number of months in a year}}{\text{Inventory turnover ratio}}$$

(in months)

Question 3.
How is operating profit ascertained?
Answer:
It gives the proportion of operating profit to revenue from operations. Operating profit ratio is an indicator of the operational efficiency of an organisation. It may be computed as follows:

$$\frac{\text{Operating profit}}{\text{Revenue from operations}} \times 100$$

Alternatively, it is calculated as under:
Operating profit ratio = 100 – Operating cost ratio
Operating profit = Revenue from operations – Operating cost

Question 4.
State any three advantages of ratio analysis.
Answer:

- Measuring operational efficiency: Ratio analysis helps to know the operational efficiency of a business by finding the relationship between operating cost and revenues and also by comparison of present ratios with those of the past ratios.
- Measuring financial solvency: Ratio analysis helps to ascertain the liquidity or short term solvency and long term solvency of a business concern.

- Facilitating investment decisions: Ratio analysis helps the management in making effective decisions regarding profitable avenues of investment.
- Analysing the profitability: Ratio analysis helps to analyse the profitability of a business in terms of sales and investments.
- Intra firm comparison: Comparison of the efficiency of different divisions of an organization is possible by comparing the relevant ratios.
- Inter-firm comparison: Ratio analysis helps the firm to compare its performance with other firms.

Question 5.
Bring out the limitations of ratio analysis.
Answer:
Following are the limitations of ratio analysis:
1. Ratios are only means: Ratios are not ended in themselves but they are only meant to achieve a particular purpose. Analysis of related items must be done by the management or experts with the help of ratios.

2. Accuracy of financial information: The accuracy of a ratio depends on the accuracy of information taken from financial statements. If the statements are inaccurate, ratios computed based on that will also be inaccurate.

3. Consistency in preparation of financial statements: Inter-firm comparisons with the help of ratio analysis will be meaningful only if the firms follow uniform accounting procedures consistently.

4. Non – availability of standards or norms: Ratios will be meaningful only if they are compared with accepted standards or norms. Only a few financial ratios have universally recognized standards. For other ratios, comparison with standards is not possible.

5. Change in price level: Ratio analysis may not reflect price level changes and current values as they are calculated based on historical data given in financial statements.

IV. Exercises

Question 1.
Calculate the current ratio from the following information.

Particulars	₹	Particulars	₹
Current investments	40,000	Fixed assets	5,00,000
Inventories	2,00,000	Trade creditors	80,000
Trade debtors	1,20,000	Bills payable	50,000
Bills receivable	80,000	Expenses payable	20,000
Cash and cash equivalents	10,000	Non-current liability	3,00,000

Solution:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Current assets = current investment + Inventories + Trade debtors + Bills receivable + Cash and cash equivalents

C. A = 40,000 + 2,00,000 + 1,20,000 + 80,000 + 10,000 = 4,50,000

Current liablities = Trade crditors + Bills payable + Expenses payable

C.L = 80,000 + 50,000 + 20,000 = 1,50,000

Current ratio = $\frac{4,50,000}{1,50,000}$

Current ratio = 3:1

Question 2.

Calculate quick ratio: Total current liabilities ₹ 2,40,000; Total current assets ₹ 4,50,000; Inventories ₹ 70,000; Prepaid expenses ₹ 20,000

Solution:

$$\text{Quick ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Quick ratio = Current assets – Inventory – Prepaid expenses

= 4,50,000 – 70,000 – 20,000

= 3,60,000

Quick ratio = $\frac{3,60,000}{2,40,000} = 1.5 : 1$

Question 3.

