

Short term solvency
 → Liquidity Ratios: Current Liabilities / Current Assets
 info

$$\textcircled{1} \rightarrow \text{Net - Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

CA: Cash in hand, bank balance, short term invest.
 = marketable securities; debtors, bills receivable, stock, pre-paid

CL: trade creditors, creditors for expenses /
 outstanding expenses, bills payable, bank overdraft
 doubtful debt, cash credit from bank.

$$\textcircled{2} \underline{\text{Current Ratio}}: = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Ideal $\Rightarrow (2:1)$

$$\textcircled{3} \underline{\text{Liquid}} / \underline{\text{Quick Ratio}} / \underline{\text{Acid Test}} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}} / \frac{\text{Liquid Assets}}{\text{Liquid Liabilities}}$$

LQA: Current Assets - (Stock + prepaid)

LQ L: Current Liabilities - Bank overdraft.

→ Solvency Ratios: (Long-term solvency)

↳ periodic payment of interest &
 repayment of long-term loan.

① Leverage Ratios / Capital Structure

↳ long term sources of capital of a business firm.

↳ relation b/w owned & borrowed capital

@ Debt-Equity Ratio: = $\frac{\text{Long term debt}}{\text{Shareholder's equity}}$
 long term
 debt = Debenture + Long term loans
 capital from banks + Public deposits.
 Shareholder's equity = Equity share capital + Reserves &
 Surpluses + preference share capital

Ⓛ Debt - Total Capital Ratio: = $\frac{\text{Long term debt}}{\text{Total capital}}$

Total capital = Shareholder's equity + Long term
 debt

Ⓜ Total debt - Equity Ratio:

= $\frac{\text{Long term debt} + \text{Current Liabilities}}{\text{Shareholder's equity}}$

Ⓞ Proprietary Ratio = $\frac{\text{Net worth}}{\text{Shareholder's Equity}}$
 Total assets.

Ⓟ Coverage Ratios: no. of times a fixed expense
 is covered by the Net profit before tax.

Ⓛ Interest Coverage Ratio:

= $\frac{\text{Estimated profit before tax} \& \text{interest}}{\text{Interest charges.}}$

Ⓜ Dividend Coverage Ratio:

= $\frac{\text{Net profit after tax}}{\text{Preference/Equity dividend paid}}$

① Operational Efficiency (or) Turnover (or) Activity Ratios:

ⓐ Stock Turnover ratio: = $\frac{\text{cost of goods sold}}{\text{Average stock}}$

Cost of goods sold

$$= \frac{\text{Opening stock} + \text{Purchases} + \text{All direct expenses}}{\text{closing stock}}$$

$$\text{Avg Stock} = \frac{\text{OS} + \text{CS}}{2}$$

ⓑ Debtors Turnover ratio = $\frac{\text{Cost of credit sales}}{\text{Avg debtors}}$

ⓒ Avg Collection Period = $\frac{\text{No. of months/days in year}}{\text{debtors turnover ratio}}$

ⓓ Working capital turnover ratio =
= $\frac{\text{Cost of sales}}{\text{Net working capital}}$

ⓔ Fixed turnover ratio = $\frac{\text{Cost of Sales}}{\text{Net fixed assets}}$

ⓕ Capital employed turnover ratio = $\frac{\text{Cost of sales}}{\text{Capital employed}}$

ⓖ Total assets turnover ratio = $\frac{\text{Cost of sales}}{\text{Total assets}}$

ⓗ Creditor's turnover ratio = $\frac{\text{Credit purchases}}{\text{Avg creditors}}$

→ Profitability Ratios:

① In relation to sales: (Selling price / Sale)

ⓐ Gross Profit Margin = $\frac{\text{Gross Profit}}{\text{Sales}} \times 100$

ⓑ Net Profit Margin / Ratio =

$$= \frac{\text{Net profit after tax/before tax}}{\text{Sales}} \times 100$$

ⓒ Operating Profit Ratio

$$= \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

Operating Profit = Sales - (cost of goods sold
+ Selling, Distribution,
General & Administrative
overheads + depreciation)

ⓓ Operating Expense Ratio:

$$= \frac{(\text{Cost of goods sold} + \text{Operating expenses})}{\text{Sales}} \times 100$$

② In Relation to Investment:

ⓐ Return on Investment

① Return on Shareholder's equity

$$= \frac{\text{Profit after tax}}{\text{Shareholder's Equity}} \times 100$$

② Return on capital employed

$$= \frac{\text{Profit before interest & tax}}{\text{Capital Employed}} \times 100$$

③ Return on total assets

$$= \frac{\text{Profit before Interest & Tax}}{\text{Total assets}} \times 100$$

b) Return on equity share capital

$$= \frac{\text{NPAT} - \text{Preference dividend}}{\text{Equity share capital}} \times 100$$

c) Earnings Per share = $\frac{\text{NPAT after tax and preference dividend}}{\text{No. of equity shares}}$

d) Dividend per share = $\frac{\text{Equity dividend declared}}{\text{No. of equity shares}}$

e) Dividend pay-out ratio = $\frac{\text{Dividend per share}}{\text{Earning per share}}$

Illustration 1

The following information is given to you:

1) The balance sheet of a Company as on 31st December, '97 is given below:

Liabilities	1997	1998	Assets	1997	1998
Equity Share capital @ Rs.100 per share 12% Preference	5,00,000	5,00,000	Fixed assets at cost Less: Depreciation	20,00,000 9,00,000	24,50,000 10,75,000
Share Capital	2,00,000	2,00,000	Net Fixed Assets	11,00,000	13,75,000
Reserve & Surpluses	1,20,000	3,16,000	Stock	3,00,000	3,60,000
Long Term Loans	5,00,000	2,50,000	Debtors	2,50,000	2,10,000
Creditors	3,15,000	2,00,000	Bank Balance	1,10,000	-
Provision for tax	1,50,000	75,000	Preliminary Expenses	25,000	20,000
Bank overdraft	-	4,24,000			
	<u>17,85,000</u>	<u>19,65,000</u>		<u>17,85,000</u>	<u>19,65,000</u>

2) Dr. Profit & Loss account for the year ending 31st December, 1998 Cr.

Particulars	Amount	Particulars	Amount
To Opening Stock	3,00,000	By Sales - Cash sales	2,00,000
To Purchases (all credit)	9,20,000	- Credit sales	25,00,000
To Manufacturing Expenses	6,10,000	By Closing Stock	3,60,000
To Administrative, Selling and Distribution expenses	2,20,000		
To Depreciation	1,75,000		
To Interest	95,000		
To Preliminary Expenses	5,000		
To Provision for Tax	3,15,000		
To Net Profit after tax	<u>4,20,000</u>		
	<u>30,60,000</u>		<u>30,60,000</u>

3) Profit and loss appropriation or adjustment account

Particulars	Amount	Particulars	Amount
To Preference Dividend	24,000	By Opening Balance b/d	1,20,000
To Equity Dividend	2,00,000	By Profit & Loss account	<u>4,20,000</u>
To Balance c/d	<u>3,16,000</u>		<u>5,40,000</u>
	<u>5,40,000</u>		

You are required to calculate all the possible ratios

Liquidity Ratios**1) Net working capital**

Net working capital = Current Assets minus Current Liabilities

Current Assets = cash in hand + Cash at bank + Marketable securities + Debtors + Bills Receivable
+ Stock + Prepaid expenses + Short-term loans and advances

Current Liabilities = Sundry creditors + Outstanding expenses + Bills payable + Bank overdraft +
Short-term loans + Provision for taxation + Proposed dividend

For the year 1997

Current Assets = 3,00,000 + 2,50,000 + 1,10,000 = Rs. 6,60,000

Current Liabilities = 3,15,000 + 1,50,000 = Rs. 4,65,000

Net working capital = 6,60,000 - 4,65,000 = Rs. 1,95,000

For the year 1998

Current Assets = 3,60,000 + 2,10,000 = Rs. 5,70,000

Current Liabilities = 2,00,000 + 4,24,000 + 75,000 = 6,99,000

Net working capital = 5,70,000 - 6,99,000 = Rs. - 1,29,000

The net working capital reveals whether the firm is maintaining sufficient working funds in the current assets to cover the current liabilities. In the given case, a positive net working capital in the first year has turned into negative in the second year is an indication of deterioration in the liquidity position of the firm. However, net working capital is not a ratio. Therefore, we need to calculate.

