

# HOMEWORK SECTION - Ratios

## RATIOS

**Q1.** The total sales (all credit) of a firm are Rs. 6,40,000. It has a gross profit margin of 15 per cent and a current ratio of 2.5. The firm's current liabilities are Rs. 96,000; inventories Rs. 48,000 and cash Rs. 16,000.

- (a) DETERMINE the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected? (Assume 360 days a year).
- (b) DETERMINE the average collection period if the opening balance of debtors is intended to be of Rs. 80,000? (Assume 360 days a year).

**Time to solve: 8 to 10 minutes**

**Q2.** X Co. has made plans for next year. It is estimated that the company will employ total assets of Rs. 8,00,000; 50 percent of the assets being financed by borrowed capital at an interest cost of 8 per cent per year. The direct costs for the year are estimated at Rs. 4,80,000 and all other operating expenses are estimated at Rs. 80,000. The goods will be sold to customers at 150 per cent of the direct costs. Tax rate is assumed to be 50 per cent.

**You are required to CALCULATE:**

- (i) Operating profit margin (before tax);
- (ii) Net profit margin (after tax);
- (iii) Return on assets (on operating profit after tax); (iv) asset turnover and (v) return on owners' equity.'

**Time to solve: 10 to 12 minutes**

**Q3.** From the following ratios and information given below, PREPARE Trading Account, Profit and Loss Account and Balance Sheet of Aebece Company:

Fixed Assets	Rs. 40,00,000
Closing Stock	Rs. 4,00,000
Stock turnover ratio	10
Gross profit ratio	25 percent
Net profit ratio	20 percent
Net profit to capital	1/5
Capital to total liabilities	1/2
Fixed assets to capital	5/4
Fixed assets/Total current assets	5/7

**Time to solve: 14 to 18 minutes**

**Q4.** ABC Company sells plumbing fixtures on 2/10, net 30 terms. Its financial statements over the last 3 years are as follows:

Particulars	2018-19	2019-20	2020-21
	Rs.	Rs.	Rs.
Cash	30,000	20,000	5,000
Accounts receivable	2,00,000	2,60,000	2,90,000
Inventory	4,00,000	4,80,000	6,00,000
	6,30,000	7,60,000	8,95,000
Net fixed assets	8,00,000	8,00,000	8,00,000
	14,30,000	15,60,000	16,95,000
	Rs.	Rs.	Rs.
Accounts payable	2,30,000	3,00,000	3,80,000
Accruals	2,00,000	2,10,000	2,25,000
Bank loan (short-term)	1,00,000	1,00,000	1,40,000
	5,30,000	6,10,000	7,45,000
Long-term debt	3,00,000	3,00,000	3,00,000
Common stock	1,00,000	1,00,000	1,00,000
Retained earnings	5,00,000	5,50,000	5,50,000
	14,30,000	15,60,000	16,95,000
	Rs.	Rs.	Rs.
Sales	40,00,000	43,00,000	38,00,000
Cost of goods sold	32,00,000	36,00,000	33,00,000
Net profit	3,00,000	2,00,000	1,00,000

Considering opening balance of Accounts Receivable and Inventory as 2,00,000 and 4,00,000 respectively as on 01.04.2018, ANALYSE the company's financial condition and performance over the last 3 years. Are there any problems?

**Time to solve: 18 to 25 minutes**

**Q5.** Following information are available for Navya Ltd. along with various ratios relevant to the particular industry it belongs to. APPRAISE your comments on strength and weakness of Navya Ltd. comparing its ratios with the given industry norms.

