3 Financial Analysis and Planning

BASIC CONCEPTS AND FORMULAE

1. Financial Analysis and Planning	Financial Analysis and Planning is carried out for the purpose of obtaining material and relevant information necessary for ascertaining the financial strengths and weaknesses of an enterprise and is necessary to analyze the data depicted in the financial statements. The main tools are Ratio Analysis and Cash Flow and Funds Flow Analysis.
2. Ratio Analysis	Ratio analysis is based on the fact that a single accounting figure by itself may not communicate any meaningful information but when expressed as a relative to some other figure, it may definitely provide some significant information. Ratio analysis is comparison of different numbers from the balance sheet, income statement, and cash flow statement against the figures of previous years, other companies, the industry, or even the economy in general for the purpose of financial analysis.
3. Types of Ratios	The ratios can be classified into following four broad categories: **(a) Liquidity Ratios** Liquidity or short-term solvency means ability of the business to pay its short-term liabilities. • **Current Ratios:** The Current Ratio is one of the best known measures of financial strength. Current Assets / Current Liabilities • **Quick Ratios:** The Quick Ratio is sometimes called the "acid-test" ratio and is one of the best measures of liquidity. It is a more conservative measure than current ratio. Quick Assets/ Current Liabilities • **Cash Ratio/ Absolute Liquidity Ratio:** The cash ratio measures the absolute liquidity of the business. This ratio considers only the absolute liquidity available with the firm.

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

- **Basic Defense Interval:** This ratio helps in determining the number of days the company can cover its cash expenses without the aid of additional financing.

$$\text{Basic Defense Interval} = \frac{(\text{Cash} + \text{Receivables} + \text{Marketable Securities})}{(\text{Operating Expenses} + \text{Interest} + \text{Income Taxes})/365}$$

- **Net Working Capital Ratio:** It helps to determine a company's ability to weather financial crises over time.

  Net Working Capital Ratio = Current Assets - Current Liabilities (excluding short-term bank borrowing)

(b) Capital Structure/Leverage Ratios

The capital structure/leverage ratios may be defined as those financial ratios which measure the long term stability and structure of the firm.

(i) Capital Structure Ratios: These ratios provide an insight into the financing techniques used by a business and focus, as a consequence, on the long-term solvency position.

- **Equity Ratio:** This ratio indicates proportion of owners' fund to total fund invested in the business.

$$\text{Equity Ratio} = \frac{\text{Shareholders' Equity}}{\text{Total Capital Employed}}$$

- **Debt Ratio:** This ratio is used to analyse the long-term solvency of a firm.

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Capital Employed}}$$

- **Debt to Equity Ratio:** Debt equity ratio is the indicator of leverage.

$$\text{Debt to Equity Ratio} = \frac{\text{Debt} + \text{Preferred Long Term}}{\text{Shareholders' Equity}}$$

(ii) Coverage Ratios: The coverage ratios measure the firm's ability to service the fixed liabilities.

- **Debt Service Coverage Ratio**: Lenders are interested in debt service coverage to judge the firm's ability to pay off current interest and instalments.

$$\text{Debt Service Coverage Ratio} = \frac{\text{Earnings available for debt service}}{\text{Interest} + \text{Installments}}$$

- **Interest Coverage Ratio:** Also known as "times interest earned ratio" indicates the firm's ability to meet interest (and other fixed-charges) obligations.

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

- **Preference Dividend Coverage Ratio**: This ratio measures the ability of a firm to pay dividend on preference shares which carry a stated rate of return.

$$\text{Preference Dividend Coverage Ratio} = \frac{\text{EAT}}{\text{Preference dividend liability}}$$

- **Capital Gearing Ratio**: In addition to debt-equity ratio, sometimes capital gearing ratio is also calculated to show the proportion of fixed interest (dividend) bearing capital to funds belonging to equity shareholders.

$$\text{Capital Gearing Ratio} = \frac{(\text{Preference Share Capital} + \text{Debentures} + \text{Long Term Loan})}{(\text{Equity Share Capital} + \text{Reserves \& Surplus} - \text{Losses})}$$

(c) Activity Ratios

These ratios are employed to evaluate the efficiency with which the firm manages and utilises its assets.

(i) Capital Turnover Ratio

This ratio indicates the firm's ability of generating sales per rupee of long term investment.

$$\text{Capital Turnover Ratio} = \frac{\text{Sales}}{\text{Capital Employed}}$$

(ii) Fixed Assets Turnover Ratio

A high fixed assets turnover ratio indicates efficient utilisation of fixed assets in generating sales.

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Capital Assets}}$$

(iii) Working Capital Turnover

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

Working Capital Turnover is further segregated into Inventory Turnover, Debtors Turnover, and Creditors Turnover.

- **Inventory Turnover Ratio**: This ratio also known as stock turnover ratio establishes the relationship between the cost of goods sold during the year and average inventory held during the year.

$$\text{Inventory Turnover Ratio} = \frac{\text{Sales}}{\text{Average Inventory}^*}$$

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

- **Debtors' Turnover Ratio:** The debtor's turnover ratio throws light on the collection and credit policies of the firm.

$$\frac{\text{Sales}}{\text{Average Accounts Receivable}}$$

- **Creditors' Turnover Ratio:** This ratio shows the velocity of debt payment by the firm. It is calculated as follows:

$$\text{Creditors Turnover Ratio} = \frac{\text{Annual Net Credit Purchases}}{\text{Average Accounts Payable}}$$

(d) Profitability Ratios

The profitability ratios measure the profitability or the operational efficiency of the firm. These ratios reflect the final results of business operations.

- **Return on Equity (ROE) :** Return on Equity measures the profitability of equity funds invested in the firm. This ratio reveals how profitability of the owners' funds have been utilised by the firm.

$$ROE = \frac{\text{Profit after taxes}}{\text{Net worth}}$$

- **Earnings per Share:** The profitability of a firm from the point of view of ordinary shareholders can be measured in terms of number of equity shares. This is known as Earnings per share.

$$\text{Earnings per share (EPS)} = \frac{\text{Net profit available to equity holders}}{\text{Number of ordinary shares outstanding}}$$

- **Dividend per Share:** Dividend per share ratio indicates the amount of profit distributed to shareholders per share.

$$\text{Dividend per share} = \frac{\text{Total profits distributed to equity share holders}}{\text{Number of equity shares}}$$

- **Price Earnings Ratio:** The price earnings ratio indicates the expectation of equity investors about the earnings of the firm. It relates earnings to market price and is generally taken as a summary measure of growth potential of an investment, risk characteristics, shareholders orientation, corporate image and degree of liquidity.

$$\text{PE Ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}}$$

- **Return on Investment (ROI):** It is the percentage of return on funds invested in the business by its owners.

$$\text{Return on Capital Employed} = \frac{\text{Return}}{\text{Capital Employed}} \times 100$$

- **Return on Capital Employed (ROCE)**: It is another variation of ROI.

$$\text{ROCE} = \frac{\text{EBIT}}{\text{Capital Employed}} \times 100$$

- **Return on Assets (ROA):** This ratio measures the profitability of the firm in terms of assets employed in the firm.

$$\text{ROA} = \frac{\text{Net profit after taxes}}{\text{Average total assets}}$$

	• **Gross Profit Ratio:** This ratio is used to compare departmental profitability or product profitability. $$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$ • **Operating Profit Ratio** $$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$ • **Net Profit Ratio:** It measures overall profitability of the business. $$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Sales}} \times 100$$ • **Yield:** This ratio indicates return on investment; this may be on average investment or closing investment. Dividend (%) indicates return on paid up value of shares. But yield (%) is the indicator of true return in which share capital is taken at its market value. $$\text{Yield} = \frac{\text{Dividend}}{\text{Average Share Price}} \times 100$$ $$\text{or} \quad \frac{\text{Dividend}}{\text{Closing Share Price}} \times 100$$ • **Market Value/Book Value per Share:** This ratio indicates market response of the shareholders' investment. $$\frac{\text{Market value per share}}{\text{Book value per share}} = \frac{\text{Average Share Price}}{\text{Net worth/ Number of Equity Shares}}$$ $$\text{or} \quad \frac{\text{Closing Share Price}}{\text{Net worth/Number of Equity Shares}}$$
4. Importance of Ratio Analysis	The importance of ratio analysis lies in the fact that it presents facts on a comparative basis and enables drawing of inferences regarding the performance of a firm. It is relevant in assessing the performance of a firm in respect of following aspects: • Liquidity Position

