

Ratio Analysis

Rs.

	Rs.		
Share Capital	1,00,000	Fixed Assets :	1,20,000
Fixed Liabilities :		Plant	70,000
6% Development Loan	60,000	Land and Building	20,000
7% Mortgage Loan	3,000	Furniture and Fixtures	20,000
Current Liabilities	1,56,000	Current assets :	20,000
Capital Reserves	8,500	Stock	40,000
P. & L. A/c : Rs.	5,800	Debtors	15,000
Balance	13,200	Cash in hand and at bank	15,000
For the year	19,000		
<i>Less : Provision for tax</i>	1,000		
	18,000		
<i>Less : Dividend</i>	2,500	15,500	
	<hr/>	<hr/>	<hr/>
	3,45,000		3,45,000
	<hr/>		<hr/>

Ans. [9.84]

3. Compute the three major types of return on investment ratios used to measure the profitability of a firm in relation to investment. The information given as under is to be used for this purpose.

Net worth (shareholders equity) Rs. 7,50,000 ; Preference share capital Rs. 2,00,000 ; Preference share dividend Rs. 16,000 ; Capital employed Rs. 11,00,000 ; Intangible assets Rs. 1,40,000 ; Total assets Rs. 12,65,000 ; Net profit after taxes Rs. 1,50,000 ; Interests Rs. 23,500.

Ans. [Return on Investments 13.63% ; Return on Total Assets 11.86% ; Return on Equity Shareholders 17.87%]

4. Radiant Engineering Ltd. has the following capital structure :

	Rs.
% Preference shares of Rs. 100 each	10,00,000
Equity Shares of Rs. 10 each	40,00,000
	<hr/>
	50,00,000

The following informations relating to the financial year just ended are :

$$(xii) \text{ Sales to Fixed Assets} \\ = \frac{\text{Sales}}{\text{Fixed Assets}} = \frac{8,50,000}{2,30,000} \\ = 3.7 : 1$$

$$(xiii) \text{ Sales to Capital Employed}$$

$$= \frac{\text{Sales}}{\text{Capital Employed}} \\ = \frac{8,50,000}{3,50,000} = 2.43 : 1$$

$$(xiv) \text{ Return on Total Resources}$$

$$= \frac{\text{Net Profit}}{\text{Total Assets}} \times 100 = \frac{\text{Rs. } 1,50,000}{\text{Rs. } 4,80,000} \times 100 = 31\%$$

The business has given a return of 31% on total resources during the year 1985, i.e., for every Rs. 100 of total resources, Rs 31 are earned.

$$(xv) \text{ Turnover of Fixed Assets}$$

$$= \frac{\text{Net Sales}}{\text{Fixed Assets}} = \frac{\text{Rs. } 8,50,000}{\text{Rs. } 2,30,000} = 3.7 : 1$$

Fixed assets here are land and buildings and plant and machinery

$$(xvi) \text{ Turnover of Total Assets}$$

$$= \frac{\text{Net Sales}}{\text{Total Assets}} = \frac{\text{Rs. } 8,50,000}{\text{Rs. } 4,80,000} = 1.77 : 1$$

The ratio is less than the desirable ratio of 2 : 1, i.e., the value of sales is not as much as it should be.

III. Financial Ratios

These ratios are calculated to judge the financial position of the concern from long-term as well as short-term solvency point of view. The following are the ratios which are calculated in this respect.

1. **Current Ratio or Working Capital Ratio.** This is the most widely used ratio. It is ratio of current assets to current liabilities. It is expressed as follows :

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

Analysis Ratio Analysis

$$= \frac{10,00,000}{19,00,000} = 10 : 19 \text{ or } .526 : 1$$

(vi) Debt to Equity Ratio

Rs.	$\frac{\text{Long Term Debts}}{\text{Shareholders' Funds}}$
5,00,000	
6,00,000	
7,00,000	
1,00,000	
5,00,000	
30,000	
1,50,000	
2,00,000	
20,000	
9,00,000	$= \frac{5,00,000}{20,00,000} = .25 : 1$
9,00,000	$= \frac{\text{Long Term Debts}}{\text{Shareholder's Funds} + \text{Long Term Debts}}$
9,00,000	$= \frac{5,00,000}{25,00,000} = .20 : 1$

(vii) Proprietary Ratio

$$= \frac{\text{Shareholders' Fund}}{\text{Total Assets}}$$

$$= \frac{20,00,000}{29,00,000} = 20 : 29 \text{ or } .69 : 1$$

(viii) Capital Gearing Ratio

$$= \frac{\text{Fixed Interest Bearing Securities}}{\text{Equity Share Capital}}$$

$$= \frac{10,00,000}{10,00,000} = 1 : 1$$

(ix) Fixed Asset Ratio

$$= \frac{\text{Fixed Assets}}{\text{Capital employed}}$$

$$= \frac{19,00,000}{20,00,000}$$

$$=.95 : 1$$

V. Leverage Ratios

Leverage refers to an increased means of accomplishing some purpose. In financial management, it refers to employment of funds to accelerate rate of return to owners. It may be favourable or unfavourable. When earnings are more than the fixed cost of these funds, it is called favourable. An unfavourable leverage exists if the rate of return remains to be lower. It can be used as a tool of financial planning by the finance manager. Leverage may be :

- (i) Operating leverage, and (ii) financial leverage.

Ratio Analysis

BALANCE SHEET

Liabilities	Rs.	Assets	Rs.
Issued Capital— 2,000 Equity Shares of Rs. 100 each	2,00,000	Land and Buildings	1,50,000
	90,000	Plant and Machinery	80,000
Reserves	90,000	Stock in Trade	1,49,000
Other Current Liabilities	60,000	Sundry Debtors	41,000
Profit and Loss Account	40,000	Cash and Bank Balance	30,000
Bills Payable	<hr/>	Bills Receivable	<hr/>
	4,80,000		4,80,000

From the above statements you are required to calculate the following ratios :

(i) Gross Profit Ratio, (ii) Net Profit Ratio, (iii) Operating Profit Ratio, (iv) Operating Ratio, (v) Return on Capital Employed, (vi) Net Profit to Fixed Asset Ratio (vii) Stock Turnover Ratio, (viii) Receivable Turnover Ratio, (ix) Creditors Turnover Ratio, (x) Sales to Working Capital, (xi) Sales to Fixed Assets, (xii) Sales to Capital Employed (xiii) Return on Total Resources, (xiv) Turnover of Fixed Assets, (xv) Turnover of Total Assets.

Additional Information. Average Receivable Rs. 85,000.

Solution

$$(i) \text{ Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 \\ = \frac{3,40,000}{8,50,000} \times 100 = 40\%$$

$$(ii) \text{ Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100 \\ = \frac{1,50,000}{8,50,000} \times 100 = 17.65\%$$

(iii) Operating Profit Ratio

$$= \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100 \\ = \frac{1,45,000}{8,50,000} \times 100 = 17.06\%$$

(iv) Operating Ratio

$$= \frac{\text{Cost of goods sold} + \text{Operating Exp.}}{\text{Net Sales}} \times 100 \\ = \frac{5,10,000 + 1,95,000}{8,50,000} \times 100 = 82.94\%$$

Ratio Analysis

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

Suppose the cost of goods sold is Rs. 4,50,000 and Average Stock is Rs. 1,50,000. Then Stock Turnover Ratio will be 3 times i.e. ($Rs. 4,50,000 \div Rs. 1,50,000$).

6. **Receivables (Debtors) Turnover Ratio** This ratio measures the accounts receivables (trade debtors and bills receivables) in terms of number of days of credit sales during a particular period. This ratio is calculated as follows :

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Debtors}}$$

The collection period is calculated as under :

$$\text{Collection Period} = \frac{365}{\text{Debtors Turnover Ratio}}$$

Or

$$\frac{\text{Average Debtors}}{\text{Net Credit Sales}} \times \text{No. of days in a period.}$$

This ratio is a measure of the collectibility of accounts receivables and tells about how the credit policy of the company is being enforced. Suppose, a company allows 30 days credit to its customers and the ratio is 45 ; it is a cause of anxiety to the management because debts are outstanding for a period of 45 days. Efforts should be made to make the collection machinery efficient so that the amount due from debtors may be realised in time. Higher the ratio, more the chances of bad debts and lower the ratio, less the chances of bad debts. Suppose Debtors in the beginning Rs. 40,000 ; Debtors at the end Rs. 50,000 ; Credit sales during the year Rs. 2,25,000. Then debtors turnover ratio and collection period will be calculated as under :

Debtors Turnover Ratio

$$= \frac{\text{Credit Sales}}{\text{Average Debtors}} = \frac{2,25,000}{45,000}$$

= 5 times.

Collection Period

$$= \frac{\text{Days in a year}}{\text{Debtors Turnover Ratio}}$$

$$= \frac{365}{5} = 73 \text{ days.}$$

The higher the ratio, the greater are the profits. A low capital turnover ratio should be taken to mean that sufficient sales are not being made and lower are the profits.