2) Current Ratio

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

$$\text{For the year 1997} = \frac{\text{Rs. } 6,60,000}{\text{Rs. } 4,65,000} = 1.42 : 1$$

$$\text{For the year 1998} = \frac{\text{Rs. } 5,70,000}{\text{Rs. } 6,99,000} = .82 : 1$$

The current ratio of 1.42:1 in the first year indicates that the firm is maintaining Re 1.42 in current assets against Re 1 of current liabilities, which has further fallen to Re .82 in the second year as against the conventional ratio of 2:1. This is an indication that the liquidity position of the business firm is weakening. During the second year, even if all the current assets are converted into cash the firm will not be able to pay off its current liabilities. However, the current ratio is only a quantitative measure of liquidity position and it fails to reveal the quality of liquidity position.

3) Quick Ratio or Acid-test ratio or Liquid ratio

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

$$\text{Liquid Assets/Quick Assets} = \text{Current assets} - (\text{Stock or Inventories} + \text{Pre-paid expenses})$$

$$\text{Liquid Liabilities/ Quick Liabilities} = \text{Current liabilities} - (\text{Bank overdraft})$$

$$\text{For the year 1997} = \frac{\text{Rs. } 6,60,000 - 3,00,000}{\text{Rs. } 4,65,000} = .77 : 1$$

$$\text{For the year 1998} = \frac{\text{Rs. } 5,70,000 - 3,60,000}{\text{Rs. } 6,99,000 - 4,24,000} = .76 : 1$$

As against a conventional quick ratio of 1:1, a ratio of .77 during the first year and .76 during the second year indicates that 77 paise in the first year and 76 paise in the second year have been invested in the current assets, which are in the form of cash and near cash as against of quick or current liabilities of Re 1. A quick ratio below the conventional ratio is an indication of efficient cash management as long as the firm is not facing any difficulty in meeting its current liabilities and match its cash inflows with the cash outflows.

4) Super Quick Ratio

$$\text{Super quick ratio} = \frac{\text{Cash and bank balances}}{\text{Current liabilities}}$$

$$\text{For the year 1997} = \frac{\text{Rs. } 1,10,000}{\text{Rs. } 4,65,000} = .23 : 1$$

For the year 1998 - this ratio cannot be calculated as there is no cash and bank balance.

This ratio of .23 indicates that the firm would be able to pay only 23 paise for every one rupee of current liabilities if they fall due immediately, in first year and during the second year, there is no cash or bank balance to pay-off the current liabilities.

On the whole, the liquidity position of the firm, though it is below the standard, as long as the firm is not facing difficulty in paying its current liabilities the liquidity ratios below the standard always good.

It may be noted here that if the current ratio indicates the liquidity position for a period of one year, the quick ratio indicates it for a relatively shorter period, while the super quick ratio indicates at a point of time.

Solvency Ratios - Capital structure Ratios

1) Debt-equity Ratio:

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term Debt}}{\text{Shareholders' equity}}$$

Long-term debt = Debenture capital + Long-term loans from banks and financial institutions + Public Deposits

Shareholders equity = Equity share capital + Reserves and Surpluses + Preference share capital

$$\text{For the year 1997} = \frac{\text{Rs. } 5,00,000}{\text{Rs. } 5,00,000 + 2,00,000 + 1,20,000} = .61 : 1$$

$$\text{For the year 1998} = \frac{\text{Rs. } 2,50,000}{\text{Rs. } 5,00,000 + 2,00,000 + 3,16,000} = .25 : 1$$

The debt-equity ratio of .61 in the first year indicates that against one rupee of shareholders equity the firm borrowed 61paise, which has fallen to 25paise in the second year. The fall in the debt-equity ratio is an indication of an improvement in the solvency position of the business firm as it is able to repay long-term debts.

2) Debt-to-total capital Ratio

$$\text{Debt-to-total capital ratio} = \frac{\text{Long-term debt}}{\text{Total Capital}}$$

Long-term debt = Debenture capital + Long-term loans from banks and financial institutions + Public Deposits

Total capital = Shareholders equity + Long-term debt

$$\text{For the year 1997} = \frac{\text{Rs. } 5,00,000}{\text{Rs. } 5,00,000 + 2,00,000 + 1,20,000 + 5,00,000} = .38 : 1$$

$$\text{For the year 1998} = \frac{\text{Rs. } 2,50,000}{\text{Rs. } 5,00,000 + 2,00,000 + 3,16,000 + 2,50,000} = .19 : 1 \text{ or } .2 : 1$$

The debt-total capital ratio of .38 in the first year indicates that out of Re. 1 of long-term funds, 19paise borrowed in the first year as against 38paise in the second year indicating an improvement in the solvency position of the business firm.

3) Total Debt to Equity Ratio

$$\text{Total Debt-to-Equity Ratio} = \frac{\text{Long-term debt} + \text{Current Liabilities}}{\text{Shareholders' equity}}$$

$$\text{For the year 1997} = \frac{\text{Rs. } 5,00,000 + 4,65,000}{\text{Rs. } 8,20,000} = 1.18 : 1$$

$$\text{For the year 1998} = \frac{\text{Rs. } 2,50,000 + 6,99,000}{\text{Rs. } 10,16,000} = .93 : 1$$

This ratio indicates that as against Re 1 of shareholders equity Re. 1.18 of borrowed funds (of both long-term and short-term) in the first year, which has further come down to 93paise in the second year. This is an indication of sound solvency position.

4) Proprietary ratio is a ratio

$$= \frac{\text{Net worth}}{\text{Total assets}} = \frac{\text{Share holders' equity}}{\text{Total Assets}}$$

$$\text{For the year 1997} = \frac{\text{Rs. } 8,20,000}{\text{Rs. } 17,85,000 - 25,000} = .46 : 1$$

$$\text{For the year 1998} = \frac{\text{Rs. } 10,16,000}{\text{Rs. } 19,65,000 - 20,000} = .52 : 1$$

The proprietary ratio of .46 indicates that out of Re. 1 total assets the shareholders have a claim of 46paise, which has further increased to 52paise in the second year. This is also an indication of sound solvency position of the firm.

5) Capital Gearing Ratio

$$= \frac{\text{Funds bearing fixed charges}}{\text{equity share holders funds}}$$

$$\text{Fixed charge sources of funds} = \text{Debentures} + \text{Long-term loans} + \text{Public deposits} + \text{Preference share capital}$$

$$\text{Equity Share holders equity} = \text{Equity Share capital} + \text{Reserves and Surpluses} - \text{Fictitious assets}$$

$$\text{For the year 1997} = \frac{\text{Rs. } 2,00,000 + 5,00,000}{\text{Rs. } 5,00,000 + 1,20,000} = 1.13 : 1$$

$$\text{For the year 1998} = \frac{\text{Rs. } 2,50,000 + 2,00,000}{\text{Rs. } 5,00,000 + 3,16,000} = .55 : 1$$

This ratio of 1.13 in the first year indicates that the firm had raised Re 1.13 from those long-term sources on which a fixed charge has to be paid as against Re. 1 of shareholders' funds, which has come down to 55paise in the second year.