**Balance Sheet as at 31.3.2021**

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Equity Share Capital	48,00,000	Fixed Assets	24,20,000
10% Debentures	9,20,000	Cash	8,80,000
Sundry Creditors	6,60,000	Sundry debtors	11,00,000
Bills Payable	8,80,000	Stock	33,00,000
Other current Liabilities	4,40,000		-
<b>Total</b>	<b>77,00,000</b>	<b>Total</b>	<b>77,00,000</b>

**Statement of Profitability For the year ending 31.3.2021**

Particulars	Amount (Rs.)	Amount (Rs.)
Sales		1,10,00,000
Less: Cost of goods sold:		
Material	41,80,000	
Wages	26,40,000	
Factory Overhead	12,98,000	81,18,000
Gross Profit		28,82,000
Less: Selling and Distribution Cost	11,00,000	
Administrative Cost	12,28,000	23,28,000
Earnings before Interest and Taxes		5,54,000
Less: Interest Charges		92,000
Earning before Tax		4,62,000
Less: Taxes @ 50%		2,31,000
Net Profit (PAT)		2,31,000

**Industry Norms**

Ratios	Norm
Current Ratio	2.5
Receivables Turnover Ratio	8.0
Inventory Turnover Ratio (based on Sales)	9.0
Total Assets Turnover Ratio	2.0
Net Profit Ratio	3.5%
Return on Total Assets (on EBIT)	7.0%
Return on Net worth (Based on Net profit)	10.5%
Total Debt/Total Assets	60.0%

**Time to solve: 20 to 25 minutes**

**Q6.** The capital structure of Beta Limited is as follows:

Equity share capital of Rs. 10 each	8,00,000
9% preference share capital of Rs. 10 each	3,00,000
	11,00,000

**Additional information:** Profit (after tax at 35 per cent) Rs. 2,70,000; Depreciation Rs. 60,000; Equity dividend paid 20 per cent; Market price of equity shares Rs. 40.

You are required to COMPUTE the following, showing the necessary workings:

- Dividend yield on the equity shares
- Cover for the preference and equity dividends
- Earnings per shares
- Price-earnings ratio

**Time to solve: 8 to 10 minutes**

**Q7.** Ganpati Limited has furnished the following ratios and information relating to the year ended 31<sup>st</sup> March, 2021:

Sales	Rs. 60,00,000
Return on net worth	25%
Rate of income tax	50%
Share capital to reserves	7:3
Current ratio	2
Net profit to sales	6.25%
Inventory turnover (based on cost of goods sold)	12
Cost of goods sold	Rs. 18,00,000
Interest on debentures	Rs. 60,000
Receivables	Rs. 2,00,000
Payables	Rs. 2,00,000

You are required to:

- CALCULATE the operating expenses for the year ended 31<sup>st</sup> March, 2021.
- PREPARE a Balance Sheet as on 31<sup>st</sup> March in the following format:

**Balance Sheet as on 31<sup>st</sup> March, 2021**

Liabilities	Rs.	Assets	Rs.
Share Capital		Fixed Assets	
Reserve and Surplus		Current Assets	
15% Debentures		Stock	
Payables		Receivables	
		Cash	

**Time to solve: 15 to 17 minutes**

**Q8.** Using the following information, PREPARE the balance sheet:

Long-term debt to net worth	0.5
Total asset turnover	2.5
Average collection period*	18 days
Inventory turnover	9
Gross profit margin	10%
Acid-test ratio	1

\*Assume a 360-day year and all sales on credit.

	Rs.		Rs.
Cash	?	Notes and payables	1,00,000
Accounts receivable	?	Long-term debt	?
Inventory	?	Common stock	1,00,000
Plant and equipment	?	Retained earnings	1,00,000
Total assets	?	Total liabilities and equity	?

**Time to solve: 13 to 15 minutes**

**Q9.** Following information has been provided from the books of Laxmi Pvt. Ltd. for the year ending on 31<sup>st</sup> March, 2021:

Net Working Capital	Rs. 4,80,000
Bank overdraft	Rs. 80,000
Fixed Assets to Proprietary ratio	0.75
Reserves and Surplus	Rs. 3,20,000
Current ratio	2.5
Liquid ratio (Quick Ratio)	1.5

You are required to PREPARE a summarised Balance Sheet as at 31<sup>st</sup> March, 2021 assuming that there is no long term debt.

**Time to solve: 8 to 10 minutes**