2. Sales to Fixed Assets or Fixed Assets Turnover Ratio. This ratio expresses the number of times fixed assets are being turned over in a stated period. It is calculated as under :

$$\frac{\text{Sales}}{\text{Net Fixed Assets (i.e., Fixed Assets less Depreciation)}}$$

This ratio shows how well the fixed assets are being used in the business. The ratio is important in case of manufacturing concerns because sales are produced not only by use of current assets but also by amount invested in fixed assets. The higher is the ratio, the better is the performance. On the other hand, a low ratio indicates that fixed assets are not being efficiently utilised.

3. Sales to Working Capital or Working Capital Turnover Ratio. This ratio shows the number of times working capital is turned-over in a stated period. It is calculated as follows :

$$\frac{\text{Sales}}{\text{Net Working Capital (i.e., Current Assets—Current Liabilities)}}$$

The higher is the ratio, the lower is the investment in working capital and the greater are the profits. However, a very high turnover of working capital is a sign of overtrading and may put the concern into financial difficulties. On the other hand, a low working capital turnover ratio indicates that working capital is not efficiently utilised.

4. Total Assets Turnover Ratio. This ratio is calculated by dividing the net sales by the value of total assets. A high ratio is so that an indicator of overtrading of total assets while a low ratio reveals idle capacity. The traditional standard for the ratio is two times.

5. Stock Turnover Ratio. This ratio, also known as inventory sales turnover ratio, establishes relationship between cost of goods sold and cost during a given period and the average amount of inventory held during that period. This ratio reveals the number of times finished stock is turned over during a given accounting period. Higher the ratio, the better it is because it shows that finished stock is rapidly turned-over. On the other hand, a low stock turnover ratio is not desirable because it reveals the accumulation of obsolete stock, or the carrying of too much stock. This ratio is calculated as follows :

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock held during the period}}$$

Where,

$$\begin{aligned}\text{Cost of goods sold} &= \text{Opening Stock} + \text{Purchases} + \text{Manufacturing Expenses} - \text{Closing Stock} \\ &\quad \text{or Sales} - \text{Gross Profit}\end{aligned}$$

13. Dividend Yield Ratio. This is computed as under:

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend per share}}{\text{Market price per share}} \times 100$$

This ratio is important for those investors who are interested in the dividend income. As the shareholder purchases the shares in the open market, so his yield (rate of return) is not equal to the dividend declared by the company. In fact, he calculates dividend per share by dividing the rate of dividend by paid-up value of share. Then he calculates yield by dividing dividend per share by the market price of share. For example, if a company declares 15% dividend and its share is of Rs. 6 paid-up and the market price of which is Rs. 9, then the yield will be calculated as under :

$$\text{Dividend per share} = \frac{15}{100} \times 6 = \text{Re. } 0.90$$

$$\begin{aligned}\text{Dividend Yield Ratio} &= \frac{\text{Dividend per share}}{\text{Market price per share}} \times 100 \\ &= \frac{0.90}{9.00} \times 100 = 10\%\end{aligned}$$

Thus, in the above case, the effective earning rate to the investor in equity share is 10% and not 15% as declared by the company.

Illustration 1. The capital of R.J. Co. Ltd. is as follows :

9% Preference Shares of Rs. 10 each	3,00,000
Equity Shares of Rs. 10 each	8,00,000

The Accountant has following information : (i) Profit (after tax) Rs. 2,70,000 ; (ii) Equity dividend paid 20% ; (iii) Market price of equity shares Rs. 40 each ; (iv) Depreciation Rs. 4,60,000.

You are required to state the following showing the necessary workings :

(a) dividend yield on equity shares, (b) cover for preference and equity dividend, (c) earnings for equity shares, and (d) price earning ratio.

Solution

(a) Dividend yield on equity shares

= % of Dividend paid

in order to find out the net income available for equity shareholders. The performance and prospects of the company are affected by earning per share. If earning per share increases, there is a possibility that the company may pay more dividend or issue bonus shares. In short the market price of the share of a company will be affected by all these factors.

Though the earning per share is the most widely published data, yet it should be used cautiously as earning per share cannot represent the various financial operations of the business. Moreover, the financial data collected in respect of different companies may be affected by different practices followed by the companies relating to stock in trade, depreciation etc. This ultimately will affect the calculation of earning per share and that is why earning per share should be used with precaution while comparing the performance and prospects of two companies.

11. Price Earning Ratio. This is computed by the following formula :

$$\text{Price Earning Ratio} = \frac{\text{Market price per equity share}}{\text{Earning per share}}$$

For example, if the company's share price is Rs. 40 and the earning per share is Rs. 10 then price earning ratio is four (*i.e.*, 40/10). Or, it means that the market value of every rupee of earning is four times. It is a very important ratio in order to know whether the shares of the company are undervalued or in predicting the future market price. This can be done by comparing the price earning ratios of the two companies. For example, if earning per share in Delhi Ltd. is Rs. 10 and the market price of its equity share is Rs. 40 while price earning ratio of other companies is 5, then it can be concluded that the equity share of Delhi Ltd. is undervalued by Rs. 10. This ratio helps the shareholders to decide whether shares should be purchased or not in a company. If the shares are to be purchased, then it indicates the possibility of capital appreciation.

12. Payout Ratio. This is determined as follows :

$$\text{Payout Ratio} = \frac{\text{Dividend per equity share}}{\text{Earning per share}}$$

This ratio indicates as to what proportion of earning per share has been used for paying dividend and what has been retained for ploughing back. This ratio is very important from shareholder's point of view as it tells him that if a company has used whole or substantially the whole of its earnings for paying dividend and retained nothing for future growth and expansion purposes, then there will be very dim chances of capital appreciation in the price of shares of such company. In other words, an investor who is more interested in capital appreciation must look for a company having low payout ratio.

Shareholders' Funds = Equity Share Capital + Preference Share Capital + Capital Reserves + Revenue Reserves + Balance of Profit and Loss Account - Fictitious Assets.

Suppose profit after interest taxes and preference dividend is Rs. 5,00,000 and shareholders' funds is Rs. 25,00,000. Then return on shareholders' investment will be 20% [i.e., (Rs. 5,00,000 ÷ Rs. 25,00,000) × 100].

The ratio of net profit to shareholders' funds shows the extent to which profitability objective is being achieved. Higher the ratio, the better it is.

8. Return on Total Assets. This ratio is calculated to measure the profit after tax against the amount invested in total assets to ascertain whether assets are being utilized properly or not. It is calculated as under :

Return on Total Assets

$$= \frac{\text{Net Profit after Tax}}{\text{Total Assets}} \times 100$$

Suppose net profit after tax is Rs. 20,000 and total assets are Rs. 1,00,000. Return on total assets will be 20% [i.e., (Rs. 20,000 ÷ Rs. 1,00,000) × 100]. The higher the ratio, the better it is for the concern.

9. Debt Service Ratio or Fixed Charges Cover This ratio is important from lender's point of view and indicates whether the business can earn sufficient profits to pay periodically the interest charges on fixed or long-term loans or debentures. It is calculated as follows :

$$\text{Debt Service Ratio} = \frac{\text{Net profit before interest and tax}}{\text{Interest on fixed (long-term) loans or debentures}}$$

Suppose the net profit before interest and tax is Rs. 2,00,000 and interest on fixed (long-term) loans and debentures is Rs. 20,000. Then debt service ratio will be 10 times [i.e., Rs. 2,00,000 ÷ Rs. 20,000]. The more the ratio, the more is the margin of safety for the lenders. If the ratio is one (i.e. profits are just equal to interest), it will show a bad position of the company as nothing will be left for shareholders and will be unsafe for the lenders so.

10. Earning per share. It is calculated as follows :

$$\text{Earning per share} = \frac{\text{Net Income} - \text{Preference Dividend}}{\text{Number of Equity Shares}}$$

If there are both preference and equity shares capital, then out income first of all preference dividends should be deducted

(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 organisation structure.

Limitations of Accounting Ratios

Ratio analysis is very important in revealing the financial position and soundness of the business. But, in spite of its advantages, it has some limitations which restrict its use. These limitations should be kept in mind while making use of ratio analysis for interpreting the financial statements. The following are the main limitations of Accounting ratios :

1. *False results if based on incorrect accounting data.* Accounting ratios can be correct only if the data (on which they are based) are correct. Sometimes, the information given in the financial statements is affected by window dressing, i.e., showing

Ratio Analysis

One of the technique of analysis of financial statements is to 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%.

Absolute figures are valuable but they standing alone convey no meaning unless compared with another. Accounting ratios show their inter relationships which exist among various accounting data. So when relationships among various accounting data supplied by financial statements are worked out, they are known as accounting ratios.

Accounting ratios can be expressed in various ways such as :

(i) a pure ratio say ratio of current assets to current liabilities is 2 : 1 or

(ii) a rate say current assets are two times of current liabilities or

(iii) a percentage say current assets are 200% of current liabilities.

Each method of expression has a distinct advantage over the other. The analyst will select that mode which will best suit his convenience and purpose.

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.

