Core Values involved in RATIO ANALYSIS—

- ❖ Transparancy
- ❖ Security—financial
- ❖ Efficiency in utilization of resourses provided by community
- ❖ Scientific and critical analysis

Accounting Ratios

Question 4.

Calculate the current ratio and quick ratio from the following particulars and also give your comments about the same:

		`
Cash		4,000
Trade Receivables		1,00,000
Inventories:	`	
Raw Materials	20,000	
Worker-in-Progress	70,000	
Finished Goods	60,000	1,50,000
Prepaid Expenses		5,000
Land and Buildings		2,50,000
Patents		18,000
Loose Tools		26,000
Goodwill		1,00,000
Bank Overdraft		55,000
Trade Payables		85,000

15% Debentures	80,000

SOLUTION 4.

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

Current Assets = Cash + Trade Receivables + Inventories + Prepaid Expenses

= `4,000 + 1,00+000 + 1,50,000 + 5,000

= `2,59,000

Current Liabilities = Bank Overdraft + Trade Payables

= `55,000 + 85,000

= `1,40,000

$$\text{Current Ratio} = \frac{2,59,000}{1,40,000} = 1.85:1$$

$$\text{Quick Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

Liquid Assets = Cash + Trade Receivables

= `4,000 + 1,00,000 = `1,04,000

$$\text{Quick Ratio} = \frac{1,04,000}{1,40,000} = .743:1$$

Comments: The ideal current ratio should be 2 : 1. But in this case the current ratio is 1.85 : 1 which is less than the idela ratio. Therefore, it can be said that the short-term financial position of the company is not satisfactory.

The ideal quick ratio should be 1 : 1. But in this case the quick ratio is .743 : 1, hence, the short-term financial position cannot be said to be satisfactory.

QUESTION 5.

Calculate (i) Debt-Equity Ratio; (ii) Total Assets to Debt Ratio; and (iii) Proprietary Ratio from the particulars given in the following balance sheet:

BALANCE SHEET

As at 31st March, 2012

Particulars		`
I. EQUITY AND LIABILITIES		
Equity Share Capital		3,00,000
Preference Share Capital		1,00,000
Reserves		50,000
Profit & Loss Balance		65,000
12% Mortgage Loan		1,80,000
Current Liabilities		1,20,000
	TOTAL	8,15,000
II. ASSETS:		
Fixed Assets		4,50,000
Share Issue Expenses		15,000
Current Assets		3,50,000
	TOTAL	8,15,000

What conclusions do you draw from the above ratios?

SOLUTION 5.

(i) Debt Equity Ratio = $\frac{\text{Debt}}{\text{Equity}}$ or $\frac{\text{Long term Loans}}{\text{Shareholder's Funds}}$

Shareholder's Funds = Equity Share Capital + Pref. Share Capital + Reserves + P & L Balance – Share Issue Exp.

= 3,00,000 + 1,00,000 + 50,000 + 65,000 – 15,000

= 5,00,000

Mortgage Loan is Long Term Loan,

Hence, Debt Equity Ratio = $\frac{1,80,000}{5,00,000} = .36:1$

Comments: This ratio indicates what proportion of funds is provided by Long-term loans in comparison to Shareholder's funds. Generally, the ratio should not be more than 2 : 1. Debt-Equity ratio of the above company is .36:1, which indicates that long-term loans are only .36 in comparison to shareholder's funds. Hence, it may be considered that the long-term financial position of the company is very sound.

(ii) Total Assets to Debt Ratio = $\frac{\text{Total Assets}}{\text{Debt}}$

$$= \frac{\text{Fixed Assets} + \text{Current Assets}}{\text{Long-term Loans}}$$

$$= \frac{4,50,000 + 3,50,000}{1,80,000} = 4.44:1$$

Comments: Total assets of this company are 4.44 times in comparison to long-term debts of the company. The higher ratio indicates the use of lower debts in financing the assets which means higher security to lenders.

(iii) Proprietary Ratio = $\frac{\text{Equity}}{\text{Total Assets}}$

$$= \frac{\text{Shareholder's Funds}}{\text{Fixed Assets} + \text{Current Assets}}$$

$$= \frac{5,00,000}{4,50,000 + 3,50,000}$$

= 0.625 or 62.5%

Comments: Shareholder's Funds of this Company are 62.5% in comparison to total assets of the company. In other words, 62.5% of the total assets of the

company are funded by equity which indicates that the long-term financial position of the company is very sound.

QUESTION 6.

From the following balance sheet and other information calculate (i) Working Capital Turnover Ratio, (ii) Debt Equity Ratio and (iii) Trade Receivables Turnover Ratio.