	• Long-term Solvency • Operating Efficiency • Overall Profitability • Inter-firm Comparison • Financial Ratios for Supporting Budgeting.
5. Cash Flow Statement	Cash flow statement is a statement which discloses the changes in cash position between the two periods. Along with changes in the cash position the cash flow statement also outlines the reasons for such inflows or outflows of cash which in turn helps to analyze the functioning of a business.
6.Classification of Cash Flow Activities	The cash flow statement should report cash flows during the period classified into following categories: • **Operating Activities:** These are the principal revenue-producing activities of the enterprise and other activities that are not investing or financing activities. • **Investing Activities:** These activities relate to the acquisition and disposal of long-term assets and other investments not included in cash equivalents. Cash equivalents are short term highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value. • **Financing Activities:** These are activities that result in changes in the size and composition of the owners' capital (including preference share capital in the case of a company) and borrowings of the enterprise.
7.Procedure in Preparation of Cash Flow Statement	• **Calculation of net increase or decrease in cash and cash equivalents accounts:** The difference between cash and cash equivalents for the period may be computed by comparing these accounts given in the comparative balance sheets. The results will be cash receipts and payments during the period responsible for the increase or decrease in cash and cash equivalent items. • **Calculation of the net cash provided or used by operating activities:** It is by the analysis of Profit and Loss Account, Comparative Balance Sheet and selected additional information. • **Calculation of the net cash provided or used by investing and financing activities**: All other changes in the Balance

	sheet items must be analysed taking into account the additional information and effect on cash may be grouped under the investing and financing activities. • **Final Preparation of a Cash Flow Statement:** It may be prepared by classifying all cash inflows and outflows in terms of operating, investing and financing activities. The net cash flow provided or used in each of these three activities may be highlighted. Ensure that the aggregate of net cash flows from operating, investing and financing activities is equal to net increase or decrease in cash and cash equivalents.
8. Reporting of Cash Flow from Operating Activities	There are two methods of converting net profit into net cash flows from operating activities- • **Direct Method:** actual cash receipts (for a period) from operating revenues and actual cash payments (for a period) for operating expenses are arranged and presented in the cash flow statement. The difference between cash receipts and cash payments is the net cash flow from operating activities. • **Indirect Method:** In this method the net profit (loss) is used as the base then adjusted for items that affected net profit but did not affect cash.
9. Funds Flow Statement	It ascertains the changes in financial position of a firm between two accounting periods. It analyses the reasons for change in financial position between two balance sheets. It shows the inflow and outflow of funds i.e., sources and application of funds during a particular period. • **Sources of Funds** (a) Long term fund raised by issue of shares, debentures or sale of fixed assets and (b) Fund generated from operations which may be taken as a gross before payment of dividend and taxes or net after payment of dividend and taxes. • **Applications of Funds** (a) Investment in Fixed Assets (b) Repayment of Capital

10. Funds Flow Statement vs. Cash Flow Statement	**Cash flow statement**	**Funds flow statement**
	(i) It ascertains the changes in balance of cash in hand and bank.	(i) It ascertains the changes in financial position between two accounting periods.
	(ii) It analyses the reasons for changes in balance of cash in hand and bank.	(ii) It analyses the reasons for change in financial position between two balance sheets.
	(iii) It shows the inflows and outflows of cash.	(iii) It reveals the sources and application of funds.
	(iv) It is an important tool for short term analysis.	(iv) It helps to test whether working capital has been effectively used or not.
	(v) The two significant areas of analysis are cash generating efficiency and free cash flow.	

UNIT – I : APPLICATION OF RATIO ANALYSIS FOR PERFORMANCE EVALUATION, FINANCIAL HEALTH AND DECISION MAKING

Question 1

Discuss any three ratios computed for investment analysis.

Answer

Three ratios computed for investment analysis are as follows:

(i) Earnings per share $= \dfrac{\text{Profit after tax}}{\text{Number of equity shares outstanding}}$

(ii) Dividend yield ratio $= \dfrac{\text{Equity dividend per share} \times 100}{\text{Market price per share}}$

(iii) Return on capital employed $= \dfrac{\text{Net profit before interest and tax} \times 100}{\text{Capital employed}}$

Question 2

Discuss the financial ratios for evaluating company performance on operating efficiency and liquidity position aspects.

Answer

Financial ratios for evaluating performance on operational efficiency and liquidity position aspects are discussed as:

Operating Efficiency: Ratio analysis throws light on the degree of efficiency in the management and utilization of its assets. The various activity ratios (such as turnover ratios) measure this kind of operational efficiency. These ratios are employed to evaluate the efficiency with which the firm manages and utilises its assets. These ratios usually indicate the frequency of sales with respect to its assets. These assets may be capital assets or working capital or average inventory. In fact, the solvency of a firm is, in the ultimate analysis, dependent upon the sales revenues generated by use of its assets – total as well as its components.

Liquidity Position: With the help of ratio analysis, one can draw conclusions regarding liquidity position of a firm. The liquidity position of a firm would be satisfactory, if it is able to meet its current obligations when they become due. Inability to pay-off short-term liabilities affects its credibility as well as its credit rating. Continuous default on the part of the business leads to commercial bankruptcy. Eventually such commercial bankruptcy may lead to its sickness and dissolution. Liquidity ratios are current ratio, liquid ratio and cash to current liability ratio. These ratios are particularly useful in credit analysis by banks and other suppliers of short-term loans.

Question 3

Explain the need of debt-service coverage ratio.

Answer

Debt Service Coverage Ratio: Lenders are interested in this ratio to judge the firm's ability to pay off current interest and installments.

$$\text{Debt service coverage ratio} = \frac{\text{Earnings available for debt service}}{\text{Interest} + \text{Instalment}}$$

Where,

Earning for debt service = Net profit

+ Non-cash operating expenses like depreciation and other amortizations

+ Non-operating adjustments like loss on sale of

+ Fixed assets + Interest on Debt Fund.

Question 4

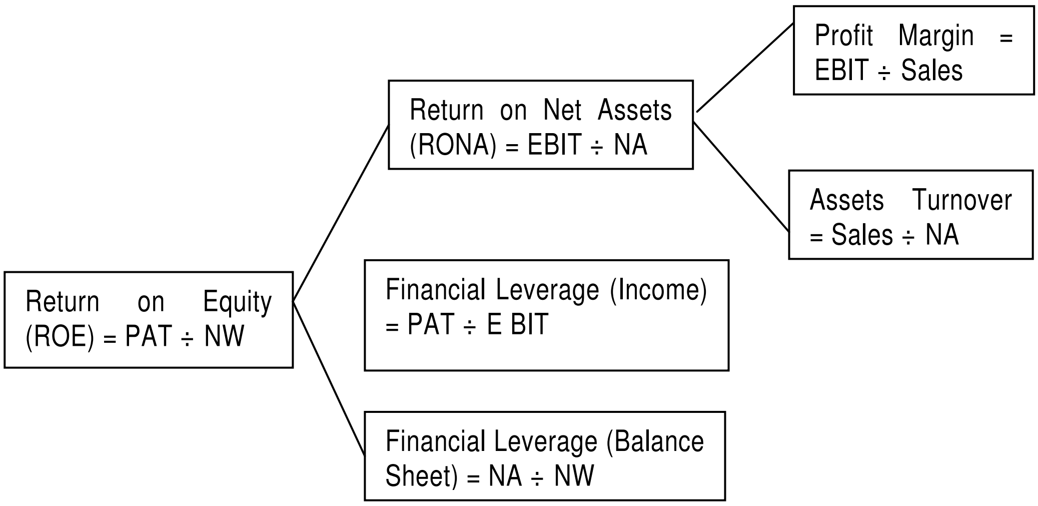
Diagrammatically present the DU PONT CHART to calculate return on equity.

Answer

Du Pont Chart

There are three components in the calculation of return on equity using the traditional DuPont model- the net profit margin, asset turnover, and the equity multiplier. By examining each input individually, the sources of a company's return on equity can be discovered and compared to its competitors.

Return on Equity = (Net Profit Margin) (Asset Turnover) (Equity Multiplier)



Du Pont Chart

Question 5

How return on capital employed is calculated? What is its significance?

Answer

Return on Capital Employed (ROCE): It is another variation of ROI. It is the most important ratio of all. It is the percentage of return on funds invested in the business by its owners. In short, it indicates what returns management has made on the resources made available to them before making any distribution of those returns.

$$\text{Return on Capital Employed} = \frac{\text{EBIT}}{\text{Capital Employed}} \times 100$$

Where,

Capital Employed = Equity Share Capital

+ Reserve and Surplus

+ Pref. Share Capital

+ Debentures and other long term loan

– Misc. expenditure and losses

– Non-trade Investments.