Ratio Analysis

The ratio differs from the operating profit ratio in as much as it is calculated after deducting non-operating expenses, such as loss on sale of fixed assets etc., from operating profit and adding non-operating income like interest or dividends on investments, profit on sale of investments or fixed assets, etc., to such profit. Higher the ratio, the better it is because it gives idea of improved efficiency of the concern.

6. Return on Capital Employed. This ratio is an indicator of the earning capacity of the capital employed in the business. By capital employed, we mean not only the equity share capital, but also in addition to that the various fixed liabilities representing borrowed amount as also capital reserves, revenue reserves, undistributed profit as reduced by the fictitious assets. This ratio is calculated as follows :

$$\text{R} = \frac{\text{Net Profit}}{\text{Capital Employed}} \times 100$$

Here,

Net Profit = Net trading profit after depreciation but before interest on fixed liabilities representing borrowed amount, dividend on shares and taxation. Some people take profits after taxation.

Capital Employed = Equity Share Capital + Preference Share Capital + Undistributed Profit + Reserves and Surplus + Fixed Liabilities - Fictitious Assets.

Alternatively, Fixed Assets + Current Assets - Current Liabilities.

This ratio is considered to be the most important ratio because reflects the overall efficiency with which capital is used. This ratio is a helpful tool for making capital budgeting decisions ; a project yielding higher return is favoured. For example, if the capital employed is Rs 1,00,000 and net profit before interest, tax and dividend is Rs. 15,000, the return on capital employed will be % (i.e., $15,000 \div 1,00,000 \times 100$).

7. Return on Shareholders' Investment or Owners' Net Capital Ratio. This ratio, also called return on proprietors' funds, is a measure of the percentage of net profit to shareholders' funds. The ratio is expressed as follows :

Return on Shareholders' Investment Ratio

$$= \frac{\text{Net Profit}}{\text{Shareholder's Funds}} \times 100$$

Here,

Net Profit = Net profit left after the payment of taxes, interest on long-term liabilities and Preference Dividend.

Ratio Analysis

(b) Cover for the Preference and Equity dividends :

(i) Preference dividend

$$= \frac{\text{Profit after Tax}}{\text{Dividend on Pref. Shares}} = \frac{2,70,000}{27,000} = 10 \text{ times}$$

(ii) Equity dividend

$$= \frac{\text{Net Profit after Preference Dividend}}{\text{Dividend on Equity Share Capital}}$$

$$= \frac{2,43,000}{1,60,000} = 1.52 \text{ times}$$

(c) Earnings for equity shares

$$= \frac{\text{Net Profit less Preference Dividend}}{\text{Number of Equity Shares}}$$

$$= \frac{2,43,000}{80,000} = \text{Rs. } 3.03 \text{ per share}$$

(d) Price earning ratio

$$= \frac{\text{Equity Share Capital}}{\text{Profit after tax less prior charges}} \times \frac{\text{Market Price of Share}}{\text{Nominal Value of Share}}$$

Or

$$= \frac{\text{Market Price per equity share}}{\text{Earning per share}} = \frac{40}{3.03} = 13.17.$$

II. Turnover (or Performance or Activity) Ratios

These ratios are very important for a concern to judge how well facilities at the disposal of the concern are being used or to measure the effectiveness with which a concern uses its resources at its disposal. These ratios are usually calculated on the basis of sales or cost of sales and are expressed in integers rather than as a percentage. Such ratios should be calculated separately for each type of asset. Higher the turnover ratio, the better the profitability and use of capital or resources will be. The following are the important turnover ratios usually calculated by a concern.

1. Sales to Capital Employed or Capital Turnover Ratio.
 This ratio shows the efficiency of capital employed in the business by computing how many times capital employed is turned-over in a stated period. The ratio is ascertained as follows :

$$\frac{\text{Sales}}{\text{Capital employed (i.e. Shareholders' Fund + Long-term Liabilities)}}$$

7. Creditors (or Accounts Payable) Turnover Ratio. This ratio gives the average credit period enjoyed from the creditors and is calculated as under :

$$\frac{\text{Average Credit Purchases}}{\text{Accounts Payable (Creditors + B/P)}}$$

For example, if credit purchases during 1984 are Rs. 2,00,000 and accounts payable on 1-1-84 and 31-12-84 are Rs. 46,000 and Rs. 34,000 respectively, then creditors turnover ratio will be 5 times [i.e. $Rs. 2,00,000 \div \frac{1}{2} (Rs. 46,000 + Rs. 34,000)$].

A high ratio indicates that creditors are not paid in time while a low ratio gives an idea that the business is not taking full advantages of credit period allowed by the creditors.

Sometimes it is also required to calculate the average payment period (or average of payables or debt period enjoyed) to indicate the speed with which payments for credit purchases are made to creditors. It is calculated as

$$\text{Average Age of Payables} = \frac{\text{Months (or days) in a year}}{\text{Creditors' Turnover Ratio}}$$

Continuing the example already given, the average period of payables will be 73 days (i.e. 365 days $\div 5$).

Illustration 2. The following are the summarised Profit and Loss Account of Hind Products Limited for the year ending 31 December, 1988 and the Balance Sheet as on that date.

PROFIT AND LOSS ACCOUNT

	Rs.		Rs.
To Opening Stock	99,500	By Sales	8,50,000
To Purchases (credit)	5,45,250	By Closing Stock	1,49,000
To Incidental Expenses	14,250		
To Gross Profit	<u>3,40,000</u>		
	9,99,000		9,99,000
	<u> </u>		<u> </u>
To Operating Expenses :			
Selling and Distribution		By Gross Profit	3,40,000
45,000		By Non-operating Income :	
Administration 1,500,00		Interest	3,000
	<u>1,95,000</u>	Profit on Sale of Shares	6,000
	<u> </u>		<u> </u>
To Non-Operating Expenses :			
Loss on Sale of Assets	4,000		9,000
To Net Profit	<u>1,50,000</u>		<u>3,49,000</u>
	<u> </u>		<u> </u>

(v) Return on Capital Employed

$$= \frac{\text{Net Profit}}{\text{Capital Employed}} \times 100$$

$$= \frac{1,50,000}{3,50,000} \times 100 = 42.86\%$$

(vi) Net Profit to Fixed Assets

$$= \frac{\text{Net Profit}}{\text{Fixed Assets}} \times 100$$

$$= \frac{1,50,000}{2,30,000} \times 100 = 65.22\%$$

(vii) Stock Turnover Ratio

$$= \frac{\text{Cost of goods sold}}{\text{Average Inventory}}$$

$$= \frac{\text{Sales} - \text{Gross Profit}}{(\text{Opening Stock} + \text{Closing Stock}) / 2}$$

$$= \frac{8,50,000 - 3,40,000}{99,500 + 1,49,000} / 2 = \frac{5,10,000}{1,24,250}$$

$$= 4.1 \text{ Times}$$

(viii) Receivable Turnover Ratio

$$= \frac{\text{Net Credit Sales}}{\text{Average Receivables}}$$

$$= \frac{8,50,000}{85,000} = 10 \text{ times}$$

(ix) Creditors Turnover Ratio

$$= \frac{\text{Credit Purchases}}{\text{Average Accounts Payable}}$$

$$= \frac{5,45,250}{80,000} = 6.8 \text{ times}$$

(x) Sales to Working Capital

$$= \frac{\text{Sales}}{\text{Working Capital}}$$

$$= \frac{8,50,000}{1,20,000} = 7.08 : 1$$

4. **Ratio of Inventory to Working Capital.** In order to ascertain that there is no overstocking, the ratio of inventory to working capital should be calculated. It is worked out as follows :

$$\frac{\text{Inventory}}{\text{Working Capital}}$$

Working Capital is the excess of current assets over current liabilities. Increase in volume of sales requires increase in size of inventory, but from a sound financial point of view, inventory should not exceed amount of working capital. The desirable ratio is 1 : 1.

5. **Fixed Assets Ratio.** This ratio is calculated as under :

$$\frac{\text{Fixed Assets}}{\text{Capital employed}}$$

This ratio gives an idea as to what part of the capital employed has been used in purchasing the fixed assets for the concern. If the ratio is less than one, it is good for the concern.

6. **Ratio of Current Assets to Fixed Assets.** This ratio is worked out as :

$$\frac{\text{Current Assets}}{\text{Fixed Assets}}$$

This ratio will differ from industry to industry and, therefore, no standard can be laid down. A decrease in the ratio may mean that trading is slack or more mechanisation has been put through. An increase in the ratio may reveal that inventories and debtors have unduly increased or fixed assets have been intensively used. An increase in the ratio, accompanied by increase in profit, indicates that business is expanding.

7. **Debt to Equity Ratio.** This ratio is calculated to measure the relative proportions of outsiders' funds and shareholders' funds invested in the company. This ratio is also known as external/internal equity ratio and is calculated as follows :

(a) **Debt to Equity Ratio**

$$= \frac{\text{Long Term Debts}}{\text{Shareholders' Funds}}$$

Or

(b) **Debt to Equity Ratio**

$$= \frac{\text{Long Term Debts}}{\text{Shareholders' Funds} + \text{Long Term Debts}}$$

Shareholders' funds consist of preference share capital, equity share capital, capital reserves, revenue reserves and reserves reported.