Following is the balance sheet of Lakshmi Ltd. as on 31st March, 2019:

Particulars	₹
I EQUITY AND LIABILITIES	
1. Shareholders' funds	
Equity share capital	4,00,000
2. Non-current liabilities	2,00,000
Long term borrowings	
3. Current liabilities	
(a) Short-term borrowings	50,000
(b) Trade payables	3,10,000
(c) Other current liabilities	
Expenses payable	15,000
(d) Short-term provisions	25,000
Total	**10,00,000**

II ASSETS	
1. Non-current assets	
(a) Fixed assets	4,00,000
Tangible assets	
2. Current assets	
(a) Inventories	1,60,000
(b) Trade debtors	3,20,000
(c) Cash and cash equivalents	80,000
(d) Other current assets	
Prepaid expenses	40,000
Total	**10,00,000**

Calculate:
(i) Current ratio (ii) Quick ratio
Solution:

(i) Current ratio $= \frac{\text{Current assets}}{\text{Current liabilities}}$
$= \frac{6,00,000}{4,00,000}$
Current ratio = 1.5:1
Current assets = Inventories + Trade debtors + Cash and cash equivalents + other current assets prepaid expenses.
= 40,000 + 1,60,000 + 3,20,000 + 80,000
= 6,00,000
Current Liabilities = short-term loans + trade payables + Expenses payable + short term provision.
= 50,000 + 3,10,000 + 15,000 + 25,000
= 4,00,000
Quick ratio $= \frac{Quick\ assets}{\text{Current liabilities}}$
Quick assets = Current assets – Inventory – Prepaid expenses
= 6,00,000 – 1,60,000 – 40,000 = 4,00,000
Quick ratio $= \frac{4,00,000}{4,00,000} = 1:1$

Question 4.
From the following information calculate the debt-equity ratio.
Balance sheet (Extract) as on 31st March 2019:

Particulars	Amount ₹
I. EQUITY AND LIABILITIES	
1. Shareholders' funds	
(a) Share capital	
Equity share capital	6,00,000
(b) Reserves and surplus	2,00,000
2. Non-current liabilities	
Long-term borrowings (Debentures)	6,00,000
3. Current liabilities	
(a) Trade payables	1,60,000
(b) Other current liabilities	
Outstanding expenses	40,000
Total	**16,00,000**

Solution:

Debt equity ratio $= \frac{Long\ term\ debt}{\text{Shareholders funds}}$

Debentures = 6,00,000

Shareholders' funds = Equity share capital + Reserves and surplus

= 6,00,000 + 2,00,000

= 8,00,000

Debt Equity ratio $= \frac{6,00,000}{8,00,000} = 0.75 : 1$

Question 5.

From the following Balance Sheet of Pioneer Ltd. calculate proprietary ratio:

Balance sheet of Pioneer Ltd. as on 31.3.2019

Particulars	Amount ₹
I EQUITY AND LIABILITIES	
1. Shareholders' funds	
(a) Share capital	
(i) Equity share capital	2,50,000
(ii) Preference share capital	1,50,000
(b) Reserves and surplus	50,000
2. Non-current liabilities	
Long-term borrowings	-
3. Current liabilities	
Trade payables	1,50,000
Total	**6,00,000**

II ASSETS	
1. Non-current assets	
(a) Fixed assets	4,60,000
(b) Non-current investments	1,00,000
2. Current assets	
Cash and Cash equivalents	40,000
Total	**6,00,000**

Solution:

$$\frac{\text{Shareholders' funds}}{\text{Total tangible assets}}$$

Shareholders' funds = Equity share capital + Preference share capital + Reserves and surplus
= 2,50,000 + 1,50,000 + 50,000
= 4,50,000
Total tanginle assets = Fixed assets capital + preference share capital + Reserves and surplus
= 2,50,000 + 1,00,000 + 40,000
=6,00,000
Proprietary Ratio = $\frac{4,50,000}{6,00,000} = 0.75 : 1$

Question 6.
From the following information calculate the capital gearing ratio:
Balance Sheet (Extract) as on 31.03.2018

Particulars	Amount ₹
I EQUITY AND LIABILITIES	
1. Shareholders' funds	
(a) Share capital	
Equity share capital	4,00,000
5% Preference share capital	1,00,000
(b) Reserves and surplus	
General reserve	2,50,000
Surplus	1,50,000
2. Non-current liabilities	
Long-term borrowings (6% Debentures)	3,00,000
3. Current liabilities	
Trade payables	1,20,000
Provision for tax	30,000
Total	**13,50,000**

Solution:

$$\frac{\text{Funds bearing fixed interest or fixed dividend}}{\text{Equity shareholders funds}}$$

Capital gearing ratio = 0.5 : 1

$= \frac{4,00,000}{8,00,000}$

Funds bearing fixed interest and dividend Preference share capital + Debentures

= 1,00,000 + 3,00,000 = 4,00,000

Equity shareholder's funds = Equity share capital + General reserve + Surplus

= 4,00,000 + 2,50,000 + 1,5,000 = 8,00,000

Question 7.