On the whole, the solvency position of the firm is sound.

Coverage Ratios

1) Interest Coverage Ratio

$$\begin{aligned} \text{Interest Coverage Ratio} &= \frac{\text{Net profit before Interest and Taxes}}{\text{Interest charges}} \\ &= \frac{4,20,000 + 3,15,000 + 95,000}{95,000} = 8.74 \text{ times} \end{aligned}$$

An interest coverage ratio of 8.74 times indicate that the net profit before interest and taxes is 8.74 times of the interest charges paid by the firm. In other words, the firm has earned net profit before interest and tax of Rs. 8.74 against an interest of Re. 1. This can also be interpreted that the firm has a sound debt-serving capacity of 8.74 times of the present long-term debt.

2) Dividend Coverage Ratio

$$\text{Dividend Coverage Ratio} = \frac{\text{Net profit after tax}}{\text{Preference or Equity Dividend paid}}$$

$$\text{Preference dividend coverage ratio} = \frac{\text{Rs. } 4,20,000}{24,000} = 17.5 \text{ times}$$

$$\text{Equity dividend coverage ratio} = \frac{\text{Rs. } 4,20,000}{2,00,000} = 2.1 \text{ times}$$

This ratio indicates how many rupees of net profit after tax is earned for every one rupee of dividend paid. The firm has earned the net profit of 17.5 times of its preference dividend 2.1 times with its equity dividend.

Operational Efficiency or Turnover or Activity Ratios

1) Inventory Turnover Ratio

$$\text{Inventory or Stock turnover ratio} = \frac{\text{Cost of goods sold or cost of sales}}{\text{Average inventory or stock}}$$

$$\text{Cost of goods sold} = \text{Sales} - \text{Gross profit} \quad \text{Or}$$

$$\text{Cost of goods sold} = \text{Opening stock} + \text{Purchases} + \text{all direct expenses} - \text{Closing stock}$$

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

$$\text{Cost of goods sold} = \text{Rs. } 3,00,000 + 9,20,000 + 6,10,000 - 3,60,000 = \text{Rs. } 14,70,000$$

$$\text{Average stock} = \frac{\text{Rs. } 3,00,000 + 3,60,000}{2} = \text{Rs. } 3,30,000$$

$$\text{Inventory turnover Ratio} = \frac{\text{Rs. } 14,70,000}{\text{Rs. } 3,30,000} = 4.45 \text{ times}$$

An inventory turnover ratio of 4.45 times indicates that a rupee invested in the stocks of raw materials, work-in-progress, finished goods and sundry supplies has rotated or circulated 4.45 times. In other words, with a rupee invested in the inventories, the company is able to generate the cost of sales of Rs.4.45. To know whether the firm is doing well or not , this ratio has to be compared with that of the particular industry to which the firm belongs to.

2) Debtors Turnover Ratio and Average Collection Period

$$\text{Debtors Turnover ratio} = \frac{\text{Cost of credit sales}}{\text{Average debtors}}$$

$$\text{Cost of Credit sales} = \text{Credit sales} - \text{Proportionate Gross profit}$$

In this problem, The total sales = Rs. 27,00,000

$$\text{Credit Sales} = \text{Rs. } 25,00,000$$

$$\text{Total cost of sales} = \text{Rs. } 14,70,000$$

If for total sales of Rs. 27,00,000 ---- the cost of sales are Rs. 14,70,000

For the credit sales of Rs. 25,00,000-----the cost of sales are ?

$$= \frac{\text{Rs. } 25,00,000 \times 14,70,000}{\text{Rs. } 27,00,000} = \text{Rs. } 13,61,111$$

Alternatively the cost of credit sales can be found as follows:

$$\begin{aligned} \text{Gross profit} &= \text{Sales} - \text{cost of sales} \\ &= 27,00,000 - 14,70,000 = \text{Rs. } 12,30,000 \end{aligned}$$

If for the total sales of Rs. 27,00,000 ---- the gross profit is Rs. 12,30,000

$$\begin{aligned} \text{For the credit sales Rs. } 25,00,000 &= ? \\ &= \frac{\text{Rs. } 25,00,000 \times 12,30,000}{27,00,000} = \text{Rs. } 11,38,889 \end{aligned}$$

Therefore the proportionate gross profit for the credit sales = Rs. 11,38,889

$$\begin{aligned} \text{The cost of credit sales} &= \text{Credit sales} - \text{proportionate gross profit} \\ &= \text{Rs. } 25,00,000 - \text{Rs. } 11,38,889 = \text{Rs. } 13,61,111 \end{aligned}$$

$$\begin{aligned} \text{Average debtors} &= \frac{\text{Opening debtors} + \text{Closing Debtors}}{2} \\ &= \frac{\text{Rs. } 2,50,000 + 2,10,000}{2} = \text{Rs. } 2,30,000 \end{aligned}$$

$$\text{Therefore the debtors turnover ratio} = \frac{\text{Rs. } 13,61,111}{\text{Rs. } 2,30,000} = 5.92 \text{ times}$$

$$\begin{aligned} \text{Average collection period} &= \frac{\text{No. of days or months in a year}}{\text{Debtors turnover ratio}} \\ &= \frac{365 \text{ days}}{5.92 \text{ times}} = 61.655 \text{ days or } 62 \text{ days} \end{aligned}$$

3) Working Capital Turnover Ratio

$$\text{Working capital turnover ratio} = \frac{\text{Cost of sales}}{\text{Net working capital}}$$

Note: this ratio cannot be calculated in this problem as the net working capital is negative during the second year, 1998. Otherwise, this ratio indicates the number of times a rupee of long-term funds invested in the current assets has circulated.

4) Fixed Assets Turnover Ratio

$$\text{Fixed assets turnover ratio} = \frac{\text{Cost of sales}}{\text{Net fixed assets}} = \frac{\text{Rs. } 14,70,000}{\text{Rs. } 13,75,000} = 1.07 \text{ times}$$

The fixed assets turnover ratio of 1.07 times indicates that a rupee invested in the fixed assets has rotated 1.07 times. In other words, the firm is able to generate the cost of sales, which are 1.07 times of the investment made in the fixed assets.

5) Total Assets Turnover Ratio

$$\text{Total assets turnover ratio} = \frac{\text{Cost of sales}}{\text{Total assets}} = \frac{\text{Rs. } 14,70,000}{\text{Rs. } 19,65,000 - 20,000} = .76 \text{ times}$$

Total assets turnover ratio of .76 times indicates that for every rupee invested in the total assets, the firm is able to generate the cost of sales of 76 paise of the cost of sales.

6) Capital Employed Turnover Ratio

$$\text{Capital employed turnover ratio} = \frac{\text{Cost of sales}}{\text{Capital employed}} = \frac{\text{Rs. } 14,70,000}{\text{Rs. } 12,66,000} = 1.16 \text{ times}$$

Capital employed = total capital = shareholders' equity + Long-term debt
This ratio of 1.16 times indicates that a rupee of long-term funds invested in the firm has rotated 1.16 times.

7) Creditors Turnover Ratio

$$\text{Creditors Turnover ratio} = \frac{\text{Credit Purchases}}{\text{Average Creditors}} = \frac{\text{Rs. } 9,20,000}{\text{Rs. } 2,57,500} = 3.57 \text{ times}$$

$$\begin{aligned} \text{Average creditors} &= \frac{\text{opening creditors} + \text{closing creditors}}{2} \\ &= \frac{3,15,000 + 2,00,000}{2} = \text{Rs. } 2,57,500 \end{aligned}$$

This ratio indicates the number of times a rupee received as credit from the creditors has rotated and in the given case it has rotated 3.57 times.