Analysis

to ascertain working

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Ratio Analysis

senting marked surplus, like reserves for contingencies, sinking funds for renewal of fixed assets or redemption of debentures, etc. less fictitious assets.

Whether a given debt to equity ratio shows a favourable or unfavourable financial position of the concern depends on the industry and the pattern of earning. A low ratio is generally viewed as favourable from long-term creditors' point of view, because a large margin of protection provides safety for the creditors. The same low ratio may be taken as quite unsatisfactory by the shareholders because they find neglected opportunity for using low-cost outsiders' funds to acquire fixed assets that could earn a high return. Keeping in view the interest of both (shareholders and long-term creditors), debt to equity ratio of 2 : 1 in case of (a) and 2 : 3 in case of (b) is acceptable.

8. Proprietary Ratio. A variant of debt to equity ratio is the proprietary ratio which shows the relationship between shareholders' funds and total assets. This ratio is worked out as follows :

$$\frac{\text{Shareholders' Funds}}{\text{Total Assets}}$$

This ratio should be 1 : 3 i.e., one-third of the assets minus current liabilities should be acquired by shareholders' funds and the other two-thirds of the assets should be financed by outsiders' funds.

9. Capital Gearing Ratio. This ratio establishes the relationship between the fixed interest-bearing securities and equity shares of a company. It is calculated as follows :

$$\frac{\text{Fixed Interest-bearing Securities}}{\text{Equity Share Capital}}$$

Fixed interest-bearing securities carry with them the fixed rate of dividend or interest and include preference share capital and debentures. A company is said to be highly geared if the lion's share of the total capital is in the form of fixed interest-bearing securities or this ratio is more than one. This ratio must be carefully planned as it affects the company's capacity to maintain a uniform dividend policy during difficult trading periods that may occur. Too much capital should not be raised by way of debentures, because debentures do not share in business losses.

Illustration 3. From the following balance sheet of Rim Zim Ltd. as on 31st March, 19X3, calculate (i) Current Ratio, (ii) Quick Ratio, (iii) Absolute Liquidity Ratio, (iv) Ratio of Working Capital, (v) Ratio of Current Assets to Fixed Assets, (vi) Debt to Equity Ratio, (vii) Proprietary Ratio, (viii) Capital Gearing, Ratio and (ix) Fixed Asset Ratio.

BALANCE SHEET

<i>Liabilities</i>	Rs.	<i>Assets</i>	Rs.	(vi) D
Equity Share Capital	10,00,000	Goodwill (At cost)	5,00,000	
6% Preference Share Capital	5,00,000	Plant & Machinery	6,00,000	
General Reserve	1,00,000	Land & Buildings	7,00,000	
Profit and Loss A/c	4,00,000	Furniture & Fixtures	1,00,000	
Provision for Tax	1,76,000	Stock-in-Trade	6,00,000	
Bills Payable	1,24,000	Bills Receivable	30,000	
Bank Overdraft	20,000	Debtors	1,50,000	
Creditors	80,000	Bank	2,00,000	
12% Debentures	5,00,000	Marketable Securities	20,000	
	29,00,000		29,00,000	
	<u><u> </u></u>		<u><u> </u></u>	(vii)

Solution

$$(i) \text{ Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$= \frac{\text{Rs. } 10,00,000}{\text{Rs. } 4,00,000} = 2.5 : 1 \quad (\text{viii})$$

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

$$= \frac{\text{Rs. } 4,00,000}{\text{Rs. } 4,00,000} = 1 : 1 \quad (\text{ix})$$

(iii) Absolute Liquidity Ratio

$$= \frac{\text{Cash at Bank} + \text{Marketable Securities}}{\text{Current Liabilities}}$$

$$= \frac{2,20,000}{4,00,000} = .55 : 1$$

(iv) Inventory to Working Capital Ratio

$$= \frac{\text{Inventory}}{\text{Working Capital}}$$

$$= \frac{6,00,000}{6,00,000} = 1 : 1$$

(v) Current Assets to Fixed Assets,

$$= \frac{\text{Current Assets}}{\text{Fixed Assets}}$$

changed (e) Increase (f) Unchanged.

24. The current ratio of a company is 2 : 1. Which of the following suggestions would improve the ratio, which would reduce it and which would not change it :
- To pay a current liability.
 - To sell a motor car for cash at a slight loss.
 - To borrow money for a short time on an interest bearing promissory note.
 - To purchase stock for cash.
 - To give an interest bearing promissory note to a creditor to whom money was owed.
 - To discount on accounts receivable.
- Ans.** [(a) and (b) Improve, (c) and (f) Reduce, (d) and (e) No change]

EXERCISE

Recd
1. Alpha Manufacturing Co. has drawn up the following Profit and Loss Account for the year ended 31st March, 19X5:

	R s.	R s.
To Opening Stock	26,000	By Sales
To Purchases	80,000	By Closing Stock
To Wages	24,000	38,000
To Manufacturing Expenses	16,000	
To Gross Profit c/d	52,000	
	<hr/>	<hr/>
	1,98,000	1,98,000
To Selling & Dist. Expenses	4,000	By Gross Profit b/d
To Administrative Expenses	22,800	By Compensation for acquisition of land
To General Expenses	1,200	4,800
To Value of furniture lost by fire	800	
To Net Profit	28,000	
	<hr/>	<hr/>
	56,800	56,800
	<hr/>	<hr/>

You are required to find out : (i) Gross Profit Ratio. (ii) Net Profit Ratio, (iii) Operating Ratio and (iv) Operating Profit Ratio.

[Ans. (i) 32.5% (ii) 17.5% (iii) 85% (iv) 15%].

2. Calcutta Mills present you with following information. Calculate Rate of return on owner's net capital :

You are required to state the following :

- (i) The dividend yield on the equity shares.
 - (ii) The cover for the preference and equity dividend.
 - (iii) The earnings yield (iv) The P/E ratio.
- Ans. [(i) 10%, (ii) 24.44 times, 2.6375 times, (iii) 26.375%]
 (iv) 3.79]

5. The following are summarised Profit and Loss A/c for the year ending 31-12-19X4 and the Balance Sheet as at that date:

TRADING AND PROFIT & LOSS ACCOUNT

	Rs.		Rs.
To Opening Stock	10,000	By Sales	1,00,000
To Purchases	55,000	By Closing Stock	15,000
To Gross Profit	50,000		1,15,000
	<hr/>		<hr/>
	1,15,000		1,15,000
To Administrative Expenses	15,000	By Gross Profit	50,000
To Interest	3,000		50,000
To Selling Expenses	12,000		50,000
To Net Profit	20,000		50,000
	<hr/>		<hr/>
	50,000		50,000
	<hr/>		<hr/>

BALANCE SHEET

	Rs.		Rs.
Capital	1,00,000	Land and Building	50,000
Profit & Loss A/c	20,000	Plant and Machinery	30,000
Creditors	25,000	Stock	15,000
Bills payable	15,000	Sundry Debtors	15,000
	<hr/>	Bills Receivable	12,500
	<hr/>	Cash in Hand and at Bank	17,500
	<hr/>	Furniture	20,000
	<hr/>		1,60,000
	<hr/>		1,60,000

Additional Information :

1. Average Debtors Rs. 12,500.
2. Average Credit Purchases 40,000 .

You are required to state the following :

- (i) The dividend yield on the equity shares.
- (ii) The cover for the preference and equity dividend.
- (iii) The earnings yield (iv) The P/E ratio.

Ans. [(i) 10%, (ii) 24.44 times, 2.6375 times, (iii) 26.375% (iv) 3.79]

5. The following are summarised Profit and Loss A/c for the year ending 31-12-19X4 and the Balance Sheet as at that date:

TRADING AND PROFIT & LOSS ACCOUNT

	Rs.		
To Opening Stock	10,000	By Sales	
To Purchases	55,000	By Closing Stock	Rs. 1,00,000
To Gross Profit	50,000		15,000
	<hr/>		<hr/>
	1,15,000		1,15,000
To Administrative Expenses	15,000	By Gross Profit	
To Interest	3,000		50,000
To Selling Expenses	12,000		
To Net Profit	20,000		
	<hr/>		<hr/>
	50,000		50,000
	<hr/>		<hr/>

BALANCE SHEET

	Rs.		Rs.
Capital	1,00,000	Land and Building	50,000
Profit & Loss A/c	20,000	Plant and Machinery	30,000
Creditors	25,000	Stock	15,000
Bills payable	15,000	Sundry Debtors	15,000
	<hr/>	Bills Receivable	12,500
	<hr/>	Cash in Hand and at Bank	17,500
	<hr/>	Furniture	20,000
	<hr/>		1,60,000
	<hr/>		<hr/>

Additional Information :