From the following Balance Sheet of Arunan Ltd. as of 31.03.2019 calculate

1. Debt – equity ratio
2. Proprietary ratio
3. Capital gearing ratio

Balance Sheet of Arunan Ltd. as on 31.03.2019

Particulars	Amount ₹
I EQUITY AND LIABILITIES	
1. Shareholders' funds	
(a) Share capital	
Equity share capital	2,50,000
6% Preference share capital	2,00,000
(b) Reserves and surplus	1,50,000
2. Non-current liabilities	
Long-term borrowings (8% Debentures)	3,00,000
3. Current liabilities	
Short-term borrowings from banks	2,00,000
Trade payables	1,00,000
Total	**12,00,000**
II ASSETS	
1. Non-current assets	
Fixed assets	8,00,000
2. Current assets	
(a) Inventories	1,20,000
(b) Trade receivables	2,65,000
(c) Cash and cash equivalents	10,000
(d) Other current assets	
Expenses paid in advance	5,000
Total	**12,00,000**

Solution:

1. Debt Equity Ratio = $\frac{Long\ term\ debt}{\text{Shareholders funds}}$

Long term debt = Debentures = 3,00,000
Shareholders' funds = Equity share capital + Preference share capital + Reserves and surplus
= 2,50,000 + 2,00,000 + 1 ,50,000
= 6,00,000
Debt Equity Ratio = $\frac{3,00,000}{6,00,000}$ = 0.5 : 1
Debt – equity ratio : 0.5 : 1

2. Proprietary ratio = $\frac{\text{Shareholders' funds}}{\text{Total tangible assets}}$

Total Tangible assets = 12,00,000
Proprietary ratio = $\frac{6,00,000}{12,00,000}$ = 0.5 : 1

3. Capital gearing ratio = $\frac{\text{Funds bearing fixed interest or fixed dividend}}{\text{Equity shareholders funds}}$

Funds bearing fixed interest or dividend = Preference share capital + Debentures + Long term borrowings.
= 2,00,000 + 4,00,000
= 5,00,000
Equity shareholders' funds = Equity share capital + Reserves and surplus
= 2,50,000 + 1,50,000
= 4,00,000
Capital gearing ratio = $\frac{5,00,000}{4,00,000}$ = 1.25 : 1

Question 8.
From the given information calculate the inventory turnover ratio and inventory conversion period (in months) of Sania Ltd.

Particulars	₹
Revenue from operations	12,00,000
Inventory at the beginning of the year	1,70,000
Inventory at the end of the year	1,30,000
Purchases made during the year	6,90,000
Carriage inwards	20,000

Solution:

Inventory turnover ratio = $\frac{\text{Cost of revenue from operations}}{\text{Average inventory}}$

Cost of revenue from operations = Opening inventory + Net Purchases + Direct expenses (carriage inwards) – Closing inventory
= 1,70,000 + 6,90,000 + 20,000 – 1,30,000

= 7,50,000

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

= 1,50,000

Inventory Turnover ratio = $\frac{7,50,000}{1,50,000}$ = 5 times

$$\text{Inventory conversion period} = \frac{\text{Number of months in a year}}{\text{Inventory turnover period}}$$

= $\frac{12}{5}$

= 2.4 months

Question 9.

The credit revenue from operations of Harini Ltd. amounted to ₹ 9,60,000. Its debtors and bills receivable at the end of the accounting period amounted to ₹ 1,00,000 and ₹ 60,000, respectively. Calculate trade receivable turnover ratio and also collection period in months.