Profitability Ratios

Profitability ratios in relation to sales

1) Gross Profit Ratio or Margin:

$$\begin{aligned} \text{Gross profit margin} &= \frac{\text{Gross profit}}{\text{Sales}} \times 100 \\ &= \frac{\text{Rs. } 12,30,000}{\text{Rs. } 27,00,000} \times 100 = 45\% \end{aligned}$$

The gross profit margin of 45% indicates that out of Re. 1 of sales 45 paise represents gross profit and 55 paise is the cost of sales.

2) Net Profit Margin/Ratio:

$$\begin{aligned} \text{Net profit (after tax) margin} &= \frac{\text{Net profit after tax}}{\text{Sales}} \times 100 \\ &= \frac{\text{Rs. } 4,20,000}{\text{Rs. } 27,00,000} \times 100 = 15.5\% \end{aligned}$$

$$\begin{aligned} \text{Net profit (before Tax) margin} &= \frac{\text{Net profit after tax} + \text{Tax Provision}}{\text{Sales}} \times \text{sales} \\ &= \frac{\text{Rs. } 4,20,000 + 3,15,000}{\text{Rs. } 27,00,000} \times 100 = 27.7\% \end{aligned}$$

Net profit ratio or margin indicates how many paise out of a rupee of sales represented by the net profit. In the given case, the firm has earned around 28paise for every one rupee of sales before paying the tax, while around 16paise after paying the tax.

3) Operating Profit Ratio

$$\text{Operating profit margin} = \frac{\text{Operating profit}}{\text{Sales}} \times 100$$

Operating profit = Sales - (Cost of goods sold + Selling, Distribution, General and Administrative overheads + Depreciation)

$$\begin{aligned} &= \frac{\text{Rs. } 27,00,000 - (\text{Rs. } 14,70,000 + \text{Rs. } 2,20,000 + \text{Rs. } 1,75,000)}{\text{Rs. } 27,00,000} \times 100 \\ &= \frac{\text{Rs. } 8,35,000}{\text{Rs. } 27,00,000} \times 100 = 30.9 \% \end{aligned}$$

Operating profit is the profit generated purely from the business operations of the firm. In the given case a ratio of 30.9% indicates that out of Re. 1 sales nearly 31paise is the operating profit earned exclusively from the business or trading operations of the firm.

4) Operating Expense Ratio or Operating Ratio

Operating Ratio =

$$\frac{\text{Cost of goods sold} + \text{Selling, Distribution, General and Administrative overheads}}{\text{Sales}} \times 100$$

$$\begin{aligned} &= \frac{(\text{Rs. } 14,70,000 + \text{Rs. } 2,20,000 + \text{Rs. } 1,75,000)}{\text{Rs. } 27,00,000} \times 100 = 69.1 \% \end{aligned}$$

This ratio of 69.9 indicates that out of Re.1 sales around 69paise is invested in purely the business or trading operations of the business.

Profitability ratios in relation to Investment

1) Return on Investment (ROI)

a) Return on Shareholders equity (ROSE)

$$\begin{aligned} &= \frac{\text{Profit after tax}}{\text{Shareholders' equity}} \times 100 \\ &= \frac{\text{Rs. } 4,20,000}{\text{Rs. } 10,16,000} \times 100 = 41.34 \% \end{aligned}$$

$$\begin{aligned} \text{Or} &= \frac{\text{Net profit before tax}}{\text{Shareholders equity}} \times 100 \\ &= \frac{\text{Rs. } 4,20,000 + \text{Rs. } 3,15,000}{\text{Rs. } 10,16,000} \times 100 = 72.34 \% \end{aligned}$$

A return on shareholders' equity of 41.34% after tax 72.34% before tax is an indication that the firm is doing well.

b) Return on Capital Employed (ROCE)

$$\begin{aligned} &= \frac{\text{Profit before Interest and Tax}}{\text{Capital employed}} \times 100 \\ &= \frac{\text{Rs. } 7,35,000 + \text{Rs. } 95,000}{\text{Rs. } 12,66,000} \times 100 = 65.56 \% \end{aligned}$$

$$\begin{aligned} \text{or} &= \frac{\text{Net profit after tax} + \text{Interest}}{\text{capital employed}} \times 100 \\ &= \frac{\text{Rs. } 4,20,000 + \text{Rs. } 95,000}{\text{Rs. } 12,66,000} \times 100 = 40.67 \% \end{aligned}$$

This ratio of 40.67% indicates that the firm is able to earn a return of around 47 paise an after tax profit and around 66 paise of before tax profit on the total long-term funds employed in the firm.

c) Return on Total Assets (ROTA)

$$= \frac{\text{Profit before Interest and Tax}}{\text{Total Assets}} \times 100$$

$$= \frac{\text{Rs. } 7,35,000 + 95,000}{19,65,000-20,000} \times 100 = 42.67\%$$

$$\text{or} = \frac{\text{Net profit after tax} + \text{Interest}}{\text{Total Assets}} \times 100$$

$$= \frac{\text{Rs. } 4,20,000 + 95,000}{19,65,000-20,000} \times 100 = 26.48\%$$

This ratio indicates that the firm is able to earn an after-tax profit of 27% on the investment made in the total assets while around 43% before tax.

2) Return on equity shareholders' equity

$$\text{Return on equity share capital} = \frac{\text{Net profit after tax} - \text{Preference Dividend}}{\text{Equity shareholders' equity}} \times 100$$

$$= \frac{\text{Rs. } 4,20,000 - 24,000}{\text{Rs. } 5,00,000+ 3,16,000} \times 100 = 48.53\%$$

This ratio indicates that the firm is able to earn an after tax return of around 49% on the owners funds invested in the firm.

3) Earnings Per Share

$$\text{Earning per share} = \frac{\text{Net profit after tax} - \text{preference dividend}}{\text{Number of equity shares}}$$

$$= \frac{\text{Rs. } 4,20,000 - 24,000}{5,000 \text{ shares}} = \text{Rs. } 79.20$$

This ratio indicates that the firm is able to earn Rs. 79.20 per equity share after paying the tax and preference dividend.

4) Dividend per Share

$$\text{Dividend per share} = \frac{\text{Equity dividend declared}}{\text{Number of equity shares}}$$

$$= \frac{\text{Rs. } 2,00,000}{5,000 \text{ shares}} = \text{Rs. } 40 \text{ per share}$$

This ratio indicates that the firm has paid a dividend of Rs. 40 per equity share.

5) Dividend Pay-out Ratio

$$= \frac{\text{Dividend per share}}{\text{Earning per share}}$$

$$= \frac{\text{Rs. } 40.00}{\text{Rs. } 79.20} = 0.51$$

A dividend pay-out ratio of .51 indicates that the firm has paid 51 paise as dividend out of every rupee earned per equity share.

Illustration 2

A firm always sells on credit and its total sales relating to a particular year were Rs. 6,40,000. It has a gross profit margin of 15%; current ratio of 2.5; stock of Rs. 48,000; cash balance of Rs. 16,000; and current liabilities of Rs. 96,000.