1. Average Debtors Rs. 12,500.
2. Average Credit Purchases 40,000.

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
- * $r + (\text{sum } pvc_i - \text{sum } pvc_0 / \text{diff sum } pvc_i) * k$
 - * $r - (\text{sum } pvc_i - \text{sum } pvc_0 / \text{diff sum } pvc_i) * k$
 - * $r + (\text{sum } pvc_i - \text{sum } pvc_0 / \text{diff sum } pvc_i) * k$
 - * $r - (\text{sum } pvc_0 - \text{sum } pvc_i / \text{diff sum } pvc_i) * r$

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



VASAVI COLLEGE OF ENGINEERING, (AUTONOMOUS) HYDERABAD-500031
BE. VII-Semester (2023-24) - II-Internal Examinations
ECONOMICS AND FINANCE FOR ENGINEERS- U20HS040EH
(Common for Mechanical & Civil)

Max. Marks: 30

Time: 1½ Hours

Q. No.	Description of the Question	M	BTL	Mapped																					
		CO	PO																						
PART – A (6 x 1 = 6 Marks) Answer ALL questions																									
1.	Draw the format of Journal	1	1	3	09																				
2.	What is the purpose of preparing Trial Balance?	1	1	3	09																				
3.	Give a brief note on Acid Test Ratio (Quick Ratio)	1	1	4	04																				
4.	Write a brief note on Debt-Equity ratio	1	1	4	04																				
5.	List out Capital Budgeting techniques	1	1	5	11																				
6.	How do you calculate Present value Factor? Give example	1	1	5	11																				
PART – B (3 x 4 marks= 12 Marks)																									
7.	Draw the format of Trading and Profit and Loss Account	4	3	3	11																				
8.	Explain the importance of ratio analysis	4	2	4	04																				
9.	The cost of a machine is Rs. 20,000/- and the net cash flows after tax(CFAT) as follows: Cost of Capital is 10% <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Year</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>CFAT(Rs)</td> <td>8000</td> <td>12000</td> <td>9000</td> <td>7000</td> <td>6000</td> </tr> </table> Suggest whether to buy or not, using Net Present Value Method	Year	1	2	3	4	5	CFAT(Rs)	8000	12000	9000	7000	6000	4	4	5	11								
Year	1	2	3	4	5																				
CFAT(Rs)	8000	12000	9000	7000	6000																				
PART – C (3x 4marks = 12 Marks)																									
10	Draw the format of Balance sheet	4	4	3	11																				
	From the following information calculate: 1) Current ratio 2) Debtors Turnover Ratio 3)Debt Equity Ratio 4)Return on Capital Employed Ratio	4	4	4	4																				
11.	<table border="1"> <thead> <tr> <th>Particulars</th> <th>Amount (Rs)</th> </tr> </thead> <tbody> <tr> <td>Average Capital Employed</td> <td>1,50,000</td> </tr> <tr> <td>Closing Stock</td> <td>30,000</td> </tr> <tr> <td>Sundry Debtors</td> <td>60,000</td> </tr> <tr> <td>Sundry Creditors</td> <td>18,000</td> </tr> <tr> <td>Bank Overdraft</td> <td>12,000</td> </tr> <tr> <td>Net Credit Sales</td> <td>2,40,000</td> </tr> <tr> <td>Net Profit after Tax</td> <td>75,000</td> </tr> <tr> <td>Share holders' funds</td> <td>5,00,000</td> </tr> <tr> <td>Long Term Debt</td> <td>2,50,000</td> </tr> </tbody> </table>	Particulars	Amount (Rs)	Average Capital Employed	1,50,000	Closing Stock	30,000	Sundry Debtors	60,000	Sundry Creditors	18,000	Bank Overdraft	12,000	Net Credit Sales	2,40,000	Net Profit after Tax	75,000	Share holders' funds	5,00,000	Long Term Debt	2,50,000	4	4	4	4
Particulars	Amount (Rs)																								
Average Capital Employed	1,50,000																								
Closing Stock	30,000																								
Sundry Debtors	60,000																								
Sundry Creditors	18,000																								
Bank Overdraft	12,000																								
Net Credit Sales	2,40,000																								
Net Profit after Tax	75,000																								
Share holders' funds	5,00,000																								
Long Term Debt	2,50,000																								
12.	The management of a company wants to choose a machine having a lower payback period, out of two each costing Rs.5, 00,000 and having a life period of 5 years. <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Year</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>CFAT for X</td> <td>1,50,000</td> <td>2,00,000</td> <td>2,50,000</td> <td>1,50,000</td> <td>1,00,000</td> </tr> <tr> <td>CFAT for Y</td> <td>50,000</td> <td>1,50,000</td> <td>2,00,000</td> <td>3,00,000</td> <td>2,00,000</td> </tr> </table> Give your advice	Year	1	2	3	4	5	CFAT for X	1,50,000	2,00,000	2,50,000	1,50,000	1,00,000	CFAT for Y	50,000	1,50,000	2,00,000	3,00,000	2,00,000	4	4	4	4		
Year	1	2	3	4	5																				
CFAT for X	1,50,000	2,00,000	2,50,000	1,50,000	1,00,000																				
CFAT for Y	50,000	1,50,000	2,00,000	3,00,000	2,00,000																				

Summary of the percentage for each of the criteria (Blooms Taxonomy Level) from the questions framed.

1. Fundamental knowledge from level-1 (Recall) & 2 (understand): 58%
2. Knowledge on application from level-3 (Apply) & 4 (Analyse) : 42%
3. Critical thinking and ability to design from level-5 (Estimate) & 6 (Create or Design): 0%

- * 3.42 years
 - * 3.33 years
 - * 4 years
 - * 2.67 years
6. Cash outlay Rs.60000, salvage value Rs.10000, additional stocks maintained Rs.2000, cost of capital 8%, the returns before deducting depreciation but after deducting tax for four years are Rs.25000, 30000, 32000 and 34000. IRR rates as per annuity table are
- * 35 and 36%
 - * 34 and 35%
 - * 36 and 37%
 - * 25 and 26%
7. Initial investment Rs.75000, salvage value Rs.15000, cost of capital 12%, the returns after deducting depreciation and tax for three years are Rs.13000, 18000, 21000. The PBP is
- * Rs.2.09
 - * 2.09 years
 - * can't determine
 - * 3.09 years
8. Initial investment Rs.70000, salvage value Rs.10000, cost of capital 10%, the returns before deducting depreciation and after tax for three years are Rs.33000, 38000, 51000. Additional working capital is Rs.2500. The ARR is
- * 48.62 times
 - * 48.62 %
 - * 95.86%
 - * 25.23%
9. Initial investment Rs.110000, salvage value Rs.10000, cost of capital 10%, the returns after deducting depreciation and before tax for five years are Rs.30000, 40000, 50000, 60000 and 70000. Additional working capital is Rs.2500. The PI is
- * 1.39
 - * 1.52
 - * Rs.1.58
 - * 1.45
10. Initial investment Rs.110000, salvage value Rs.10000, cost of capital 10%, the returns before deducting depreciation and after tax for three years are Rs.30000, 40000, and 50000. The NPV is
- * Rs.-4370
 - * -Rs.14630
 - * Rs.22140
 - * -Rs.32140

VASAVI COLLEGE OF ENGINEERING, IBRAHIMBAGH
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

QUIZ III

NAME: Ashweth Rabbay, 7

HALL TICKET NO. 1602-20-416-061

SECTION: B

BRANCH: Mechanical

(2½)

1. Cash outlay Rs.75000, salvage value Rs.15000, additional stocks maintained Rs.2000, cost of capital 8%, the returns before deducting either depreciation or tax each year is Rs.25000. The estimated life is 3 years. ARR is
- * Rs.5.32
 - 8.33%
 - * 5.32%
 - * 5.55%
2. Cash outlay Rs.75000, salvage value Rs.15000, additional stocks maintained Rs.2000, cost of capital 8%, the returns before deducting either depreciation or tax each year is Rs.25000. The estimated life is 3 years. NPV is Rs
- * 5519.5
 - 5519.5
 - * -5519.5
 - * -7519.5
3. Cash outlay Rs.75000, salvage value Rs.15000, additional stocks maintained Rs.2000, cost of capital 8%, the returns before deducting either depreciation or tax each year is Rs.25000. 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 before deducting either depreciation or tax each year is Rs.25000. The estimated life is 3 years. PI is
- * 1.245
 - * 0.635
 - * 0.928
 - 1.077
5. Cash outlay Rs.75000, salvage value Rs.15000, additional stocks maintained Rs.2000, cost of capital 8%, the returns before deducting either depreciation or tax each year is Rs.25000. The estimated life is 3 years. The PBP without considering salvage value is

$\text{APP} = \frac{\text{Average annual net profit after taxes}}{\text{Average annual net profit before taxes}}$

Average Investment

$\frac{1}{2}$ (initial investment - salvage value) + salvage value
working capital

$$\Rightarrow \frac{1}{2} (3,30,000 - 30,000) +$$

⇒ 1,80,000

$$FIRR = \frac{50,000}{1,80,000} = 0.277 \\ \Rightarrow 27.7\%$$

FAR is greater than cost of capital accept the proposal.