Intangible assets (assets which have no physical existence like goodwill, patents and trademarks) should be included in the capital employed. But no fictitious asset should be included within capital employed.

Question 6

What is quick ratio? What does it signify?

Answer

Quick Ratio: It is a much more exacting measure than the current ratio. It adjusts the current ratio to eliminate all assets that are not already in cash (or near cash form). A ratio less than one indicates low liquidity and hence is a danger sign.

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

Where,

Quick Assets = Current Assets – Inventory

Question 7

What do you mean by Stock Turnover ratio and Gearing ratio?

Answer

Stock Turnover Ratio and Gearing Ratio

Stock Turnover Ratio helps to find out if there is too much inventory build-up. An increasing stock turnover figure or one which is much larger than the "average" for an industry may indicate poor stock management. The formula for the Stock Turnover Ratio is as follows:

$$\text{Stock Turnover ratio} = \frac{\text{Cost of Sales}}{\text{Average inventory}} \text{ or } \frac{\text{Turnover}}{\text{Average inventory}}$$

Gearing Ratio indicates how much of the business is funded by borrowing. In theory, the higher the level of borrowing (gearing), the higher are the risks to a business, since the payment of interest and repayment of debts are not "optional" in the same way as dividends. However, gearing can be a financially sound part of a business's capital structure particularly if the business has strong, predictable cash flows. The formula for the Gearing Ratio is as follows:

$$\text{Gearing Ratio} = \frac{\text{Borrowings (all long term debts including normal overdraft)}}{\text{Net Assets or Shareholders' funds}}$$

Question 8

How is Debt service coverage ratio calculated? What is its significance?

Answer

Calculation of Debt Service Coverage Ratio (DSCR) and its Significance

The debt service coverage ratio can be calculated as under:

$$\text{Debt Service Coverage Ratio} = \frac{\text{Earnings available for debt service}}{\text{Interest} + \text{Installments}}$$

Or, Debt Service Coverage Ratio =
$$\frac{\text{EBITDA}}{\text{Interest} + \dfrac{\text{Principal Repayment Due}}{1 - \text{Tc}}}$$

Debt service coverage ratio indicates the capacity of a firm to service a particular level of debt i.e. repayment of principal and interest. High credit rating firms target DSCR to be greater than 2 in its entire loan life. High DSCR facilitates the firm to borrow at the most competitive rates.

Question 9

Discuss the composition of Return on Equity (ROE) using the DuPont model.

Answer

Composition of Return on Equity using the DuPont Model: There are three components in the calculation of return on equity using the traditional DuPont model- the net profit margin, asset turnover, and the equity multiplier. By examining each input individually, the sources of a company's return on equity can be discovered and compared to its competitors.

(a) *Net Profit Margin:* The net profit margin is simply the after-tax profit a company generates for each rupee of revenue.

Net profit margin = Net Income ÷ Revenue

Net profit margin is a safety cushion; the lower the margin, lesser the room for error.

(b) *Asset Turnover:* The asset turnover ratio is a measure of how effectively a company converts its assets into sales. It is calculated as follows:

Asset Turnover = Revenue ÷ Assets

The asset turnover ratio tends to be inversely related to the net profit margin; i.e., the higher the net profit margin, the lower the asset turnover.

(c) *Equity Multiplier:* It is possible for a company with terrible sales and margins to take on excessive debt and artificially increase its return on equity. The equity multiplier, a measure of financial leverage, allows the investor to see what portion of the return on equity is the result of debt. The equity multiplier is calculated as follows:

Equity Multiplier = *Assets* ÷ *Shareholders' Equity.*

Calculation of Return on Equity

To calculate the return on equity using the DuPont model, simply multiply the three components (net profit margin, asset turnover, and equity multiplier.)

Return on Equity = Net profit margin× Asset turnover × Equity multiplier

Question 10

Explain the following ratios:

(i) Operating ratio

(ii) Price earnings ratio

Answer

(i) Concept of Operating Ratio

$$\text{Operating ratio} = \frac{\text{Cost of goods sold} + \text{operating expenses}}{\text{Net sales}} \times 100$$

This is the test of the operational efficiency with which the business is being carried; the operating ratio should be low enough to leave a portion of sales to give a fair return to the investors.

(ii) Concept of Price-Earnings ratio

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

This ratio indicates the number of times the earnings per share is covered by its market price. It indicates the expectation of equity investors about the earnings of the firm.

Question 11

Explain briefly the limitations of Financial ratios.

Answer

Limitations of Financial Ratios

The limitations of financial ratios are listed below:

(a) *Diversified product lines*: Many businesses operate a large number of divisions in quite different industries. In such cases, ratios calculated on the basis of aggregate data cannot be used for inter-firm comparisons.

(b) *Financial data are badly distorted by inflation*: Historical cost values may be substantially different from true values. Such distortions of financial data are also carried in the financial ratios.

(c) *Seasonal factors* may also influence financial data.

(d) *To give a good shape to the popularly used financial ratios (like current ratio, debt- equity ratios, etc.)*: The business may make some year-end adjustments. Such window dressing can change the character of financial ratios which would be different had there been no such change.

(e) *Differences in accounting policies and accounting period*: It can make the accounting data of two firms non-comparable as also the accounting ratios.

(f) *There is no standard set of ratios against which a firm's ratios can be compared:* Sometimes a firm's ratios are compared with the industry average. But if a firm desires to be above the average, then industry average becomes a low standard. On the other hand, for a below average firm, industry averages become too high a standard to achieve.

(*Note*: *Students may write any four limitations*)

Question 12

Explain the important ratios that would be used in each of the following situations:

(i) A bank is approached by a company for a loan of ₹ 50 lakhs for working capital purposes.

(ii) A long term creditor interested in determining whether his claim is adequately secured.

(iii) A shareholder who is examining his portfolio and who is to decide whether he should hold or sell his holding in the company.

(iv) A finance manager interested to know the effectiveness with which a firm uses its available resources.

Answer

Important Ratios used in different situations

(i) *Liquidity Ratios*- Here Liquidity or short-term solvency ratios would be used by the bank to check the ability of the company to pay its short-term liabilities. A bank may use Current ratio and Quick ratio to judge short terms solvency of the firm.

(ii) *Capital Structure/Leverage Ratios*- Here the long-term creditor would use the capital structure/leverage ratios to ensure the long term stability and structure of the firm. A long term creditors interested in the determining whether his claim is adequately secured may use Debt-service coverage and interest coverage ratio.

(iii) *Profitability Ratios*- The shareholder would use the profitability ratios to measure the profitability or the operational efficiency of the firm to see the final results of business operations. A shareholder may use return on equity, earning per share and dividend per share.

(iv) *Activity Ratios*- The finance manager would use these ratios to evaluate the efficiency with which the firm manages and utilises its assets. Some important ratios are (a) Capital turnover ratio (b) Current and fixed assets turnover ratio (c) Stock, Debtors and Creditors turnover ratio.

Question 13

From the following information, prepare a summarised Balance Sheet as at 31st March, 2002:

Working Capital	*₹ 2,40,000*
Bank overdraft	*₹ 40,000*
Fixed Assets to Proprietary ratio	*0.75*
Reserves and Surplus	*₹ 1,60,000*
Current ratio	*2.5*
Liquid ratio	*1.5*

Answer

Working notes:

1. Current assets and Current liabilities computation:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{2.5}{1} \text{ or } \frac{\text{Current assets}}{2.5} = \frac{\text{Current liabilities}}{1} = \text{k (say)}$$

Or Current assets = 2.5 k and Current liabilities = k

Or Working capital = (Current assets – Current liabilities)

Or ₹ 2,40,000 = k (2.5 – 1) = 1.5 k

Or k = ₹ 1,60,000

∴ Current liabilities = ₹ 1,60,000

Current assets = ₹1,60,000 × 2.5 = ₹4,00,000

2. Computation of stock

Liquid ratio $= \dfrac{\text{Liquid assets}}{\text{Current liabilities}}$

Or 1.5 $= \dfrac{\text{Current assets - Stock}}{\text{Rs.1,60,000}}$

Or 1.5 × ₹ 1,60,000 = ₹ 4,00,000 – Stock

Or Stock = ₹1,60,000

3. Computation of Proprietary fund; Fixed assets; Capital and Sundry creditors

Proprietary ratio $= \dfrac{\text{Fixed assets}}{\text{Proprietary fund}} = 0.75$