UNIT-5 : Capital Budgetting

- ① $NPBT = CFBT - Dep$ $dep = \frac{Investment}{\frac{- Salvage Value}{Estimated life}}$
- $CFAT = Dept + NPAT$
- $NPAT = NPBT - Tax$
- $Tax = 50\% \text{ of } NPBT$
- $PV = \frac{1}{(1+k)^n}$ $n \rightarrow n^{\text{th}} \text{ year}$
 $k \rightarrow \text{cost of capital}$

② $\underline{ARR} = \frac{\text{Average Annual Net Profit}}{\text{Average Investment}}$

Avg Investment = $\frac{1}{2} (\text{Initial Investment} - \text{salvage}) + \frac{\text{salvage value}}{+ AWC}$

Avg Annual net profit = $\frac{\sum NPAT}{\text{No. of yrs.}}$

③ PBP for even cash flows

$PBP = \frac{\text{Investment}}{\text{Estimated CFAT}}$

④ $NPV = \sum PVCI - \sum PVCO$

$\sum PVCI = CFAT \times AF + S.V \times PVF + AWC \times PVF$

$\sum PVCO = \text{Investment} + AWC$

⑤ PBP for uneven cash flows

Estimated PBP > Calculated PBP \rightarrow Accept
else \rightarrow Reject

Value
life^o

⑥ Fake PBP = $\frac{\text{Initial Investment}}{\text{Avg CFAT}}$

⑦ PI = $\frac{\sum PVCI}{\sum PVCO}$

⑧ IRR = $r - \left[\frac{\sum PVCO - \sum PVCI}{\Delta \sum PVCI} \right] * \Delta r$

↓
only formula & theory
no sums

rent
)

HS

IF

6. Which of the following is not a current asset? (CO4,BTL1)

- Inventory
- Prepaid Insurance
- Fixtures
- Cash

7. Absolute liquid assets are if closing stock is Rs.10000, marketable securities Rs.8000, bank overdraft Rs.5000, creditors Rs.7000, bills payable Rs.3000, cash in hand Rs.4000, debtors Rs.5000 and Furniture Rs.10000 (CO4,BTL4)

- 22000
- 17000
- 12000
- 11000

8. Earnings per share if the net profit is Rs.35000, tax is Rs.5000, preference dividend is Rs.15000 and number of equity shares are 10000. (CO4,BTL4)

- Rs. 3.5
- Rs. 3
- Rs. 5
- Rs. 25

9. Debtors turnover ratio is if debtors are Rs.33000, bills receivable Rs.12000 credit sales Rs.125000, cash sales Rs.25000 (CO4,BTL4)

- 2.66
- 2.66%
- Rs.2.66
- 3.79

10. From the following information, calculate the current assets: Stock 1,20,000, Machinery 30000, Creditors 70,000, Debtors 100,000, Cash balance 10,000, Loan from bank 70000 (CO4,BTL4)

- 40,000
- 220,000
- 180,000
- 230,000

6. Ratios can be expressed as (CO4,BTL2)

- Pure ratio
- Percentage
- Rate
- All of these

7. From the following information, calculate the operating income: Revenue 100000, Gross profit 10000, Net profit 2000, Indirect expenses 10000, Other incomes 1000 (CO4,BTL4)

- 90,000
- 70,000
- 100,000
- 1,20,000

8. Gross profit ratio if net sales are Rs.220000, cost of goods sold is Rs.180000 and interest Rs.2000 is (CO4,BTL4)

- 18.18
- 18.18%
- 17.27 times
- 17.27%

9. Debt to equity ratio is if debentures are Rs.25000 and shareholders funds are Rs.200000, short term loans Rs.5000 (CO4,BTL4)

- 0.15
- 0.125
- 12.5
- 15

10. Current ratio if closing stock is Rs.15000, marketable securities Rs.10000, bank overdraft Rs.2000, creditors Rs.9000, bills payable Rs.2000, cash in hand Rs.3000, debtors Rs.7000 and Goodwill Rs.15000 (CO4,BTL4)

- 3.5
- 3.84
- 3.6
- 3.1

VASAVI COLLEGE OF ENGINEERING,IBRAHIMBAGH
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
QUIZ III (CIRCLE THE RIGHT ANSWER)

NAME:
HALL TICKET NO.

BRANCH:
SECTION:

Each question carries 0.5 mark (0.5 X 10 = 5)

1. Accounting is _____ of business (CO3,BTL1)

- Language
- Activity
- Process
- Performance

2. The types of accounts are (CO3,BTL1)

- One
- Two
- Three
- Four

3. Trading account is a _____ account (CO3,BTL1)

- Real
- Nominal
- Personal
- Journal

4. Which of the following rule applies to Nominal Accounts? (CO3,BTL1)

- "Debit What Comes In - Credit What Goes Out"
- "Debit The Receiver - Credit The Giver"
- "Debit All Expenses/Losses - Credit All Gains/Incomes "
- None of these

5. Balance sheet reflects _____ position (CO3,BTL1)

- Profitability
- Financial
- Activity
- Country

VASAVI COLLEGE OF ENGINEERING, IBRAHIMBAGH
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
QUIZ III (CIRCLE THE RIGHT ANSWER)

NAME:

BRANCH:

HALL TICKET NO.

SECTION:

Each question carries 0.5 mark (0.5 X 10 = 5)

1. Which of the following statement is true (CO3,BTL1)
 - Expenses are nominal accounts
 - Persons are real accounts
 - Gains are personal accounts
 - Assets are nominal accounts

2. The rule of "Debit What Comes In - Credit What Goes Out" applies to which of the following types of accounts? (CO3,BTL1)
 - Real Account
 - Personal Account
 - Nominal Account
 - None of these

3. Direct expenses are shown in (CO3,BTL1)
 - Profit and loss account
 - Trading account
 - Balance sheet
 - Trial balance

4. Journal is a _____ book of entry
 - Correct
 - Secondary
 - Primary
 - company

5. Balance sheet is a _____ statement
 - Journal
 - Ledger
 - Period
 - Point

5. Cost of the asset is Rs.75000, salvage value Rs.15000, additional stocks maintained Rs.2000, cost of capital 8%, the cash inflows after taxes each year is Rs.25000. The estimated life is 3 years. The PBP is (CO5, BTL3)
- * 3 years
 - * 3
 - * can't say
 - * 2.67 years
6. The two rates under IRR must give (CO5, BTL3)
- * one positive NPV and one negative NPV
 - * Both positive NPV's
 - * Both negative NPV's
 - * None of the above
7. Initial investment Rs.70000, salvage value Rs.10000, cost of capital 10%, the cash inflows for three years are Rs.25000, 38000, 42000. The PBP is (CO5, BTL3)
- * Rs.2.09
 - * 2.17
 - * can't determine
 - * 2.17 years
8. Initial investment Rs.170000, salvage value Rs.20000, cost of capital 6%, the net profits after taxes for three years are Rs.17000, 19000, 24000. Additional working capital is Rs.2000. The ARR is (CO5, BTL3)
- * 26.67%
 - * 20.62 %
 - * 25.97%
 - * 20.62 years
9. Initial investment Rs.110000, salvage value Rs.10000, cost of capital 10%, the cash flows after taxes for 3 years are Rs.30000, 40000, 50000. Additional working capital is Rs.2500. The NPV in Rs. is (CO5, BTL3)
- * -5252.5
 - * 5252.5
 - * -2752.5
 - * 2752.5
10. IRR computation formula is (CO5, BTL3)

VASAVI COLLEGE OF ENGINEERING,IBRAHIMBAGH
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
QUIZ II (CIRCLE THE RIGHT ANSWER)

NAME:

BRANCH:

HALL TICKET NO.