$\Sigma \text{PVCT} =$

$$\begin{array}{r} \text{₹ 92600 + ₹ 28560 +} \\ \text{₹ 158800 + ₹ 3820} \\ = \text{₹ 403770} \end{array}$$

$$\sum PVCO = 3.30$$

$$NPV = \sum PVCI - \sum PVCO$$

= 73770

AS, $NPV > 0$ Accept the project

$$\rightarrow PI = \frac{\sum PV CI}{\sum PV CO}$$

$$= \frac{403770}{330000} \Rightarrow 1.22$$

* A company proposes to invest ₹ 30,000 in machine which is expected to work for 3 years and fetch a amount ₹ 30,000/- after the life. The estimated "depreciation" before and tax each year is as follows. cost of capital (8%)

y	CFBT	dep	NPBT
1	1,00,000	1,00,000	0
2	2,00,000	1,00,000	
3	3,00,000	1,00,000	

calculate PBP, RR, NPV, PI, IRR

$$\text{Salvage value} = 30,000$$

$$\begin{aligned}\text{depreciation} &= \frac{\text{cost of the asset} - \text{salvage value}}{\text{estimated life span}} \\ &= \frac{3,00,000}{3} \\ &= 1,00,000.\end{aligned}$$

$$\rightarrow \text{PBP} = 1 \rightarrow 2,00,000$$

$$\approx \rightarrow 80,000$$

$$\approx = \frac{80000}{200000} \Rightarrow 0.4$$

$$\text{PBP} = 2.4 \text{ years}.$$

If 2.4 yrs is < predetermined PBP Accept the proposal else reject the project

Dr. Prashanta Athma, Senior Professor of Commerce (Retd.)
Former Dean, Faculty of Commerce, Osmania University, Hyd.

Illustration 6

A firm has profit before interest and taxes of Rs. 3,20,000; interest charges of Rs. 16,000; taxes of Rs. 60,000; total assets of Rs. 10,00,000 and total liabilities of Rs. 6,00,000. What is its (a) Return on Equity and (b) Interest Coverage?

Illustration 7

Calculate Stock Turnover Ratio from the following information.

Opening Stock Rs. 29,000; Closing Stock Rs. 31,000; Sales Rs. 3,20,000; Gross Profit 25%

Illustration 8

A firm has a cost of goods sold of Rs. 8,00,000; sales of Rs. 10,00,000 and an asset turnover of 4. What is the rate of return on asset?

Illustration 9

From the following particulars, you are required to calculate:

- (a) Debtors Turnover and
- (b) Average Collection period

	March 31, 2021	March 31, 2022
	Rs.	Rs.
Net Sales	8,00,000	7,50,000
Debtors at the beginning of the financial year	1,66,000	1,60,000
Debtors at the end of the financial year	2,94,000	1,72,000

Illustration 10

Net Sales Rs. 5,00,000

Debtors Rs. 1,20,000

Bills Receivables Rs. 40,000

Calculate Debtors Turnover

Illustration 1

Particulars	Alpha Company	Beta Company
Common Stock (1)	\$550000	\$500000
Preferred Stock (2)	\$150000	\$200000
Retained Earnings (3)	\$800000	\$700000
Total Equity (1+2+3)	\$1500000	\$1400000
Current Assets (A)	\$1500000	\$1700000
Long Term Assets/ Non Current Assets (B)	\$1500000	\$1200000
Total Assets (A+B)	\$3000000	\$2900000
Short Term Debt (C)	\$600000	\$1000000
Long Term Debt (D)	\$900000	\$500000
Total Debt (C+D)	\$1500000	\$1500000

Calculate Solvency Ratios

Illustration 2

The working capital of AB Ltd. has deteriorated in the recent year and now stands as under:

Current Liabilities	Rs.	Current Assets	Rs.
Creditors	2, 45,000	Inventory	2, 80,000
Bank Loan	1, 05,000	Debtors	1, 75,000
		Cash	35,000
	3,50,000		4,90,000

Calculate Current Ratio

Illustration 3

Calculate Current Ratio and Quick Ratio from the following information:

Ratio Analysis

Types of Solvency Ratios

- ✓ Interest Coverage Ratio = EBIT / Interest Expenses
- ✓ Debt-to-Assets Ratio = Debt / Assets
- ✓ Proprietary / Equity Ratio = TSE / Total Assets
- ✓ Debt-to-Equity (D/E) Ratio = Debt / Outstanding Equity
- ✓ Financial Leverage Ratio = Total Assets/ Total Equity

Types of Liquidity Ratios

- ✓ Current Ratio = Current Assets/Current Liabilities
- ✓ Quick Ratio = Quick Assets/ Current Liabilities or Quick Assets/Quick Liabilities

Types of Profitability Ratios

- A) Operating Ratio = [(Cost of goods sold + Other Operating Expenses) / Net Sales] x 100
- B) Operating Profit Ratio = (Operating Profit / Net Sales) x 100
- C) Gross Profit Margin = (Gross Profit / Net Sales) x 100
- D) Net Profit Margin = (Net Profit after Taxes / Net Sales) x 100
- E) Interest Coverage Ratio = (Earnings before Interest and Taxes / Interest charges)
- F) Return on Investment

i) **Return on Assets** = $\frac{\text{Net Profit after Taxes}}{\text{Total Assets}} \times 100$

ii) **Return on Capital Employed** = $\frac{\text{Net Profit after Taxes}}{\text{Capital Employed}} \times 100$

iii) **Return on Shareholders' Equity** = $\frac{\text{Net Profit after Taxes}}{\text{Shareholders Equity}} \times 100$

Types of Turnover Ratios / Activity Ratios

- a) Inventory / Stock Turnover Ratio = Cost of goods sold or Net Sales / Avg. or C/S
- b) Debtors Turnover Ratio and Collection Period
Debtors Turnover Ratio = Credit Sales / Average Debtors or Closing Debtors
Average Collection Period = Days or weeks or months in a year / Debtors Turnover Ratio
- c) Fixed Assets Turnover Ratio = Cost of Goods Sold or Net Sales / Net Fixed Assets
- d) Total Assets Turnover = Cost of Goods Sold or Net Sales / Total Assets
- e) Capital Employed Turnover = Net Sales / Capital Employed

Particulars	Mar-2022 Rs.
Non-Current Liabilities	
(a) Debentures	
Current Liabilities	75,000
(a) Tax unpaid	
(b) Trade Creditors	9,000
(c) Bills Payable	10,000
(d) Outstanding Expenses	7,500
Assets	16,000
Non-current Assets	
(a) Goodwill	50,000
(b) Land and Building	1,00,000
Current Assets	
(a) Cash	10,000
(b) Trade Debtors	35,000
(c) Bills Receivable	15,000
(d) Closing Stock	30,000
(e) Prepaid Expenses	5,000

Illustration 4

Calculate Liquid Ratio from the following information.

	Rs.
Current Liabilities:	
Trade Creditors	2,50,000
Bills Payable	1,00,000
Outstanding Expenses	50,000
Current Assets:	
Cash	50,000
Debtors	2,00,000
Inventory	3,00,000

Illustration 5

From the following information, calculate Operating Ratio and Operating Profit Ratio.

Cost of Goods Sold	Rs. 5,20,000
Operating Expenses	Rs. 1,80,000
Net Sales	Rs. 8,00,000

- (c) Real, Nominal & Personal accounts
- (d) Journal ledger & Personal accounts

(11)

(c) Real, Nominal, & personal accounts
• ledger & personal accounts

(c) Gains are personal accounts

(d) Assets are nominal accounts

(e) Personal account rules are

(a) Debit the giver, credit the receiver

(b) Debit the receiver, credit the giver

(c) Debit what comes in, credit what goes out

(d) Debit all expenses & losses, credit all incomes & gains

(f) Real account involves

(a) Persons

(b) Liabilities

(c) assets

(d) expenses & incomes

(g) Personal account includes

(a) ^{Natural} ~~Real~~ persons

(b) artificial persons

(c) Real & artificial persons

(d) ~~Neither~~ ~~real~~ only Natural persons

(h) Nominal accounts include

(a) ~~Person~~ expenses & losses

(b) assets, incomes & gains

(c) ~~liabilities~~ expenses & incomes

(d) expenses, losses, incomes & gains

(i) The three accounts involved in alementing process
are

(a) Real, artificial & personal accounts

(b) Personal, nominal & New accounts

- (c) Real, Nominal & personal accounts
(d) Journal ledger & personal accounts

11

Unit - III

- ① Accounting is a _____ of business
- (a) Activity
 - (b) process
 - (c) language
 - (d) Performance
- ② Account How many types of accounts are there?
- (a) one
 - (b) Two
 - (c) Three
 - (d) Four
- ③ Debit all expenses & losses & credit all incomes
or gains are the rules for
- (a) Personal account
 - (b) Real account
 - (c) Nominal account
 - (d) account
- ④ Which of the following statement is not true
- (a) Debit all incomes & gains
 - (b) Debit what receive
 - (c) Credit ~~the~~ ~~expenses~~ what goes out
 - (d) Debit what comes in
- ⑤ Which of the following statement is true
- (a) Expenses are nominal accounts
 - (b) Persons are Real accounts

Ratio (1)

- ① Ratio is the _____ relationship between two values
- (a) numerical
 - (b) arithmetical
 - (c) numerical & arithmetical
 - (d) numerical or arithmetical
- ② Ratios can be expressed as
- (a) pure ratio
 - (b) rate
 - (c) Percentage
 - (d) all of the above
- ③ Ratio is a sub-type of _____ analysis
- (a) financial
 - (b) work
 - (c) stock
 - (d) None of the above

(4)

7 _____ is done in ~~trial~~ trial balance

- (a) summarizing
- (b) recording
- (c) Analyzing
- (d) classifying.