∴ Fixed assets = 0.75 Proprietary fund

and Net working capital = 0.25 Proprietary fund

Or ₹2,40,000/0.25 = Proprietary fund

Or Proprietary fund = ₹9,60,000

and Fixed assets = 0.75 proprietary fund

= 0.75 × ₹9,60,000

= ₹7,20,000

Capital = Proprietary fund – Reserves & Surplus

= ₹9,60,000 – ₹1,60,000 = ₹8,00,000

Sundry creditors = (Current liabilities – Bank overdraft)

= (₹1,60,000 – ₹40,000) = ₹1,20,000

Construction of Balance sheet *(Refer to working notes 1 to 3)*

Balance Sheet

	₹		₹
Capital	8,00,000	Fixed assets	7,20,000
Reserves & Surplus	1,60,000	Stock	1,60,000
Bank overdraft	40,000	Current assets	2,40,000
Sundry creditors	1,20,000		
	11,20,000		11,20,000

Question 14

With the help of the following information complete the Balance Sheet of MNOP Ltd.:

Equity share capital	*₹ 1,00,000*
The relevant ratios of the company are as follows:	
Current debt to total debt	*0.40*
Total debt to owner's equity	*0.60*
Fixed assets to owner's equity	*0.60*
Total assets turnover	*2 Times*
Inventory turnover	*8 Times*

Answer

MNOP Ltd
Balance Sheet

Liabilities	₹	*Assets*	₹
Owner equity	1,00,000	Fixed assets	60,000
Current debt	24,000	Cash	60,000
Long term debt	36,000	Inventory	40,000
	1,60,000		1,60,000

Working Notes

1. Total debt = 0.60 × Owners equity = 0.60 × ₹ 1,00,000 = ₹ 60,000

   Current debt to total debt = 0.40 , hence current debt = 0.40 × 60,000 = 24,000

2. Fixed assets = 0.60 × Owners equity = 0.60 × ₹ 1,00,000 = ₹ 60,000
3. Total equity = Total debt + Owners equity = ₹ 60,000 + ₹ 1,00,000 = ₹ 1,60,000
4. Total assets consisting of fixed assets and current assets must be equal to ₹ 1,60,000 (Assets = Liabilities + Owners equity). Since Fixed assets are ₹ 60,000 , hence, current assets should be ₹ 1,00,000
5. Total assets to turnover = 2 Times : Inventory turnover = 8 Times

   Hence , Inventory /Total assets = 2/8=1/4, Total assets = 1,60,000

   Therefore Inventory = 1,60,000/4 = 40,000 Balance on Asset side

6. Cash = 1,00,000 – 40,000 = 60,000

Question 15

Using the following data, complete the Balance Sheet given below:

Gross Profit	*₹ 54,000*
Shareholders' Funds	*₹ 6,00,000*
Gross Profit margin	*20%*
Credit sales to Total sales	*80%*
Total Assets turnover	*0.3 times*
Inventory turnover	*4 times*
Average collection period (a 360 days year)	*20 days*
Current ratio	*1.8*
Long-term Debt to Equity	*40%*

Balance Sheet

Creditors	………………..	*Cash*	………….
Long-term debt	………………..	*Debtors*	………….
Shareholders' funds	………………..	*Inventory*	………….
		Fixed assets	………….

Answer

Gross Profit ₹ 54,000

Gross Profit Margin 20%

$\therefore$ Sales $= \dfrac{\text{Gross Profit}}{\text{Gross Profit Margin}}$ = ₹ 54,000 / 0.20 = ₹ 2,70,000

Credit Sales to Total Sales = 80%

$\therefore$ Credit Sales = ₹ 2,70,000×0.80 = ₹ 2,16,000

Total Assets Turnover = 0.3 times

$\therefore$ Total Assets $= \dfrac{\text{Sales}}{\text{Total Assets Turnover}}$

$= \dfrac{₹\ 2,70,000}{0.3}$ = ₹ 9,00,000

Sales – Gross Profit = COGS

$\therefore$ COGS = ₹ 2, 70,000 – 54,000 = ₹ 2, 16,000

Inventory turnover = 4 times

Inventory = $\frac{\text{COGS}}{\text{Inventory turnover}} = \frac{2,16,000}{4}$ = ₹ 54,000

Average Collection Period = 20 days

∴ Debtors turnover = $\frac{360}{\text{Average Collection Period}}$ = 360/20 = 18

∴ Debtors = $\frac{\text{Credit Sales}}{\text{Debtors turnover}} = \frac{₹\ 2,16,000}{18}$ = ₹12,000

Current ratio = 1.8

1.8 = $\frac{\text{Debtors} + \text{Inventory} + \text{Cash}}{\text{Creditors}}$

1.8 Creditors = (₹ 12,000 + ₹ 54,000 + Cash)

1.8 Creditors = ₹ 66,000 + Cash

Long-term Debt to Equity = 40%

Shareholders' Funds = ₹ 6, 00,000

∴ Long-term Debt = ₹ 6, 00,000 × 40% = ₹ 2, 40,000

Creditors (Balance figure) = 9, 00,000 – (6, 00,000 + 2, 40,000) = ₹ 60,000

∴ Cash = (60,000×1.8) – 66,000 = ₹ 42,000

Balance Sheet

Liabilities	₹	Assets	₹
Creditors (Bal. Fig)	60,000	Cash	42,000
		Debtors	12,000
Long- term debt	2,40,000	Inventory	54,000
Shareholders' funds	6,00,000	Fixed Assets (Bal fig.)	7,92,000
	9,00,000		9,00,000

Question 16

JKL Limited has the following Balance Sheets as on March 31, 2006 and March 31, 2005:

Balance Sheet

	₹ in lakhs	
	March 31, 2006	*March 31, 2005*
Sources of Funds:		
Shareholders Funds	*2,377*	*1,472*

Loan Funds	3,570	3,083
	5,947	4,555
Applications of Funds:		
Fixed Assets	3,466	2,900
Cash and bank	489	470
Debtors	1,495	1,168
Stock	2,867	2,407
Other Current Assets	1,567	1,404
Less: Current Liabilities	(3,937)	(3,794)
	5,947	4,555

The Income Statement of the JKL Ltd. for the year ended is as follows:

	₹ in lakhs	
	March 31, 2006	March 31, 2005
Sales	22,165	13,882
Less: Cost of Goods sold	20,860	12,544
Gross Profit	1,305	1,338
Less: Selling, General and Administrative expenses	1,135	752
Earnings before Interest and Tax (EBIT)	170	586
Interest Expense	113	105
Profits before Tax	57	481
Tax	23	192
Profits after Tax (PAT)	34	289

Required:

(i) Calculate for the year 2005-06:

- (a) Inventory turnover ratio
- (b) Financial Leverage
- (c) Return on Investment (ROI)
- (d) Return on Equity (ROE)
- (e) Average Collection period.

(ii) Give a brief comment on the Financial Position of JKL Limited.

Answer

Ratios for the year 2005-2006

(i) (a) **Inventory turnover ratio**

$$= \frac{\text{COGS}}{\text{Average Inventory}} = \frac{20,860}{\frac{(2,867 + 2,407)}{2}} = 7.91$$

(b) **Financial leverage**

	2005-06	*2004-05*
$= \frac{\text{EBIT}}{\text{EBIT} - \text{I}}$	$= \frac{170}{57}$ = 2.98	$= \frac{586}{481}$ = 1.22

(c) **ROI**

$$= \frac{\text{NOPAT}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average Capital employed}}$$

$$= \frac{57 \times (1 - .4)}{22,165} \times \frac{22,165}{\frac{(5,947 + 4,555)}{2}} = \frac{34.2}{22,165} \times \frac{22,165}{5,251} = 0.65\%$$

(d) **ROE**

$$= \frac{\text{PAT}}{\text{Average shareholders' funds}} = \frac{34}{\frac{(2,377 + 1,472)}{2}} = \frac{34}{1,924.5} = 1.77\%$$

(e) **Average Collection Period***

$$\text{Average Sales per day} = \frac{22,165}{365} = ₹\ 60.73 \text{ lakhs}$$

$$\text{Average collection period} = \frac{\text{Average Debtors}}{\text{Average sales per day}} = \frac{\frac{(1,495 + 1,168)}{2}}{60.73} = \frac{1331.5}{60.73} = 22 \text{ days}$$

***Note:** In the above solution, 1 year = 365 days has been assumed. Alternatively, it may be solved on the basis of 1 year = 360 days.

(ii) Brief Comment on the financial position of JKL Ltd.