BALANCE SHHET

As at 31st March, 2012

Particulars		`
I. EQUITY AND LIABILITIES		
Share Capital		2,00,000
General Reserve		80,000
Profit and Loss		1,20,000
Loan @ 15%		2,40,000
Trade Payables		1,00,000
	TOTAL	7,40,000
II. ASSETS:		
Fixed Assets		3,60,000

Inventory		80,000
Trade Receivables	1,80,000	
Cash		1,00,000
Preliminary Expenses		20,000
	TOTAL	7,40,000

(i) Sales during the year amounted to `3,80,000.

(ii) Sales returns during the year amounted to `20,000.

SOLUTION 6.

(i) Working Capital Turnover Ratio = $\frac{\text{Net Sales}}{\text{Working Capital}}$

Current Assets = Cash + Inventory + Trade Receivables

= `1,00,000 + `80,000 + `2,60,000

= `3,60,000

Current Liabilities = Trade Payables

= `1,00,000

Working Capital = Current Assets – Current Liabilities

= `3,60,000 – `1,00,000 = `2,60,000

Working Capital Turnover Ratio = $\frac{3,60,000}{2,60,000} = 1.38 \text{ times}$

(ii) Debt-Equity Ratio = $\frac{\text{Debt}}{\text{Equity}}$ or $\frac{\text{Long term Loans}}{\text{Shareholder's Funds}}$

Long term Loans = Loan @ 15%

= `2,40,000

Shareholder's Funds = Share Capital + General Reserve + Profit and Loss (–) Preliminary Expenses

= `2,00,000 + `80,000 + `1,20,000 – `20,000

= `3,80,000

Debt-Equity Ratio = $\frac{2,40,000}{3,80,000} = .63 : 1$

(iii) Trade Receivables Turnover Ratio = $\frac{\text{Net Sales}}{\text{Trade Receivables}}$

Trade Receivables Turnover Ratio = $\frac{3,60,000}{1,80,000} = 2 \text{ times}$

QUESTION 7.

Following is the Balance of X Ltd. As on 31st March, 2012:

Particulars		`
I. EQUITY AND LIABILITIES		
Share Capital		20,00,000
Reserve		5,00,000
Profit for the year		12,00,000
10% Loans		10,00,000
Current Liabilities		8,00,000
	TOTAL	55,00,000
II. ASSETS:		
Fixed Assets		29,00,000
Current Assets		25,00,000
Underwriting Commission		1,00,000
	TOTAL	55,00,000

Find out 'Return on Capital Employed.

SOLUTION 7.

Return on Capital Employed = $\frac{\text{Profit before Interest and Tax}}{\text{Capital Empoyed}}\times 100$

Profit before Interest =

	`
Profit for the year	12,00,000
Add: Interest on Loan (10% on 10,00,000)	1,00,000
	13,00,000

Capital Employed = Share Capital + Reserves + Loans + Profit for the year Underwriting Commission

= `20,00,000 + `5,00,000 + `10,000,000 + `12,00,000 – `1,00,000

= `46,00,000

Return on Capital Employed = $\frac{\text{`}13,00,000}{\text{`}46,00,000}\times 100 = 28.26\%$

Working Note: Capital Employed can also be calculated as under:

	`
Fixed Assets	29,00,000
Add: Working Capital (Current Assets `25,00,000	
Less Current	17,00,000
Liabilities `8,00,000)	46,00,000

QUESTION 8.

Following is the Balance Sheet of X Ltd. as on 31st March, 2012.

Particulars	`
I. EQUITY AND LIABILITIES	
Equity Share Capital: 40,000 Equity Shares of `10 each	4,00,000

12% Preference Share Capital		2,00,000
Reserves		50,000
Profit & Loss Balance		2,20,000
15% Debentures		1,00,000
Current Liabilities		2,30,000
	TOTAL	12,00,000
II. ASSETS:		
Fixed Assets		8,00,000
Underwriting Commission		20,000
Current Assets		3,80,000
	TOTAL	12,00,000

Profit for the current year before payment of Interest and Tax amounted to `3,55,000. You are required to calculate Return on Investment (R.O.I.).

SOLUTION 8.

Return on Investment (R.O.I) = $\frac{\text{Profit before Interset and Tax}}{\text{Capital Employed}} 5100$

Capital Employed = Equity Share Capital + Preference Share Capital + Reserves + P & L A/c + Debentures – Underwriting Commission

= `4,00,000 + `2,00,000 + `50,000 + `2,20,000 + `1,00,000 – `20,000

= `9,50,000

R.O.I = $\frac{3,55,000}{9,50,000} \times 100 = 37.43\%$

Note: When a Balance Sheet is given in the question, the Profit & Loss A/c balance given in it already includes the Current Year's profit. Hence, it is not added again while calculating capital employed.