8 Trial balance is a _____ statement

- (a) ~~summarizing~~ recording
- (b) Analysis
- (c) Proof
- (d) Point

9 Trial balance is an _____ of _____ balances

- (a) summary, Trial
- (b) extract, ledger
- (c) extract, Trial
- (d) extract, Journal

10 Trial balance should ~~be~~ always

- (a) be made to agree
- (b) will agree
- (c) will disagree
- (d) be made to disagree

11 The agreement of trial balance indicates _____ of maintenance of books of account

- (a) absolute accuracy
- (b) reasonable degree of accuracy
- (c) wrong entry of transaction
- (d) None of the above.

(3)

① Journal is a book of — entry

- (a) Primary
- (b) Original
- (c) a & b
- (d) None

② Journal is a — statement

- (a) General
- (b) Journal
- (c) Period
- (d) Point

③ Journal is used to — the transactions

- (a) Post
- (b) record
- (c) summarize
- (d) Analyse

④ Ledger is used for —

- (a) recording
- (b) classifying
- (c) summarizing
- (d) analysing

⑤ Ledger is a — statement

- (a) Period
- (b) point
- (c) ~~Ledger book~~ a & b
- (d) Neither a nor b

⑥ Process of transferring the transactions from Journal to
Ledger is known as

- (a) recording
- (b) posting
- (c) summarizing
- (d) analysis

⑦ Indirect expenses

(2)

- (a) Trial Balance
- (b) Profit & Loss ac/c
- (c) Trading ac/c
- (d) Balance sheet

(2-2)

⑧

Balance sheet

- (a) Profitability
- (b) financial
- (c) activity
- (d) liquidity

Position

⑨

Capital items appear in

- (a) Trading ac/c
- (b) Profit & loss ac/c
- (c) Balance sheet
- (d) Funds flow statement

⑩

Revenue items appear in

- (a) only trading account
- (b) only profit & loss account
- (c) Trading & profit & loss ac/c
- (d) Balance sheet

- (2) Trading Profit & Loss Ac & Balance Sheet
- ① Identify the nature of Trading & profit & loss
- (a) Nominal
 - (b) Real
 - (c) Personal
 - (d) Journal
- ② Gross profit is found in
- (a) Trading Ac
 - (b) Profit & loss Ac
 - (c) Balance sheet
 - (d) Journal
- ③ Profit & loss provides information about
- (a) Gross profit
 - (b) Net profit
 - (c) ~~Balance~~ Direct expenses
 - (d) Properties
- ④ Trading & profit & loss Ac is a — statement
- (a) General
 - (b) Period
 - (c) Point
 - (d) Special
- ⑤ Balance sheet is a — statement
- (a) Journal
 - (b) Ledger
 - (c) Period
 - (d) Point
- ⑥ ^{any} Direct expenses are shown in
- (a) Journal
 - (b) Ledger profit & loss Ac
 - (c) ~~Trading & profit & loss Ac~~ Trading Ac
 - (d) Balance sheet

BRANCH AND SECTION

(B)

1. Law of demand gives the [CO1,PO9,BTL1,2]
A) degree
~~B) direction~~
C) both
D) none
2. Break even sale in Rs. if variable cost per unit is Rs.20, sales revenue for 2000 units is Rs.100000, fixed cost is Rs.25000 [CO2,PO9,BTL1,2] (~~B~~ D)
A) 41667 units
~~B) 833 units~~
C) Rs.833
~~D) Rs.41667~~
3. Margin of safety of 1st year if sales in 1st year Rs.500000, 2nd year Rs.800000, total cost in 1st year is Rs.400000 and 2nd year Rs.600000 [CO2,PO9,BTL1,2] (~~A~~ D)
A) 66667
B) 200000
C) 33.33
D) 300000
4. Break even analysis do not assume that [CO2,PO9,BTL1,2] (~~E~~ A) C
A) Variable cost per unit remains same
B) Fixed cost per unit remains same
~~C) No stocks unsold~~
D) All costs can be classified into fixed and variable
5. Make or buy decision can be taken after _____ from the purchase price [CO2,PO9,BTL3] (~~E~~ A)
A) excluding variable cost
B) excluding fixed cost
~~C) including variable cost~~
D) including fixed cost

VASAVI COLLEGE OF ENGINEERING

DEPARTMENT OF H&SS

QUIZ 1

NAME OF THE CANDIDATE

HALL TICKET NO.

BRANCH AND SECTION

1. Law of demand gives the [CO1,PO9,BTL1,2] ()
A) degree
B) direction
C) both
D) none

2. Break even sale in Rs. if variable cost per unit is Rs.20, sales revenue for 2000 units is Rs.100000, fixed cost is Rs.25000 [CO2,PO9,BTL1,2] ()
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D) Rs.41667

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4. Break even analysis do not assume that [CO2,PO9,BTL1,2] ()
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5. Make or buy decision can be taken after _____ from the purchase price [CO2,PO9,BTL3] ()
A) excluding variable cost
B) excluding fixed cost
C) including variable cost
D) including fixed cost

After adding opening stock of work in progress, the value arrived at in the cost sheet
is [CO2,PO9,BTL1,2] (A)

- ✓ 6. A) factory cost
C B) prime cost
C C) office cost
C D) sales cost

7. Cost of sales minus factory cost is [CO2,PO9,BTL1,2] (A)

- C A) Prime cost
C B) Factory cost
C C) Cost of goods sold
C D) Cost of production

8. Non-responsiveness of demand for a given change in price is known as [CO2,PO9,BTL1,2] (B)

- C A) Perfectly elastic demand
C B) Perfectly inelastic demand
C C) Unitary elastic demand
C D) Relatively inelastic demand

9. Milk falls under which category of price elasticity factors? [CO2,PO9,BTL1,2] (A)

- C A) Basic needs
C B) Nature of the commodity
C C) Urgency of the commodity
C D) Availability of substitutes

10. Managerial economics apply [CO1,PO9,BTL1,2] (C)

- C A) natural theories
C B) abstract theories
C C) economic theories
C D) scientific theories

6. After adding opening stock of work in progress, the value arrived at in the cost sheet is [CO2,PO9,BTL1,2] ()
- Ⓐ A) factory cost
 - Ⓑ B) prime cost
 - Ⓒ C) office cost
 - Ⓓ D) sales cost
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- Ⓐ A) natural theories
 - Ⓑ B) abstract theories
 - Ⓒ C) economic theories
 - Ⓓ D) scientific theories

primarily related to the Economics of the Firm, differs from it in the following respects:

First, 'Economics of the Firm' deals with the theory of the firm, that is, a body of economic principles relating to the firm alone, whereas Managerial Economics deals with the *application* of the same principles to business.

Secondly, 'Economics of the Firm' is too simple in its assumptions whereas Managerial Economics has to reckon with actual business behaviour which is much more complex.

SCOPE OF MANAGERIAL ECONOMICS

As regards the scope of Managerial Economics, no uniform pattern has been followed by various authors. However, the following aspects (topics) may be said to generally fall under Managerial Economics:

1. Demand Analysis and Forecasting,
2. Cost Analysis,
3. Production and Supply Analysis,
4. Pricing Decisions, Policies and Practices,
5. Profit Management, and
6. Capital Management.

These aspects may also be called as the 'subject-matter' of Managerial Economics'.

In recent years, there is a trend towards integration of Managerial Economics and Operations Research. Hence, techniques such as Linear Programming, Inventory Models, Theory of Games, Decision Theory, etc., have also come to be regarded as part of Managerial Economics.¹

1. Demand Analysis and Forecasting

A business firm is an economic organism which transforms productive resources into goods that are to be sold in a market.² A major part of managerial

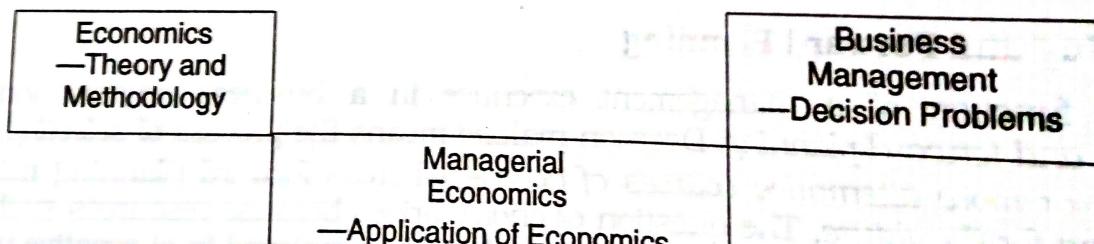
MANAGERIAL ECONOMICS

4

Definition

According to McNair and Meriam, Managerial Economics¹ consists of the use of economic modes of thought to analyse business situations.² Spencer and Siegelman have defined Managerial Economics as "the integration of economic theory with business practice for the purpose of facilitating decision-making and forward planning by management".³ We may, therefore, define Managerial Economics as the discipline which deals with the application of economic theory to business management. Managerial Economics thus lies on the borderline between economics and business management and serves as a bridge between the two disciplines. (See Chart 1)

Chart 1—Economics, Business Management and Managerial Economics



PRACTICAL PROBLEMS

1. From the following particulars prepare a Cost Sheet showing the total cost per tonne for the period ended 31st Dec., 1998.