SECTION:

Each question carries 0.5 mark (0.5 X 10 = 5)

1. Cash outlay Rs.105000, salvage value Rs.5000, additional stocks maintained Rs.2000, cost of capital 10%, the returns after deducting depreciation and tax each year is Rs.10000. The estimated life is 3 years. ARR is (CO5, BTL3)
 - * Rs.17.54
 - * 18.18%
 - * 17.54%
 - * 23.08%

2. Cash outlay Rs.125000, salvage value Rs.25000, additional stocks maintained Rs.1000, cost of capital 12%, the returns before deducting depreciation and after tax each year is Rs.45000. The estimated life is 3 years. NPV is Rs (CO5, BTL3)
 - * -602
 - * -1602
 - * 1602
 - * 602

3. Cash outlay Rs.110000, salvage value Rs.10000, additional stocks maintained Rs.5000, cost of capital 8%, estimated life is 3 years, the returns after deducting depreciation and before tax each year is Rs.70000. The cash flows after taxes each year in Rs. is (CO5, BTL3)
 - * 35000
 - * 68333
 - * 70000
 - * 50000

4. Cash outlay Rs. 100000, salvage value Rs.10000, cost of capital 9%, the cash inflows after taxes is Rs.15000. The estimated life is 3 years. PI is (CO5, BTL3)
 - * .380
 - * 0.380 years
 - * 0.457
 - * 2.854

5. Cost of the asset is Rs.225000, salvage value Rs.25000, additional stocks maintained Rs.3000, cost of capital 11%, the cash inflows after taxes each year is Rs.35000. The estimated life is 3 years. The PBP is (CO5, BTL3)

- * Rs.6.43
- * 6.43
- * can't say
- * 6.43 years

6. The two rates under IRR must give one positive NPV and one negative NPV as at IRR (CO5, BTL3)

- * Sum PVCI is Zero
- * Sum PVCO is Zero
- * NPV is Zero
- * IRR is Zero

7. Initial investment Rs.170000, salvage value Rs.20000, cost of capital 7%, the cash inflows for three years are Rs.40000, 60000, 80000. The PBP is (CO5, BTL3)

- * Rs.2.12
- * 2.10
- * can't determine
- * 2.12 years

8. Initial investment Rs.120000, salvage value Rs.20000, cost of capital 5%, the net profits after taxes for three years are Rs.15000, 17000, 22000. Additional working capital is Rs.2500. The ARR is (CO5, BTL3)

- * 26.67%
- * 24.83 %
- * 25.71%
- * 20.62 years

9. Initial investment Rs.150000, salvage value Rs.25000, cost of capital 11%, the cash flows after taxes for 3 years are Rs.35000, 45000, 55000. Additional working capital is Rs.2000. The NPV in Rs. is (CO5, BTL3)

- * -23983
- * 23983
- * -21983
- * 21983

10. ARR computation formula is (CO5, BTL3)

VASAVI COLLEGE OF ENGINEERING,IBRAHIMBAGH
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
QUIZ II (CIRCLE THE RIGHT ANSWER)

NAME:

BRANCH:

HALL TICKET NO.

SECTION:

Each question carries 0.5 mark (0.5 X 10 = 5)

1. Cash outlay Rs.125000, salvage value Rs.5000, additional stocks maintained Rs.3000, cost of capital 12%, the returns after deducting depreciation and tax each year is Rs.15000. The estimated life is 3 years. ARR is (CO5, BTL3)
 - * Rs.22.06
 - * 22.06%
 - * 25%
 - * 23.08%

2. Cash outlay Rs.75000, salvage value Rs.5000, additional stocks maintained Rs.1500, cost of capital 10%, the returns before deducting depreciation and after tax each year is Rs.35000. The estimated life is 3 years. NPV is Rs (CO5, BTL3)
 - * -15426.5
 - * 12045
 - * 15800
 - * 15426.5

3. Cash outlay Rs.100000, salvage value Rs.10000, additional stocks maintained Rs.4000, cost of capital 9%, estimated life is 3 years, the returns before deducting depreciation and tax each year is Rs.50000. The cash flows after taxes each year in Rs. is (CO5, BTL3)
 - * 30000
 - * 10000
 - * 40000
 - * 50000

4. Cash outlay Rs.75000, salvage value Rs.15000, cost of capital 8%, the cash inflows after taxes is Rs.25000. The estimated life is 3 years. PI is (CO5, BTL3)
 - * 1.0178
 - * 0.982 years
 - * 0.848
 - * 2.854

VASAVI COLLEGE OF ENGINEERING, IBRAHIMBAGH
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
QUIZ II (CIRCLE THE RIGHT ANSWER)

NAME:
HALL TICKET NO.

SECTION:
BRANCH:

1. Cash outlay Rs.125000, salvage value Rs.5000, additional stocks maintained Rs.3000, cost of capital 12%, the returns before deducting either depreciation or tax each year is Rs.45000. The estimated life is 3 years. ARR is

- * Rs.3.68
- * 3.68%
- * 62.5%
- * 3.67%

2. Cash outlay Rs.75000, salvage value Rs.5000, additional stocks maintained Rs.1500, cost of capital 10%, the returns after deducting depreciation and before tax each year is Rs.35000. The estimated life is 3 years. NPV is Rs

- * 5519.5
- * 118836
- * 117336
- * -7519.5

3. Cash outlay Rs.100000, salvage value Rs.10000, additional stocks maintained Rs.4000, cost of capital 9%, the returns before deducting depreciation and after tax each year is Rs.30000. The estimated life is 6 years with a predetermined PBP as 4 years. The proposal is worth

- * accepting
- * rejecting
- * indifferent
- * can't say

4. Cash outlay Rs.75000, salvage value Rs.15000, additional stocks maintained Rs.2000, cost of capital 8%, the returns after deducting depreciation and tax each year is Rs.25000. The estimated life is 3 years. PI is

- * 1.245
- * 2.854 yrs
- * 0.928
- * 2.854

5. Cost of the asset is Rs.75000, salvage value Rs.15000, additional stocks maintained Rs 2000, cost of capital 8%, the cash inflows after taxes each year is Rs.25000. The estimated life is 3 years. The PBP is
- * 3.42 years
 - * 1.67 years
 - * 4 years
 - * 2.67 years
6. The two rates required to calculate NPV under IRR must give
- * one positive NPV and one negative NPV
 - * Both positive NPV
 - * Both negative NPV
 - * None of the above
7. Initial investment Rs.70000, salvage value Rs.10000, cost of capital 10%, the earnings after taxes for three years are Rs.25000, 38000, 42000. The PBP is
- * Rs.2.09
 - * 2.09 years
 - * can't determine
 - * 3.09 years
8. Initial investment Rs.170000, salvage value Rs.20000, cost of capital 6%, the cash flows after taxes for three years are Rs.57000, 59000, 64000. Additional working capital is Rs.2000. The ARR is
- * 48.62 times
 - * 48.62 %
 - * 10.31%
 - * 25.23%
9. Initial investment Rs.110000, salvage value Rs.10000, cost of capital 11%, the cash flows after taxes for five years are Rs.30000, 40000, 50000, 60000 and 70000. Additional working capital is Rs.2500. The PI is
- * 1.64
 - * 1.52
 - * Rs.1.64
 - * 1.45
10. IRR formula is
- * $r + (\text{sum } pvc_i - \text{sum } pvc_0 / \text{diff sum } pvc_i) * k$
 - * $r - (\text{sum } pvc_i - \text{sum } pvc_0 / \text{diff sum } pvc_i) * k$
 - * $r + (\text{sum } pvc_i - \text{sum } pvc_0 / \text{diff sum } pvc_i) * k$
 - * $r - (\text{sum } pvc_0 - \text{sum } pvc_i / \text{diff sum } pvc_i) * r$

Returns before depreciation
and before tax = CFBT

Returns after depreciation
and before tax = NPBT

Returns before depreciation
and after tax = CFAT

Returns after depreciation and
after tax = NPAT

Earnings before taxes = NPBT

Earnings after taxes = NPAT

Earnings before depreciation &
before tax = CFBT

Earnings after depreciation &
after tax = NPAT

Earnings after depreciation &
before tax = NPBT

Earnings before depreciation &
after tax = CFAT

Trading, Profit .. Loss Accounts and Balance Sheet:

- 1) Identify the nature of trading and profit-loss accounts.
A: Nominal Accounts. ✓
- 2) Gross profit is found in:
A: Trading Account. ✓
- 3) Profit-Loss account gives information about:
A: Net profit. ✓
- 4) Trading and profit-loss account is a _____ statement.
A: Period. ✓
- 5) Balance Sheet is a _____ statement.
A: point. ✓

6) Direct expenses are shown in:

A: Trading Account ✓

7) Indirect expenses and losses are shown in:

A: Profit and Loss Accounts ✓

8) Balance sheet reflects _____ position.