The profitability of operations of the company are showing sharp decline due to increase in operating expenses. The financial and operating leverages are becoming adverse.

The liquidity of the company is under great stress.

Question 17

The Financial statements of Excel AMP Graphics Limited are as under:

Balance Sheet As at 31st December, 2001

			(₹ in crores)
Sources of Funds:	*2001*		*2000*
Shareholders' funds			
Share Capital	*1,121*		*931*
Reserves & Surplus	*8,950*	*10,071*	*7,999*
			8,930
Loan Funds:			
Secured Loans	–		*259*
Finance lease obligations	*74*		–
Unsecured loans	*171*	*245*	*115*
			374
		10,316	*9,304*
Applications of Funds:			
Fixed Assets			
Gross Block	*6,667*		*5,747*
Less: Depreciation	*3,150*		*2,561*
Net Block	*3,517*		*3,186*
Capital Work-in-progress	*27*	*3,544*	*28*
			3,214
Investments		*288*	*222*
Current Assets, Loans & Advances:			
Inventories	*2,709*		*2,540*
Sundry debtors	*9,468*		*9,428*
Cash & Bank Balances	*3,206*		*662*
Loans & Advances	*2,043*		*1,712*
	17,426		*14,342*

Less: Current liabilities & Provisions			
Current liabilities	10,109		7,902
Provisions	513		572
	10,622		8,474
Net Current Assets		6,804	5,868
Net Deferred Tax Liabiliy		(320)	–
		10,316	9,304

Profit and Loss Account
For the year ended 31 December, 2001

	2001		2000	(₹ in crores)
Income:				
Sales & Services			23,436	17,849
Other Income			320	306
			23,756	18,155
Expenditure:				
Cost of Materials		15,179		10,996
Personnel Expenses		2,543		2,293
Other Expenses		3,546		2,815
Depreciation	419		383	
Less: Transfer from revaluation reserve	7	412	6	377
Interest		164		88
			21,844	16,569
Profit Before Tax			1,912	1,586
Provision for Tax:				
Current Tax			450	371
Deferred Tax			(6)	–
Profit after Tax			1,468	1,215

Required:

(a) *Compute and analyse the return on capital employed (ROCE) in a Du-Pont control chart framework.*

(b) *Compute and analyse the average inventory holding period and average collection period.*

(c) *Compute and analyse the return on equity (ROE) by bringing out clearly the impact of financial leverage.*

Answer

(a) Working note:

Computation of Cost of goods sold (COGS), Operating profit before depreciation, interest & tax (OPBDIT), Operating profit before interest and tax (OPBIT), Profit before interest and tax (PBIT), Profit before tax (PBT) and Profit after tax (PAT)

	(₹ in crores)	
Year	*2001*	*2000*
Cost of goods sold (COGS)	21,268	16,104
(Material consumed + Personnel expenses + Other expenses)		
Operating profit before depreciation, interest and tax (OPBDIT)	2,168	1,745
(Income from sales & service – COGS)		
Operating profit before interest and tax (OPBIT)	1,756	1,368
(OPBDIT – depreciation)		
Profit before interest and tax (PBIT)	2,076	1,674
(OPBIT + Other incomes)		
Profit before tax (PBT)	1,912	1,586
(PBIT – Interest)		
Profit after tax (PAT)	1,468	1,215
(PBT – Tax)		

Return on capital employed (ROCE): *(Before interest & tax)*

$$= \frac{\text{Operating profits before interest and tax}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital employed}} = \frac{\text{OPBIT}}{\text{Capital employed}}$$

* Capital employed = (Balance sheet total – Capital WIP – Investments – Loans & advances)

	Year	
	2001	*2000*
ROCE *(Refer to working note)*	22.07% $\left(\frac{₹\ 1{,}756}{₹\ 7{,}958} \times 100\right)$	18.63% $\left(\frac{₹\ 1{,}368}{₹\ 7{,}342} \times 100\right)$

Operating profit margin	7.49%	7.66%
(Refer to working note)	$\left(\frac{₹\ 1,756}{₹\ 23,436}\times 100\right)$	$\left(\frac{₹\ 1,368}{₹\ 17,849}\times 100\right)$
Material consumed / Sales	64.77%	61.61%
Personnel expenses /Sales	10.85%	12.85%
Other expenses / Sales	15.13%	15.77%
Depreciation / Sales	1.76%	2.11%

(b) Computation and analysis of average inventory holding period and average collection period:

		(₹ ' in crores)
Year	*2001*	*2000*
1. Inventory turnover ratio:	5.60	4.33
(Material consumed/ Closing inventory)	(₹15,179/₹2,709)	(₹10,996/₹2,540)
2. Average inventory turnover period:	64 days	83 days
(360 days / Inventory turnover ratio)		
3. Receivables turnover ratio:	2.48	1.89
(Net credit sales/Closing Sundry	(₹23,436/₹9,468)	(₹17,849/₹9,428)
4. Average collection period:	145 days	190 days
(360 days / Receivables turnover ratio)		

(c) ROE = PAT / Shareholders' funds

2001	*2000*
$= \frac{1,468\,\text{Cr.}}{10,071\,\text{Cr.}}$	$\frac{1,215\,\text{Cr.}}{8,930\,\text{Cr.}}$
= 14.58 %	13.61%

$$\text{ROE} = \text{ROA} + \frac{D}{E}\{(\text{ROA} - i * (1 - T_c)\}$$

ROA (Post tax)	14.34%	12.11%
{(ROCE ∗ (1 – .35)}		
Tax / PBT	23.22%	23.39%
Loan funds / Total funds	2.37%	4.02%
Shareholders' Funds / Total funds	97.63%	95.98%

ROE is marginally better than ROA, as debt ratio employed by the company is minimal.

Question 18

The following accounting information and financial ratios of PQR Ltd. relate to the year ended 31st December, 2006:

		2006
I	*Accounting Information:*	
	Gross Profit	*15% of Sales*
	Net profit	*8% of sales*
	Raw materials consumed	*20% of works cost*
	Direct wages	*10% of works cost*
	Stock of raw materials	*3 months' usage*
	Stock of finished goods	*6% of works cost*
	Debt collection period	*60 days*
	All sales are on credit	
II	*Financial Ratios:*	
	Fixed assets to sales	*1 : 3*
	Fixed assets to Current assets	*13 : 11*
	Current ratio	*2 : 1*
	Long-term loans to Current liabilities	*2 : 1*
	Capital to Reserves and Surplus	*1 : 4*

If value of fixed assets as on 31st December, 2005 amounted to ₹26 lakhs, prepare a summarised Profit and Loss Account of the company for the year ended 31st December, 2006 and also the Balance Sheet as on 31st December, 2006.

Answer

(a) Working Notes:

(i) Calculation of Sales

$$\frac{\text{Fixed Assets}}{\text{Sales}} = \frac{1}{3}$$

$$\therefore \frac{26{,}00{,}000}{\text{Sales}} = \frac{1}{3} \Rightarrow \text{Sales} = ₹\ 78{,}00{,}000$$

(ii) Calculation of Current Assets

$$\frac{\text{Fixed Assets}}{\text{Current Assets}} = \frac{13}{11}$$

$$\therefore \frac{26,00,000}{\text{Current Assets}} = \frac{13}{11} \Rightarrow \text{Current Assets} = ₹\ 22,00,000$$

(iii) *Calculation of Raw Material Consumption and Direct Wages*

	₹
Sales	78,00,000
Less: Gross Profit	11,70,000
Works Cost	66,30,000

Raw Material Consumption (20% of Works Cost) ₹13,26,000

Direct Wages (10% of Works Cost) ₹ 6,63,000

(iv) *Calculation of Stock of Raw Materials (= 3 months usage)*

$$= 13,26,000 \times \frac{3}{12} = ₹\ 3,31,500$$

(v) *Calculation of Stock of Finished Goods (= 6% of Works Cost)*

$$= 66,30,000 \times \frac{6}{100} = ₹\ 3,97,800$$

(vi) *Calculation of Current Liabilities*

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} = 2$$

$$\frac{22,00,000}{\text{Current Liabilities}} = 2 \Rightarrow \text{Current Liabilities} = ₹\ 11,00,000$$

(vii) *Calculation of Debtors*

$$\text{Average collection period} = \frac{\text{Debtors}}{\text{Credit Sales}} \times 365$$

$$\frac{\text{Debtors}}{78,00,000} \times 365 = 60 \Rightarrow \text{Debtors} = ₹\ 12,82,191.78 \text{ or } ₹\ 12,82,192$$

