SOLUTION

Table Showing Income Statement

Particulars	Amount (₹ in lakh)
EBIT	9.00
Less: Interest on debt	1.00
EBT	8.00
Less: Tax @ 30% o EBT	2.40
EAT	5.60

DFL = EBIT/{EBT − (Preference dividend amount)/(1 − t)}

DFL = 9/{8 − (1.20)/(1 − 0.30)} = 1.43

EPS = (5.60 − 1.2)/3 = ₹ 1.47

DFL 1.43 implies that if EBIT changes by 1% from the given level of ₹ 9 lakh, then the EPS will change by 1.43 from the present level of EPS ₹ 1.47.

Now when EBIT changes by 40% then EPS will change by 57.20 % (1.43 × 40).

EXAMPLE 3 From the following balance sheet, calculate solvency group ratio.

Liabilities	Amount (₹)	Assets	Amount (₹)
Equity Share Capital	5,00,000	Land & Building	5,30,000
Preference Share Capital	1,50,000	Plant & Machinery	1,10,000
General Reserves	70,000	Furniture	20,000
Securities premium	30,000	Investment	90,000
P & L Account	1,25,000	Stock	95,000
Debentures	1,50,000	Sundry Debtors	1,75,000
Secured Bank Loan	1,00,000	Bills Receivables	25,000
Bank Overdraft	45,000	Cash and Bank	80,000
Sundry Creditors	55,000	Prepaid Expenses	15,000
Tax Payable	1,00,000	Marketable Securities	20,000
Dividend Payable	60,000	Preliminary Expenses	40,000
		Goodwill	1,10,000
		Patents	75,000
	13,85,000		13,85,000

SOLUTION

Long-term debt = 1,50,000 + 1,00,000 = 2,50,000

Total debt = 2,50,000 + 45,000 + 55,000 + 1,00,000 + 60,000 = 5,10,000

Shareholders' net worth[2] = 5,00,000 + 1,50,000 + 70,000 + 30,000 + 1,25,000 − 40,000 − 1,10,000 − 75000 = 6,50,000

1. Debt-equity Ratio = 2,50,000 /6,50,000

   Debt-equity ratio = 0.38:1

   It shows that long-term debt is just 38% of the owner's equity indicating a low level of leverage and the firm can be considered as safe from the angle of long-term solvency.

[2] It has been assumed that the intangible and fictitious assets have zero realizable value. If we consider that goodwill and patents will have realizable value equal to the book value and preliminary expenses have no realizable value (as fictitious assets usually do not have realizable value) then the net worth will be equal to ₹ 8,35,000.

2. Solvency/Total indebtedness ratio = 5,10,000/6,50,000

   Debt-Equity ratio = 0.78:1

   It shows total indebtedness of business organization. It can be interpreted as total debt—long-term debt and current liabilities is just 78% of the owner's equity indicating a low level of leverage and the firm can be considered as safe from the angle of long-term as well as short-term solvency.

3. Fixed Assets Ratio = 7,50,000/9,00,000

   Net fixed assets = 5,30,000 + 1,10,000 + 20,000 + 90,000 = 7,50,000

   Net capital employed = Shareholders' net worth + long-term debt

   Net capital employed = 6,50,000 + 2,50,000 = 9,00,000

   Fixed Assets Ratio = 0.83, i.e., 83%

   It shall be interpreted as 83% of the net capital employed is being used to finance fixed assets. This shows better and sound solvency position. It can be considered as a high level of coverage for the repayment of long-term liabilities.

4. Proprietary Ratio = 6,50,000 /11,60,000

   Total tangible assets = 13,85,000 – 40,000 – 1,10,000 –75,000 = 11,60,000

   Proprietary Ratio = 0.56, i.e., 56%

   56% of the tangible assets have been financed through the shareholders funds and the remaining have been financed through borrowed funds—long-term debt and current liabilities.

5. Debt Ratio = 5,10,000 /11,60,000

   Debt Ratio = 0.44, i.e., 44%

   44% of the tangible assets have been financed through borrowed funds—long-term debt and current liabilities.

ASSESSING OPERATING MANAGEMENT EFFICIENCY—SALES-BASED PROFITABILITY RATIO

Operating management is the managerial team that is concerned with the execution of policies resulting into the operating activities. The assessment of performance of operating level management can be done by analysing level of operating profit and operating expenses. To evaluate the performance of operating management, sales-based profitability ratios are used.

Sales-based profitability ratios are the one in which profit is reflected with reference to sales for the year.

Profitability ratios are calculated with reference to net sales as well as with reference to the invested capital.

Gross Profit Ratio

This ratio expresses relationship between gross profit and net sales. This ratio indicates the degree to which the selling price of goods per unit may decline without resulting in losses from operations to the firm.

Gross Profit Ratio = (Gross Profit/Net Sales) × 100

Operating Profit Ratio

The ratio denotes the margin of profit on sales revealing the operational efficiency of the unit.

Operating Profit Ratio = (Operating profit/Net sales) × 100