	Rs.		Rs.
Raw Materials	33,000	Rent and taxes (office)	500
Productive wages	38,000	Water supply (works)	1,200
Unproductive wages	10,500	Factory Insurance	1,100
Factory rent and taxes	7,500	Office Insurance	500
Factory lighting	2,200	Legal expenses	400
Factory heating	1,500	Rent of warehouse	300
Motive power	4,400	Depreciation of	
Haulage (works)	3,000	—Plant and Machinery	2,000
Director's fees (works)	1,000	—Office Building	1,000
Director's fees (office)	2,000	—Delivery Vans	200
Factory cleaning	500	Bad Debts	100
Sundry office expenses	200	Advertising	300
Estimating Expenses (works)	800	Sales Department's salaries	1,500
Factory stationery	750	Upkeeping of delivery vans	700
Office stationery	900	Bank charges	50
Loose tools written off	600	Commission on Sales	1,500

The total output for the period has been 14,775 tonnes.

Ans. [Cost per tonne Rs. 8]

Hint : Prime cost Rs. 71,000; Factory cost Rs. 1,08,050; Cost of Production Rs. 1,13,600; Total Cost Rs. 1,18,200.

11. Following information has been obtained from the records of a manufacturing concern :

	1-1-1998 Rs.	31-12-1998 Rs.
Stock of Raw Materials	30,000	35,000
Work-in-Progress	15,000	20,000
Stock of Finished Goods	43,700	54,000
	Rs.	Rs.
Indirect wages	9,720	Purchase of Raw Materials 1,20,000
Sales	3,25,000	Productive wages 90,000
Factory Rent & Rates	7,830	Plant repair 3,420
Office Salaries	15,030	Depreciation on Plant 8,360
General Expenses	13,500	Factory Lighting 7,380
Office Rent	2,000	Salesmen's Salaries 7,650
Rent of Show Room	1,200	

Prepare :

- (i) Cost Sheet showing cost of raw materials consumed, prime cost, factory cost, incurred and factory cost.
- (ii) Income statement in traditional form for the year showing gross profit and net profit.

Ans. [(i) Rs. 1,15,000 ; Rs. 2,05,000 ; Rs. 2,41,710 ; Rs. 2,36,710 ; (ii) Rs. 98,590 ;
Rs. 59,210].

6. A Company wants to give a quotation for the supply of 1,000 articles to a wholesale customer during the year 1998. The cost data for 1997 shows the following:
 Material Cost per unit Rs.50; Direct wages per unit: Rs.30; Direct expenses per unit: Rs.10
 During the year 1998, material cost per unit will increase by Rs.10 per unit and wages per unit by Rs.5 but direct expenses will remain constant. Allow factory overheads at 50% of direct wages and office expenses at Rs.7.50 per unit. If the company wants to earn a profit of 20% on total cost, what price should it quote per unit?
 (B.Com, Kakatiya)
 [Ans: Rs.156]

Problems on Preparation of Cost Sheet

1. The accounts of Ajamtha Company Ltd. for the year ended 31st December 1976 show the following:
 Stock of Raw materials 31-12-1976 Rs.62,800; Stock of materials 1-1-76 Rs.48,000; Materials purchased Rs.1,85,000; Travelling expenses Rs.2,100; Drawing office salaries Rs.6,500; Counting house salaries Rs.12,600; Advertisement expenses Rs.2,900; Carriage & Cartage outwards Rs.4,300; Carriage & Cartage inwards Rs.7,150; Bad debts written off Rs.6,500; Repair of plant, machinery and tools Rs.4,450; Rent, Rates, Taxes & Insurance (Factory) Rs.8,500; Rent, Rates, Taxes & Insurance (Office) Rs.2,100; Travellers' Salaries & Commission Rs.7,700; Productive Wages Rs.1,26,500; Depreciation written off on office furniture Rs.300; Directors Fees Rs.6,000; Gas and Water(Factory) Rs.1,200; Gas and Water(Office) Rs.400; Manager's Salary (3/4 Factory, 1/4 office) Rs.10,000; General expenses Rs.3,400; Depreciation of Plant and Machinery Rs.6,500; Sales Rs.4,61,100.
 Prepare a statement giving the following information (A) Materials consumed (B) Prime cost (C) Factory on cost & its percentage on wages (D) Factory cost (E) General on cost and its percentage on factory cost (F) Total cost and (G) Net Profit.
 (B.Com, Bombay, Delhi-adapted)
 [Ans. Net Profit Rs.72,400]

2. The following data have been extracted from the books of Sunshine Industries Ltd. for the year 1985.
 Opening Stock of Raw-Materials Rs.25,000; Purchase of Raw Materials Rs.85,000; Closing Stock of Raw-Materials Rs.40,000; Carriage Inwards Rs.5,000; Wages Direct Rs.75,000; Indirect Wages Rs.10,000; Other Direct Charges Rs.15,000; Rent and Rates-Factory Rs.5,000; Rent and Rates-Office Rs.500; Indirect consumption of Material Rs.500; Other Factory Expenses Rs.5,700; Advance Income-tax paid Rs.15,000
 Depreciation: Plant & Machinery Rs.1,500; Office Furniture Rs.100
 Salary: Office Rs.2,500; Salesman Rs.2,000

Office Expenses Rs.900; Manager's Remuneration Rs.12,000; Bad debts written off Rs.1,000; Advertising expenses Rs.2,000; Travelling expenses of Salesmen Rs.1,100; Carriage outwards 1,000; Sales 2,50,000. The manager has overall charge of the company and his remuneration is to be allocated at Rs.4,000 to the factory, Rs.2,000 to the office and Rs.6,000 to the selling operations. From the above particulars prepare a statement showing (A) Prime Cost (B) Factory Cost (C) Cost of Production (D) cost of sales and (E) Net Profit.
 (B.Com, SVU, Delhi, Andhra)
 [Ans. Net Profit: Rs.39,200]

Preparation of cost sheet with cost per unit
 The following is the costing information of production for the year ending 30th June, 1970.
 Purchase of raw materials Rs.1,32,000; Direct wages Rs.1,10,000; Rent, taxes & Works expenses Rs.44,000; Carriage inwards Rs.1,584
 Stock on 1st January 1970: Raw Materials Rs.22,000;
 Stock on 30th June 1970: Finished products (1,600 tons) Rs.17,600
 Raw materials Rs.24,464
 Finished products (3200 tons) Rs.35,200
 Work-in-progress: 1st January 1970 Rs.5,280; 30th June 1970 Rs.17,600
 Cost of factory supervision Rs.8,800; Sale of finished products Rs.3,30,000
 Advertising discount allowed and selling cost 80 paise per ton sold. 25,600 units of commodity were produced during the period.
 You are required to prepare cost-sheet and ascertain:
 (i) The cost of raw materials used. (ii) The cost of output for the period. (iii) The cost of turnover for the period (iv) The net profit for the period. (v) Net profit per ton of the commodity.
 (B.Com, Andhra, SVU, Bangalore, Nagpur)
 [Ans. Net Profit: Rs.46,800]

4. Prepare the Cost Sheet to show the total cost of production and cost per unit of goods manufactured by a company for the month of July 1978. Also find the cost of sales.
 Stock of Raw Materials as on 1-7-78. Rs.3,000; Raw materials purchased Rs.38,000. Stock of Raw Materials on 31-7-78. Rs.4,500; Manufacturing Wages Rs.7,000; Loss on sale of a part of plant Rs.300; Factory Rent and Rates Rs.3,000; Other rent Rs.500; General expenses Rs.400; Advertisement expenses to be charged fully Rs.600; Income-tax paid Rs.2,000; Depreciation on plant Rs.1,500.
 The number of units produced during July 1978 was 3,000. The stock of finished goods was 200 and 400 units on 1-7-78 and 31-7-78 respectively. The total cost of the units on hand on 1-7-78 was Rs.2,800. All these had been sold during the month.
 (B.Com, Nagarjuna, Pass Delhi) [Ans. Cost of sales : Rs.37,116]

Internships. The application must record the internship details like Number, Name of the Student, Title of Internship, Start Date (dd-mm-yy format), End Date (dd-mm-yy format), Month, The forms must also allow users to undergo internship. An approval online. Once the user completes the application, submit and reset this information page.

HOME PAGE

APPLY FOR