(viii) *Calculation of Long term Loan*

$$\frac{\text{Long term Loan}}{\text{Current Liabilities}} = \frac{2}{1}$$

$$\frac{\text{Long term loan}}{11,00,000} = \frac{2}{1} \Rightarrow \text{Long term loan} = ₹\ 22,00,000.$$

(ix) Calculation of Cash Balance

		₹
Current assets		22,00,000
Less: Debtors	12,82,192	
Raw materials stock	3,31,500	
Finished goods stock	3,97,800	20,11,492
Cash balance		1,88,508

(x) Calculation of Net worth

Fixed Assets		26,00,000
Current Assets		22,00,000
Total Assets		48,00,000
Less: Long term Loan	22,00,000	
Current Liabilities	11,00,000	33,00,000
Net worth		15,00,000

Net worth = Share capital + Reserves = 15,00,000

$$\frac{\text{Capital}}{\text{Reserves and Surplus}} = \frac{1}{4} \Rightarrow \text{Share Capital} = 15,00,000 \times \frac{1}{5} = ₹\ 3,00,000$$

$$\text{Reserves and Surplus} = 15,00,000 \times \frac{4}{5} = ₹\ 12,00,000$$

Profit and Loss Account of PQR Ltd.
for the year ended 31st December, 2006

Particulars	₹	Particulars	₹
To Direct Materials	13,26,000	By Sales	78,00,000
To Direct Wages	6,63,000		
To Works (Overhead) Balancing figure	46,41,000		
To Gross Profit c/d (15% of Sales)	11,70,000		
	78,00,000		78,00,000

To	Selling and Distribution Expenses (Balancing figure)	5,46,000	By	Gross Profit b/d	11,70,000
To	Net Profit (8% of Sales)	6,24,000			
		11,70,000			11,70,000

Balance Sheet of PQR Ltd.
as at 31st December, 2006

Liabilities	₹	*Assets*	₹
Share Capital	3,00,000	Fixed Assets	26,00,000
Reserves and Surplus	12,00,000	Current Assets:	
Long term loans	22,00,000	Stock of Raw Material	3,31,500
Current liabilities	11,00,000	Stock of Finished Goods	3,97,800
		Debtors	12,82,192
		Cash	1,88,508
	48,00,000		48,00,000

Question 19

Using the following information, complete the Balance Sheet given below:

(i)	*Total debt to net worth*	:	*1 : 2*
(ii)	*Total assets turnover*	:	*2*
(iii)	*Gross profit on sales*	:	*30%*
(iv)	*Average collection period* *(Assume 360 days in a year)*	:	*40 days*
(v)	*Inventory turnover ratio based on cost of goods sold and year-end inventory*	:	*3*
(vi)	*Acid test ratio*	:	*0.75*

Balance Sheet
as on March 31, 2007

Liabilities	₹	*Assets*	₹
Equity Shares Capital	*4,00,000*	*Plant and Machinery and other Fixed Assets*	–
Reserves and Surplus	*6,00,000*		
Total Debt:		*Current Assets:*	
Current Liabilities	–	*Inventory*	–
		Debtors	–
		Cash	–

Answer

Networth = Capital + Reserves and surplus

= 4,00,000 + 6,00,000 = ₹10,00,000

$$\frac{\text{Total Debt}}{\text{Networth}} = \frac{1}{2}$$

∴ Total debt = ₹5,00,000

Total Liability side = 4,00,000 + 6,00,000 + 5,00,000

= ₹15,00,000

= Total Assets

$$\text{Total Assets Turnover} = \frac{\text{Sales}}{\text{Total assets}}$$

$$2 = \frac{\text{Sales}}{15,00,000}$$

∴ Sales = ₹ 30,00,000

Gross Profit on Sales : 30% i.e. ₹ 9,00,000

∴ COGS = ₹ 30,00,000 – ₹ 9,00,000

= ₹ 21,00,000

$$\text{Inventory turnover} = \frac{\text{COGS}}{\text{Inventory}}$$

$$3 = \frac{21,00,000}{\text{Inventory}}$$

∴ Inventory = ₹7,00,000

$$\text{Average collection period} = \frac{\text{Average debtors}}{\text{Sales / day}}$$

$$40 = \frac{\text{Debtors}}{30,00,000/360}$$

∴ Debtors = ₹3,33,333.

$$\text{Acid test ratio} = \frac{\text{Current Assets} - \text{Stock}}{\text{Current liabilities}}$$

$$0.75 = \frac{\text{Current Assets} - 7{,}00{,}000}{5{,}00{,}000}$$

∴ Current Assets = ₹10,75,000.

∴ Fixed Assets = Total Assets – Current Assets

= 15,00,000 – 10,75,000 = ₹ 4,25,000

Cash and Bank balance = Current Assets – Inventory – Debtors

= 10,75,000 – 7,00,000 – 3,33,333 = ₹ 41,667.

Balance Sheet as on March 31, 2007

Liabilities	₹	*Assets*	₹
Equity Share Capital	4,00,000	Plant and Machinery and other Fixed Assets	4,25,000
Reserves & Surplus	6,00,000		
Total Debt:		Current Assets:	
Current liabilities	5,00,000	Inventory	7,00,000
		Debtors	3,33,333
		Cash	41,667
	15,00,000		15,00,000

Question 20

MN Limited gives you the following information related for the year ending 31st March, 2009:

(1) Current Ratio	*2.5 : 1*
(2) Debt-Equity Ratio	*1 : 1.5*
(3) Return on Total Assets	*15%*
(4) Total Assets Turnover Ratio	*2*
(5) Gross Profit Ratio	*20%*
(6) Stock Turnover Ratio	*7*
(7) Current Market Price per Equity Share	*₹ 16*
(8) Net Working Capital	*₹ 4,50,000*
(9) Fixed Assets	*₹ 10,00,000*
(10) 60,000 Equity Shares of	*₹ 10 each*
(11) 20,000, 9% Preference Shares of	*₹ 10 each*
(12) Opening Stock	*₹ 3,80,000*

You are required to calculate:

(i) Quick Ratio

(ii) Fixed Assets Turnover Ratio

(iii) Proprietary Ratio

(iv) Earnings per Share

(v) Price-Earning Ratio.

Answer

(a) Workings Notes:

1. Net Working Capital = Current Assets – Current Liabilities

= 2.5 – 1=1.5

Thus, Current Assets = $\frac{\text{Net Working Capital} \times 2.5}{1.5}$

= $\frac{₹\ 4,50,000 \times 2.5}{1.5}$ = ₹ 7,50,000

Current Liabilities = ₹ 7,50,000 – ₹ 4,50,000 = ₹ 3,00,000

2. Sales = Total Assets Turnover × Total Assets

= 2 × (₹ 10,00,000 + ₹ 7,50,000) = ₹ 35,00,000

3. Cost of Goods Sold = 100 – 20 = 80% of Sales

= 80% of ₹ 35,00,000 = ₹ 28,00,000

4. Average Stock = $\frac{\text{Cost of Good Sold}}{\text{Stock Turnover Ratio}}$

= $\frac{₹\ 28,00,000}{7}$ = ₹ 4,00,000

Closing Stock = (Average Stock ×2) – Opening Stock

= (₹ 4,00,000 × 2) – ₹ 3,80,000 = ₹ 4,20,000

Quick Assets = Current Assets – Closing Stock

= ₹ 7,50,000 – ₹ 4,20,000 = ₹ 3,30,000

Net Worth = $\frac{\text{Total Assets (Debt + Equity)} \times 1.5}{(1+1.5)}$

= $\frac{₹\ 17,50,000 \times 1.5}{2.5}$ = ₹10,50,000

5. Profit after tax (PAT) = Total Assets × Return on Total Assets

$$= ₹\ 17,50,000 \times 15\% = ₹\ 2,62,500$$

(i) Calculation of Quick Ratio

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}} = \frac{₹\ 3,30,000}{₹\ 3,00,000} = 1.1:1$$

(ii) Calculation of Fixed Assets Turnover Ratio

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Fixed Assets}} = \frac{₹\ 35,00,000}{₹\ 10,00,000} = 3.5$$

(iii) Calculation of Proprietary Ratio

$$\text{Proprietary Ratio} = \frac{\text{Networth}}{\text{Total Assets}}$$

$$= \frac{₹\ 10,50,\ 000}{₹\ 17,50,000} = 0.6 : 1$$

(iv) Calculation of Earnings per Equity Share (EPS)

$$\text{Earnings per Equity Share (EPS)} = \frac{\text{PAT} - \text{Preference Share Dividend}}{\text{Number of Equity Shares}}$$

$$= \frac{₹\ 2,62,500 - ₹\ 18,000}{60,000} = ₹\ 4.075 \text{ per share}$$

(v) Calculation of Price-Earnings Ratio (P/E Ratio)

$$\text{P/E Ratio} = \frac{\text{Market Price of Equity Share}}{\text{EPS}} = \frac{₹\ 16}{₹\ 4.075} = 3.926$$

Question 21

ABC Limited has an average cost of debt at 10 per cent and tax rate is 40 per cent. The Financial leverage ratio for the company is 0.60. Calculate Return on Equity (ROE) if its Return on Investment (ROI) is 20 per cent.