A: financial ✓

9) Capital items appear in:

A: Balance sheet ✓

10) Revenue items appear in:

A: Both trading and profit-loss accounts.

11) Journal is a book of _____ entry.

A: primary and original ✓

(12) Journal is a _____ statement.

A: Period

13) Journal is used to _____ the transaction.

A: record ✓

14) Ledger is used for

A: recording & classifying

15) Ledger is a _____ statement.

A: period ✓

Process of transferring the transactions from journal to ledger is known as:

A: posting ✓

A: is done in trial balance.

A: Recording Summarizing

A: Trial balance is a statement.

A: point ✓

A: Trial balance is an of balances

A: extract , ledger

A: Trial balance should always.

A: Tally / Agree

A: The agreement of trial balance indicates of .

A: with metrical accuracy

A: Accounting is of business

A: language ✓

A: How many types of accounts are there?

A: three ✓

24) Debt all expenses & losses and credit all incomes and gains are the rule for:

A: Nominal Accounts: ✓

25) Which

25) Personal account rules are:

A: Debit - the receiver; ✓
Credit - the giver.

26) Real account involves -

A: assets, liabilities and equity

27) Personal account includes

A: individuals, organizations or entities related to business

28) Nominal accounts includes

A: revenues, expenses, gains & losses. ✓

29) The 3 accounts involved in accounting process are:

A: Real, Nominal & Personal

30) Ratio is the _____ relationship b/w 2 values:

A: Arithmetical

31) Ratios can be expressed as

A: pure ratio, rate, percentage

32) Ratio is a technique of _____ analysis
A: financial.

* 13/12/2023

UNIT-III

FINANCIAL

STATEMENT: (Theory)

Journal.

Ledger

Trial Balance.

→ Types of Accounts:

1) Real Account (Assets)

2) Debit: what comes in & Credit: what goes out.

2) Personal Account

→ Natural (or) Artificial persons.
↓
Organisations & Institutions.

→ Debit: the received
→ Credit: the given

3) Nominal Accounts : (Expenses; Losses & Incomes
Gains).

→ Debit ~~on~~ all expenses & losses

→ Credit ~~on~~ all Incomes & Gains.

calculate ratios.

Ratio is the numerical or an arithmetical relationship between two figures. It is expressing one number in terms of another. i.e., one figure divided by another in order to calculate the ratio. If 4,000 is divided by 10,000, the ratio can be expressed as '4' or $2 : 5$ or 40%.

Utility and Importance (or Advantages) of Ratio Analysis

Ratio analysis stands for the process of determining and presenting the relationship of items and groups of items in the financial statements. It is an important technique of financial analysis. It is a way by which financial stability and health of a concern can be judged. The following are the main points of utility and importance of ratio analysis :

(i) **Useful in financial position analysis.** Accounting ratios reveal the financial position of the concern. This helps the banks, insurance companies and other financial institutions in lending and making investment decisions.

(ii) Useful in simplifying accounting figures. Accounting ratios simplify, summarise and systematise the accounting figures in order to make them more understandable and in lucid form. They highlight the inter relationship which exists between various segments of the business as expressed by accounting statements. Often the figures standing alone cannot help them convey any meaning and ratios help them to relate with other figures.

(iii) Useful in assessing the operational efficiency. Accounting ratios help to have an idea of the working of a concern. The efficiency of the firm becomes evident when analysis is based on accounting ratios. They diagnose the financial health by evaluating liquidity, solvency, profitability etc. This helps the management to assess financial requirements and the capabilities of various business units.

(iv) Useful in forecasting purposes. If accounting ratios are calculated for number of years, then a trend is established. This trend helps in setting up future plans and forecasting. For example, expense as a percentage of sales can be easily forecasted on the basis of sales and expenses of the past years.

(v) Useful in locating the weak spots of the business. Accounting ratios are of great assistance in locating the weak spots in the business even though the overall performance may be efficient. Weakness in financial structure due to incorrect policies in the past or present are revealed through accounting ratios. For example, if a firm finds that increase in distribution expenses is more than proportionate to the results expected or achieved, it can take remedial steps to overcome the adverse situation.

(vi) Useful in comparison of performance. Through accounting ratios comparison can be made between one department of a firm with another of the same firm in order to evaluate the performance of various departments in the firm. Manager is naturally interested in such comparison in order to know the proper and smooth functioning of such departments. Ratios also help him to make any change in the organisational structure.



1.8 ACCOUNTING CYCLE

An accounting cycle is a complete sequence beginning with the recording of the transactions and ending with the preparation of the final accounts. The sequential steps involved in an accounting cycle are as follows :

Step 1 : Journalizing : Record the transactions and events in the Journal.

Step 2 : Posting : Transfer the transactions in the respective accounts opened in the Ledger.

Step 3 : Balancing : Ascertain the difference between the total of debit amount column and the total of credit amount column of a Ledger account.

Step 4 : Trial Balance : Prepare a list showing the balance of each and every account to verify whether the sum of the debit balances is equal to the sum of the credit balances.

Step 5 : Income Statement : Prepare Trading and Profit and Loss Account to ascertain the profit or loss for accounting period.

Step 6 : Position Statement (Balance Sheet)

Prepare the Balance Sheet to ascertain the financial position as at the end of accounting period.

1.9 FINANCIAL ACCOUNTING

Accounting is often referred to as the language of the business. Financial accounting is concerned with recording of day to day transactions.

1.16 JOURNAL

Journal means a day book or daily record. It is the book wherein all the transactions are first recorded in chronological order. It is a book of prime, original or first entry, as all business transactions are first recorded in the journal. From journal the posting are made in the ledger. Journal is only subsidiary book i.e., a book which is sub-ordinate to the ledger.

Which is the principal book of accounts ? The journal analyses the various transactions into their debits and credits so that they could be easily posted to the ledger accounts. In other words journal is helpful in the preparation of accounts in the ledger. The process of recording transactions in journal is termed as 'Journalizing'.

Advantages of Journal

- 1) It provides date wise record for all business transactions.
- 2) It provides an explanation of the transactions.
- 3) It shows all the necessary information regarding a transaction.
- 4) It helps to locate and prevent errors.

1.17 LEDGER

A number of transactions take place daily in a business. All these transactions are recorded in the journal in a chronological order. Transactions relating to particular account may take place in different dates and hence they are entered in different pages of the journal. By referring to the journal, it will not be possible to find out the position

Scanned with OKEN Scanner

FINANCIAL ACCOUNTING AND ANALYSIS (JNTU-HYD)

relating to any particular account on given date. To overcome this, necessity arises, for classifying the various transactions relating to a particular account to one place. This is done by posting them into ledger.

Ledger is a book which contains various accounts. Ledger is a set of accounts. It contains all accounts of the business whether Real, Nominal or Personal. With the help of ledger the trader can ascertain the true position of any account on any date. Ledger contains classified summary of the transactions which are recorded in the journal.