Solution:

$$\text{Trade receivables turnover ratio} = \frac{\text{Credit revenue from operations}}{\text{Average trade receivables}}$$

Average trade Receivables = Debtors + Bills receivable

Average Trade Receivables = $\frac{1,10,000+1,40,000}{2}$ = 2,50,000

Trade receivable turnover ratio = $\frac{10,00,000}{2,50,000}$ = 4 times

$$\text{Debt collection period} = \frac{\text{Number of months in a year}}{\text{Trade receivables turnover ratio}} = 3 \text{ months.}$$

Question 10.

From the following figures obtained from Kalpana Ltd, calculate the trade payables turnover ratio and credit payment period (in days).

Particulars	₹
Credit purchases during 2018 – 2019	9,50,000
Trade creditors as on 1.4.2018	60,000
Trade creditors as on 31.3.2019	50,000
Bills payable as on 1.4.2018	45,000
Bills payable as on 31.3.2019	35,000

Solution:

$$\text{Trade payable turnover ratio} = \frac{\text{Credit purchases}}{\text{Average trade payable}}$$

$$\text{Average trade payable} = \frac{(\text{Opening} + \text{Closing})\ (\text{Creditors} + \text{Bills payable})}{2}$$

= $\frac{60,000 \quad 50,000+45,000+35,000}{2}$

= 95,000

Trade payable turnover ratio = $\frac{9,50,000}{95,000}$ = 10 times

$$\text{Credit payment period} = \frac{\text{No.of days in a year}}{\text{Trade payable turnover ratio}} = \frac{365}{10} = 36.5 \text{ days}$$

Question 11.
From the following information of Ashika Ltd., calculate fixed assets turnover ratio:

1. Revenue from operations during the year was ₹ 60,00,000.
2. Fixed assets at the end of the year were ₹ 6,00,000.

Solution:

$$\text{Fixed assets turnover ratio} = \frac{\text{Revenue from operations}}{\text{Average fixed assets}} = \frac{55,00,000}{5,00,000} = 11 \text{ times}$$

Question 12.
Calculate:

1. Inventory turnover ratio
2. Trade receivable turnover ratio
3. Trade payable turnover ratio and
4. Fixed assets turnover ratio from the following information obtained from Delphi Ltd.

Particulars	As on 31st March, 2018 ₹	As on 31st March, 2019 ₹
Inventory	3,60,000	4,40,000
Trade receivables	7,40,000	6,60,000
Trade payables	1,90,000	2,30,000
Fixed assets	6,00,000	8,00,000

Additional information:

1. Revenue from operations for the year ₹ 10,50,000
2. Purchases for the year ₹ 4,50,000
3. Cost of revenue from operations ₹ 6,00,000. Assume that sales and purchases are for credit.

Solution:

1. Inventory turnover ratio = $\frac{\text{Cost of revenue from operations}}{\text{Average inventory}}$

Average inventory $= \frac{\text{(Opening + Closing) inventory}}{2}$

$= \frac{3,60,000+4,40,000}{2} = 4,00,000$

Inventory turnover ratio $= \frac{16,00,000}{4,00,000} = 4$ times

2. Trade receivables turnover ratio $= \frac{\text{Revenue from operation}}{\text{Average trade receivable}}$

Average trade receivable $= \frac{7,40,000+6,60,000}{2} = 7,00,000$

Trade receivables turnover ratio $= \frac{35,00,000}{7,00,000} = 5$ times

3. Trade payable turnover ratio $= \frac{\text{Credit purchases}}{\text{Average trade payable}}$

Average trade receivable $= \frac{1,90,000+2,30,000}{2} = 21,00,000$

Trade payable turnover ratio $= \frac{21,00,000}{2,10,000} = 10$ times

4. Fixed assets turnover ratio $= \frac{\text{Revenue from operations}}{\text{Average fixed assets}}$

Average fixed assets $= \frac{6,00,000+8,00,000}{2} = 7,00,000$

Fixed assets turnover ratio $= \frac{35,00,000}{7,00,000} = 5$ times

Question 13.
Calculate gross profit ratio from the following:
Revenue from operations ₹ 1,00,000, Cost of revenue from operations ₹ 80,000 and purchases ₹ 62,500.
Solution:

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Revenue from operations}} \times 100$$

Gross profit = Revenue from operations – Cost of revenue from operations
= 2,50,000 – 2,10,000
= 40,000
Greater profit ratio $= \frac{40,000}{2,50,000}$ x 100 = 16%

Question 14.
Following is the statement of profit and loss of Maria Ltd. for the year ended 31st March, 2018. Calculate the operating cost ratio.
Statement of Profit and Loss

Particulars	Note No.	Amount ₹
I. Revenue from operations		15,00,000
II. Other Income		40,000
III. Total revenue (I +II)		**15,40,000**
IV. Expenses:		
Purchases of Stock-in-trade		8,60,000
Changes in inventories		40,000
Employee benefits expense (Salaries)		1,60,000
Other expenses	1	1,70,000
Total expenses		12,30,000
V. Profit before tax (III-IV)		**3,10,000**

Notes to Accounts

Particulars	Amount ₹
1. Other expenses	
Office and administrative expenses	50,000
Selling and distribution expenses	90,000
Loss on sale of furniture	30,000
	1,70,000

Solution:

$$\text{Operating cost ratio} = \frac{\text{Operating cost}}{\text{Revenue from operations}} \times 100$$

Cost of revenue from operations = Purchases of stock-in-trade + Change in inventories of stock
= 8,60,000 + 40,000 = 9,00,000
Operating expenses = office and administrative expenses + Selling and distribution expenses + Employee benefits expenses salaries
= 50,000 + 90,000 + 1,60,000 = 3,00,000
Operating cost = Cost of revenue from operations + Operating expenses
= 9,00,000 + 3,00,000
= 12,00,000
Operating cost ratio = $\frac{12,00,000}{15,00,000}$ x 100 = 80%

Question 15.
Calculate the operating profit ratio under the following cases.
Case 1: Revenue from operations ₹ 10,00,000, Operating profit ₹ 1,50,000.

Case 2: Revenue from operations ₹ 15,00,000, Operating cost ₹ 12,00,000.
Case 3: Revenue from operations ₹ 20,00,000, Gross profit 30% on revenue from operations, Operating expenses ₹ 4,00,000

Solution:

$$\text{Operating ratio} = \frac{\text{Operating profit}}{\text{Revenue from operation}} \times 100$$

Case I :

Operating ratio $= \frac{2,00,000}{8,00,000} \text{x } 100 = 25\%$

Case II.

Operating profit = Revenue from operation – Operating Cost
= 20,00,000 – 14,00,000 = 6,00,000

Operating ratio $= \frac{6,00,000}{20,00,000} \text{ x } 100 = 30\%$

Case III.

Operating profit = Gross profit – Operating expenses

Gross profit = 10,00,000 x $\frac{25}{100}$ = 2,50,000

Operating profit = 2,50,000 – 1,00,000 = 1,50,000

Operating ratio $= \frac{1,50,000}{10,00,000} \text{ x } 100 = 1.5\%$

Question 16.

From the following details of a business, concern calculate net profit ratio.

Particulars	₹
Revenue from operations	9,60,000
Cost of revenue from operations	5,50,000
Office and administration expenses	1,45,000
Selling and distribution expenses	25,000

Solution:

$$\text{Net Profit Ratio} = \frac{\text{Net profit after tax}}{\text{Revenue from operation}} \times 100$$

Net profit = Revenue from operations – Cost of revenue from operation – office and administrative expenses – selling and distribution expenses
=9,60,000 – 5,50,000 – 1,45,000 – 1,25,000
= 2,40,000

Net profit ratio $= \frac{2,40,000}{9,60,000} \text{ x } 100 = 25\%$

Question 17.