Ledger is the principal books of accounts where similar transactions relating to a particular person or thing are recorded. It helps the trader to achieve the objects of book-keeping.

Posting

1.18 DISTINGUISH BETWEEN JOURNAL AND LEDGER

1. The journal is a book of original (i.e., first) entry whereas the ledger is the book of second entry. In otherwords, transactions recorded in the journal have to be further processed by doing posting from the journal to the ledger.
2. In the journal, transactions are recorded in the chronological order as and when they occur whereas the ledger is a book for analytical record. Transactions pertaining to a particular account appear at one place. For example, there may be twenty transactions relating to Trade Expenses Account scattered at different places in the journal in order of their sequence of occurrence. These transactions will appear in Trade Expenses Account in the ledger at one place.
3. In case of disputes, the journal as a book of source entry has greater weight as legal evidence than the ledger. However, for accounting purposes, ledger is the main source of information.
4. The journal is a subsidiary book which helps in the preparation of the principal book of account (i.e., ledger).
5. The unit of classification of data in the journal is the transaction whereas the unit of classification of data in the ledger is the account.
6. The process of recording financial transactions in the journal is called journalising whereas the process of recording transactions in the ledger is known as posting.

1.19 TRIAL BALANCE

After posting the accounts in the ledger, a statement is prepared to show separately

1.19 TRIAL BALANCE

After posting the accounts in the ledger, a statement is prepared to show separately the debit and credit balances. Such a statement is known as the Trial Balance. It may also be prepared by listing each and every account and entering in separate columns the totals of the debit and credit sides. Whichever way it is prepared, the totals of the two columns should agree. An agreement indicates reasonable accuracy of the accounting work; if the two sides do not agree, then there is simply an arithmetic error(s).

This follows from the fact that under the double entry system, the amount written on the debit side of various accounts is always equal to the amounts entered on the credit side of other accounts and vice versa. Hence the totals of the debit sides must be equal to the totals of the credit side. Also, total of the debit balances will be equal to the total of the credit balances.

Once this agreement is established, there is a reasonable confidence that the accounting work is free from clerical errors, though is not proof of cent percent accuracy, because some errors of principles and compensating errors may still remain.

Generally, to check the arithmetic accuracy of accounts, trial balance is prepared at monthly intervals. But because double entry system is followed, one can prepare a trial balance at anytime. Though a trial balance can be prepared anytime, but it is preferable to prepare it at the end of the accounting year to ensure the arithmetic accuracy of all the accounts before the preparation of the financial statements. It may be noted that trial balance is a statement and not an account.

Limitations of Trial Balance

One should note that the agreement of trial balance is not a conclusive proof of accuracy. In spite of the agreement of the trial balance some errors may remain. These may be of the following types :

- 1) Transaction has not been entered at all in the journal.
- 2) Wrong amount has been written in both column of the journal.
- 3) A wrong amount has been mentioned in the journal.
- 4) An entry has not at all been posted in the ledger.
- 5) Entry is posted twice in the ledger.

- 5) Entry is posted twice in the ledger.

1.22 TRADING ACCOUNT

Preparation of Trading Account is the first stage in the Final Accounts. Trading Account is prepared by the trader for ascertaining the gross profit or gross loss. This account is prepared to find out the difference between the actual cost of the goods sold and the sale proceeds. It shows the profit or loss made by purchase and sale of goods without taking into account all the items of business expenditure such as general distributive and administrative expenses. Therefore, in the trading account it is necessary to include all items of charge directly affecting the cost of goods sold.

Gross Profit is said to be made when the sale proceeds exceed the cost of goods sold. When sale Proceeds are less than the cost of the goods sold, gross loss is incurred. The following is the usual form of a Trading Account.

1.24 PROFIT & LOSS ACCOUNT

~~Financial Statement~~ The Trading Account is prepared to ascertain the gross profit or gross loss made by the Trader for any given period. The next step in the preparation of Final Accounts is to prepare a Profit and Loss Account. The main object of the profit and loss account is to know the net profit or net loss made by the business for a particular period.

The Trading Account is closed by transferring the gross profit or gross loss to the Profit and Loss Account. Therefore the Profit and Loss Account starts with gross profit on the credit side or with gross loss on the debit side as the case may be.

- c) Financial expenses
- d) Maintenance and depreciation expenses

The expenses come under each head is given in the specimen form of Profit and Loss Account. The following is the specimen form of a Profit and Loss Account.

Profit and Loss Account for period ending

Dr.			Cr.
	Rs.		Rs.
To Administrative expenses		By	
Office Salaries	xxx	Gross Profit b/d	xxx
Office Rent, Rates and Taxes	xxx	- Discount Received	xxx
Office lighting	xxx	- Commission received	xxx
Office Insurance	xxx	- Interest received	xxx
Printing & Stationery	xxx	- Rent received	xxx
Postage and Telegrams	xxx	- Dividends	xxx
Legal expenses	xxx	- Income from investments	xxx
Audit fee	xxx	- Reserve for discount on	
General expenses	xxx	Creditors	xxx
Repairs & renewals	xxx	- Bad Debts recovered	xxx
Bank charges & commission	xxx	- Apprentice premium	xxx
		- Profit on sales of asset	xxx
		- Sundry incomes	xxx
		- Net loss	xxx
To Selling and Distribution expenses :			
Godown Rent & Insurance	xxx		
Packing expenses	xxx		
Advertising	xxx		
Agents Commission	xxx		
Bad debts	xxx		
Travelling expenses	xxx		
Discount allowed	xxx		
Brokerage	xxx		

Trading Account of --- for the year ending ---

Dr.			Cr.
To Opening stock	xxx	By Sales	xxx
" Purchases	xxx	Less : Returns	xxx
Less : Returns	xxx	xxx	
" Wages	xxx	" Goods destroyed in fire	xxx
" Carriage inwards	xxx	" Closing Stock	xxx
" Freight	xxx		
" Duty and clearing charges	xxx		
" Marine insurance	xxx		
" Dock expenses	xxx		
" Gross profit c/d	xxx		
	<hr/>		<hr/>
	xxx		xxx
	<hr/>		<hr/>

Note :

- When credit side of the Trading Account is more than the debit side, the difference represents Gross Profit.
- When the debit side of the Trading Account is more than the credit side, the difference represents Gross Loss.
- Expenses relating to the trading period should be taken into consideration.

24 PROFIT & LOSS ACCOUNT

Trading Account is prepared to ascertain the gross profit or gross loss made by Trader for any given period. The next step in the preparation of Final Accounts is to



1.26 DISTINCTION BETWEEN TRIAL BALANCE AND BALANCE SHEET

The following are the differences between a Trial Balance and a Balance Sheet.

Trial Balance	Balance Sheet
<ul style="list-style-type: none">1. The main purpose of preparing a Trial Balance is to check the arithmetical accuracy of the books of account.2. The Trial Balance contains all three types of accounts viz., Personal, Real and Nominal Accounts.3. Trial Balance does not reveal the financial position of the business.4. Trial Balance does not reveal profit.5. The column heads of Trial Balance are date, particulars, debit and credit.6. The preparation of the Trial Balance is not compulsory.7. Closing stock will not be shown in Trial Balance.	<ul style="list-style-type: none">1. The main object of the Balance Sheet is to ascertain the correct financial position of a business at a given date.2. Balance Sheet contains only the balances of real and personal accounts.3. Balance Sheet reveals the financial position of the Business.4. Balance Sheet reveals the profit.5. The column heads of the Balance Sheet are Assets and Liabilities.6. The preparation of Balance Sheet is compulsory.7. Closing stock is shown in the Balance Sheet.