From the following statement of profit and loss of Mukesh Ltd. calculate

1. Gross profit ratio

2. Net profit ratio.

Statement of Profit and Loss

Particulars	₹
I. Revenue from operations	24,00,000
II. Other income:	
Income from investment	70,000
III. Total revenues (I+II)	**24,70,000**
IV. Expenses:	
Purchase of stock-in-trade	18,80,000
Changes in inventories	- 80,000
Employee benefits expense	2,90,000
Other expenses	1,10,000
Provision for tax	30,000
Total expenses	22,30,000
V. Profit for the year	**2,40,000**

Solution:

$$1.\ \text{Gross Profit} = \frac{\text{Gross profit}}{\text{Revenue from operations}} \times 100$$

Gross profit = Revenue from operations – Purchase of stock in trade – Changes in inventories

= 24,00,000 – 18,80,000 – (– 80,000)

= 6,00,000

Greater profit ratio = $\frac{6,00,000}{24,00,000}$ x 100 = 10%

$$2.\ \text{Net Profit Ratio} = \frac{\text{Net profit}}{\text{Revenue from operation}} \times 100$$

Net profit ratio = $\frac{2,40,000}{24,00,000}$ x 100 = 10%

Question 18.

From the following trading activities of Naveen Ltd. calculate

1. Gross profit ratio
2. Net profit ratio
3. Operating cost ratio
4. Operating profit ratio

Statement of Profit and loss

Particulars	₹
I. Revenue from operations	4,00,000
II. Other income:	
Income from investments	4,000
III. Total revenues (I+II)	4,04,000
IV Expenses:	
Purchases of stock-in-trade	2,10,000
Changes in inventories	30,000
Finance costs	24,000
Other expenses (Administration and selling)	60,000
Total expenses	3,24,000
V Profit before tax (III - IV)	80,000

Solution:

$$1.\ \text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Revenue from operations}} \times 100$$

Gross profit = Revenue from operations – Purchase of stock in trade – Changes in inventories
= 44,00,000 – 21,00,000 – 30,000
= 16,00,000

Greater profit ratio = $\frac{1,60,000}{4,00,000}$ x 100 = 40%

$$2.\ \text{Net Profit Ratio} = \frac{\text{Net profit}}{\text{Revenue from operation}} \times 100$$

Net profit ratio = $\frac{80,000}{4,00,000}$ x 100 = 20%

$$3.\ \text{Operating cost ratio} = \frac{\text{Operating cost}}{\text{Revenue from operations}} \times 100$$

Cost of revenue from operations = Purchases of stock-in-trade + Change in inventories of stock
= 2,10,000 + 30,000 = 2,40,000
Operating expenses = Administrative expenses + Selling and expenses = 60,000
Operating cost = 2,40,000 + 60,000 = 3,00,000

Operating cost ratio = $\frac{3,00,000}{4,00,000}$ x 100 = 75%

$$4.\ \text{Operating profit ratio} = \frac{\text{Operating profit}}{\text{Revenue from operation}} \times 100$$

Operating profit = Gross profit – Operating expenses
= 1,60,000 – 60,000 = 1,00,000

Operating profit ratio = $\frac{10,00,00}{4,00,000}$ x 100 = 25%

Question 19.
Following is the extract of the balance sheet of Babu Ltd., as on 31st March, 2018:

Particulars	₹
I EQUITY AND LIABILITIES	
1. Shareholders' funds	
(a) Share capital	2,00,000
(b) Reserves and surplus	50,000
2. Non-current liabilities	
Long-term borrowings	1,50,000
3. Current liabilities	
(a) Trade payables	1,30,000
(b) Other current liabilities	5,000
(c) Short-term provisions	20,000
Total	**5,55,000**

Net profit before interest and tax for the year was ₹ 25,000. Calculate the return on capital employed for the year.

Solution:

$$\frac{\text{Net profit before interest and tax}}{\text{Capital employed}} \times 100$$

Capital employed = Share capital + Reserves and surplus + Long term borrowings
= 2,00,000 + 50,000 + 1,50,000 = 4,00,000

Return on Capital employed = $\frac{60,000}{4,00,000}$ x 100 = 15%