Answer

ROE = [ROI + {(ROI – r) × D/E}] (1 – t)

= [0.20 + {(0.20 – 0.10) × 0.60}] (1 – 0.40)

=[0.20 + 0.06] × 0.60 = 0.1560

ROE = 15.60%

Question 22

From the information given below calculate the amount of Fixed assets and Proprietor's fund.

Ratio of fixed assets to proprietors fund	*= 0.75*
Net Working Capital	*= ₹ 6,00,000*

Answer

Calculation of Fixed Assets and Proprietor's Fund

Since Ratio of Fixed Assets to Proprietor's Fund	= 0.75
Therefore, Fixed Assets	= 0.75 Proprietor's Fund
Net Working Capital	= 0.25 Proprietor's Fund
6,00,000	= 0.25 Proprietor's Fund
Therefore, Proprietor's Fund	$= \frac{₹\ 6,00,000}{0.25}$
	= ₹ 24,00,000

Proprietor's Fund = ₹ 24,00,000

Since, Fixed Assets	= 0.75 Proprietor's Fund
Therefore, Fixed Assets	= 0.75 × 24,00,000 = ₹ 18,00,000

Fixed Assets = ₹ 18,00,000

Question 23

MNP Limited has made plans for the next year 2010 -11. It is estimated that the company will employ total assets of ₹ 25,00,000; 30% of assets being financed by debt at an interest cost of 9% p.a. The direct costs for the year are estimated at ₹ 15,00,000 and all other operating expenses are estimated at ₹ 2,40,000. The sales revenue are estimated at ₹ 22,50,000. Tax rate is assumed to be 40%. Required to calculate:

(i) Net profit margin;

(ii) Return on Assets;

(iii) Asset turnover; and

(iv) Return on Equity.

Answer

The net profit is calculated as follows:

	₹
Sales Revenue	22,50,000
Less: Direct Costs	15,00,000
Gross Profits	7,50,000
Less: Operating Expense	2,40,000
EBIT	5,10,000
Less: Interest (9% × 7,50,000)	67,500
EBT	4,42,500
Less: Taxes (@ 40%)	1,77,000
PAT	2,65,500

(i) Net Profit Margin

$$\text{Net Profit Margin} = \frac{\text{EBIT (1 - t)}}{\text{Sales}} \times 100 = \frac{5{,}10{,}000 \times (1-0.4)}{22{,}50{,}000} = 13.6\%$$

(ii) Return on Assets (ROA)

ROA = EBIT (1− t) ÷ Total Assets

= 5,10,000 (1− 0.4) ÷ 25,00,000 = 3,06,000 ÷ 25,00,000

= 0.1224 = 12.24%

(iii) Asset Turnover

$$\text{Asset Turnover} = \frac{\text{Sales}}{\text{Assets}} = \frac{22{,}50{,}000}{25{,}00{,}000} = 0.9$$

Asset Turnover = 0.9

(iv) Return on Equity (ROE)

$$\text{ROE} = \frac{\text{PAT}}{\text{Equity}} = \frac{2{,}65{,}500}{17{,}50{,}000} = 15.17\%$$

ROE = 15.17%

Question 24

The financial statements of a company contain the following information for the year ending 31st March, 2011:

Particulars	*₹*
Cash	*1,60,000*
Sundry Debtors	*4,00,000*
Short-term Investment	*3,20,000*
Stock	*21,60,000*
Prepaid Expenses	*10,000*
Total Current Assets	*30,50,000*
Current Liabilities	*10,00,000*
10% Debentures	*16,00,000*
Equity Share Capital	*20,00,000*
Retained Earnings	*8,00,000*
Statement of Profit for the year ended 31st March, 2011	
Sales (20% cash sales)	*40,00,000*
Less: Cost of goods sold	*28,00,000*
Profit before Interest & Tax	*12,00,000*
Less: Interest	*1,60,000*
Profit before tax	*10,40,000*
Less: Tax @ 30%	*3,12,000*
Profit After Tax	*7,28,000*

You are required to calculate:

(i) Quick Ratio

(ii) Debt-equity Ratio

(iii) Return on Capital Employed, and

(iv) Average collection period (Assuming 360 days in a year).

Answer

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

Quick Assets = Current Assets – Stock – Prepaid Expenses

= 30,50,000 – 21,60,000 –10,000

Quick Assets = 8,80,000

Quick Ratio = 8,80,000/10,00,000 = 0.88 : 1

(ii) Debt-Equity Ratio $= \frac{\text{Long term debt}}{\text{Shareholders Funds}}$

$$= \frac{16,00,000}{(20,00,000 + 8,00,000)} = 0.57{:}1$$

(iii) Return on Capital Employed (ROCE)

$$\text{ROCE} = \frac{\text{PBIT}}{\text{Capital Employed}} \times 100$$

$$= \frac{12,00,000}{44,00,000} \times 100 = 27.27\%$$

(iv) Average Collection Period

$$= \frac{\text{Sundry Debtors}}{\text{Credit Sales}} \times 360$$

$$= \frac{4,00,000}{32,00,000} \times 360 = 45 \text{ days}$$

Question 25

The following accounting information and financial ratios of M Limited relate to the year ended 31st March, 2012 :

Inventory Turnover Ratio	*6 Times*
Creditors Turnover Ratio	*10 Times*
Debtors Turnover Ratio	*8 Times*
Current Ratio	2.4
Gross Profit Ratio	*25%*

Total sales ₹ 30,00,000; cash sales 25% of credit sales; cash purchases ₹ 2,30,000; working capital ₹ 2,80,000; closing inventory is ₹ 80,000 more than opening inventory.

You are required to calculate:

(i) Average Inventory

(ii) Purchases

(iii) Average Debtors

(iv) Average Creditors

(v) Average Payment Period

(vi) Average Collection Period

(vii) Current Assets

(viii) Current Liabilities.

Answer

(i) Computation of Average Inventory

Gross Profit = 25% of 30,00,000

Gross Profit = 7,50,000

Cost of goods sold (COGS) = 30,00,000 – 7,50,000

COGS = 22,50,000

$$\text{Inventory Turnover Ratio} = \frac{\text{COGS}}{\text{Average Inventory}}$$

$$6 = \frac{22{,}50{,}000}{\text{Average inventory}}$$

Average inventory = 3,75,000

(ii) Computation of Purchases

Purchases = COGS + Increase in Stock = 22,50,000 + 80,000

Purchases = 23,30,000

(iii) Computation of Average Debtors

Let Credit Sales be ₹ 100

$$\text{Cash sales} = \frac{25}{100} \text{ x } 100 = ₹\ 25$$

Total Sales = 100 +25= 125

Total sales is ₹ 125 credit sales is ₹ 100

$$\text{If total sales is 30,00,000, then credit sales is} = \frac{30{,}00{,}000 \text{x} 100}{125}$$

Credit Sales = 24,00,000

Cash Sales = 6,00,000

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average debtors}} = 8 = \frac{24{,}00{,}000}{\text{Average debtors}} = 8$$

$$\text{Average Debtors} = \frac{24{,}00{,}000}{8}$$

Average Debtors = 3,00,000

(iv) Computation of Average Creditors

Credit Purchases = Purchases – Cash Purchases

= 23,30,000 – 2,30,000 = 21,00,000

$$\text{Creditors Turnover Ratio} = \frac{\text{Credit Purchases}}{\text{Average Creditors}}$$

$$10 = \frac{21,00,000}{\text{Average Creditors}}$$

Average Creditors = 2,10,000

(v) Computation of Average Payment Period

$$\text{Average Payment Period} = \frac{\text{Average Creditors}}{\text{Average Daily Credit Purchases}}$$

$$= \frac{2,10,000}{\left(\frac{\text{Credit Purchases}}{365}\right)} = \frac{2,10,000}{\left(\frac{21,00,000}{365}\right)}$$

$$= \frac{2,10,000}{21,00,000} \text{ x } 365 = 36.5 \text{ days}$$

OR

Average Payment Period = 365/Creditors Turnover Ratio

$$= \frac{365}{10} = 36.5 \text{ days}$$

(vi) Computation of Average Collection Period

$$\text{Average Collection Period} = \frac{\text{Average Debtors}}{\text{Net Credit Sales}} \times 365$$

$$= \frac{3,00,000}{24,00,000} \times 365 = 45.625 \text{ days}$$

OR

Average collection period = 365/ Debtors Turnover Ratio

$$= \frac{365}{8} = 45.625 \text{ days}$$

(vii) Computation of Current Assets

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

2.4 Current Liabilities = Current Assets or CL = CA/2.4

Working capital = Current Assets – Current liabilities

2,80,000 = CA-CA/2.4

2,80,000 = 1.4 CA/2.4

CA = 4,80,000

(viii) Computation of Current Liabilities

$$\textbf{Current liabilities} = \frac{4,80,000}{2.4} = \textbf{2,00,000}$$

Question 26

The following information relates to Beta Ltd. for the year ended 31st March 2013:

Net Working Capital	***₹ 12,00,000***
Fixed Assets to Proprietor's Fund Ratio	***0.75***
Working Capital Turnover Ratio	***5 Times***
Return on Equity (ROE)	***15%***

There is no debt capital.

You are required to calculate:

(i) Proprietor's Fund

(ii) Fixed Assets

(iii) Net Profit Ratio.

Answer

(i) Calculation of Proprietor's Fund

Since Ratio of Fixed Assets to Proprietor's Fund	***= 0.75***
Therefore, Fixed Assets	***= 0.75 Proprietor's Fund***
Net Working Capital	***= 0.25 Proprietor's Fund***
12,00,000	***= 0.25 Proprietor's Fund***
Therefore, Proprietors Fund	$= \frac{12,00,000}{0.25} = 48,00,000$

(ii) Calculation of Fixed Assets

Fixed Assets	*= 0.75 Proprietor's Fund*
	= 0.75 x 48,00,000
	= 36,00,000

(iii) Calculation of Net Profit Ratio

Net Working Capital	*= 0.25 x 48,00,000*
	= 12,00,000
Working Capital Turnover Ratio	$= \frac{Sales}{Working\ Capital}$
∴ Sales	*= 60,00,000*
ROE	$= \frac{PAT}{Equity}$
0.15	$= \frac{PAT}{48,00,000}$
PAT	*= 7,20,000*
Net Profit Ratio	$= \frac{Net\ Profit}{Sales} x100$
	$= \frac{7,20,000}{60,00,000} x\ 100$
Net Profit Ratio	*= 12%*

[Note: Fixed Assets may be computed alternatively by (Net Working Capital × Fixed Assets to Proprietor's Fund Ratio) and Proprietor's Fund by (Fixed Assets + Net Working Capital)].

Question 27

The assets of SONA Ltd. consist of fixed assets and current assets, while its current liabilities comprise bank credit in the ratio of 2 : 1. You are required to prepare the Balance Sheet of the company as on 31st March 2013 with the help of following information:

Share Capital	*₹ 5,75,000*
Working Capital (CA-CL)	*₹ 1,50,000*
Gross Margin	*25%*
Inventory Turnover	*5 times*

Average Collection Period	*1.5 months*
Current Ratio	*1.5:1*
Quick Ratio	*0.8: 1*
Reserves & Surplus to Bank & Cash	*4 times*

Answer

Working Notes:

1. ***Computation of Current Assets (CA) and Current Liabilities (CL)***

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

$$\frac{CA}{CL} = \frac{1.5}{1}$$

$$\therefore CA = 1.5\ CL$$

$$CA - CL = 1,50,000$$

$$1.5\ CL - CL = 1,50,000$$

$$0.5\ CL = 1,50,000$$

$$CL = \frac{1,50,000}{0.5} = 3,00,000$$

$$CA = 1.5 \times 3,00,000 = 4,50,000$$

2. ***Computation of Bank Credit (BC) and Other Current Liabilities (OCL)***

$$\frac{\text{Bank Credit}}{\text{Other CL}} = \frac{2}{1}$$

$$BC = 2\ OCL$$

$$BC + OCL = CL$$

$$2\ OCL + OCL = 3,00,000$$

$$3\ OCL = 3,00,000$$

$$OCL = 1,00,000$$

$$\text{Bank Credit} = 2 \times 1,00,000 = 2,00,000$$

3. ***Computation of Inventory***

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

$$= \frac{\text{Current Assets - Inventories}}{\text{Current Liabilities}}$$

$$0.8 = \frac{4,50,000 - \text{Inventories}}{3,00,000}$$

$0.8 \times 3,00,000 = 4,50,000 - \text{Inventories}$

$\text{Inventories} = 4,50,000 - 2,40,000 = 2,10,000$

4. *Computation of Debtors*

Inventory Turnover $= 5$ *times*

$$\text{Average Inventory} = \frac{\text{COGS}}{\text{Inventory Turnover}}$$

$\text{COGS} = 2,10,000 \times 5 = 10,50,000$

Average Collection Period (ACP) $= 1.5$ *months* $= 45$ *days*

$$\text{Debtors Turnover} = \frac{360}{\text{ACP}} = \frac{360}{45} = 8$$

$$\frac{\text{Sales - COGS}}{\text{Sales}} \times 100 = 25\%$$

$$\text{Sales - COGS} = \frac{25 \times \text{Sales}}{100}$$

$\text{Sales} - 0.25 \text{ Sales} = \text{COGS}$

$0.75 \text{ Sales} = 10,50,000$

$$\text{Sales} = \frac{10,50,000}{0.75} = 14,00,000$$

$$\text{Debtors} = \frac{\text{Sales}}{\text{Debtors Turnover}}$$

$$= \frac{14,00,000}{8} = 1,75,000$$

5. *Computation of Bank and Cash*

$\text{Bank \& Cash} = \text{CA} - (\text{Debtors} + \text{Inventory})$

$= 4,50,000 - (1,75,000 + 2,10,000) = 4,50,000 - 3,85,000 = 65,000$

6. *Computation of Reserves & Surplus*

$$\frac{\text{Reserves \& Surplus}}{\text{Bank \& Cash}} = 4$$

Reserves & Surplus $= 4 \times 65{,}000 = 2{,}60{,}000$

Balance Sheet of SONA Ltd. as on March 31, 2013

Liabilities	₹	Assets	₹
Share Capital	5,75,000	Fixed Assets	6,85,000
Reserves & Surplus	2,60,000	Current Assets:	
Current Liabilities:		Inventories	2,10,000
Bank Credit	2,00,000	Debtors	1,75,000
Other Current Liabilities	1,00,000	Bank & Cash	65,000
	11,35,000		11,35,000

UNIT – II : CASH FLOW AND FUNDS FLOW ANALYSIS

Question 1

Distinguish between Cash Flow and Fund Flow statement.

Answer

The points of distinction between cash flow and funds flow statement are as below:

Cash flow statement	Funds flow statement
(i) It ascertains the changes in balance of cash in hand and bank.	(i) It ascertains the changes in financial position between two accounting periods.
(ii) It analyses the reasons for changes in balance of cash in hand and bank	(ii) It analyses the reasons for change in financial position between two balance sheets
(iii) It shows the inflows and outflows of cash.	(iii) It reveals the sources and application of finds.
(iv) It is an important tool for short term analysis.	(iv) It helps to test whether working capital has been effectively used or not.
(v) The two significant areas of analysis are cash generating efficiency and free cash flow.	

Question 2

The following are the Balance Sheets of Gama Limited for the year ending March 31, 2004 and March 31, 2005:

Balance Sheet
as on March, 31

	2004 ₹	*2005* ₹
Capital and Liabilities		
Share Capital	*6,75,000*	*7,87,500*
General Reserves	*2,25,000*	*2,81,250*
Capital Reserve (Profit on Sale of investment)	*-*	*11,250*
Profit & Loss Account	*1,12,500*	*2,25,000*

15% Debentures	*3,37,500*	*2,25,000*
Accrued Expenses	*11,250*	*13,500*
Creditors	*1,80,000*	*2,81,250*
Provision for Dividends	*33,750*	*38,250*
Provision for Taxation	*78,750*	*85,500*
Total	*16,53,750*	*19,48,500*
Assets		
Fixed Assets	*11,25,000*	*13,50,000*
Less: Accumulated depreciation	*2,25,000*	*2,81,250*
Net Fixed Assets	*9,00,000*	*10,68,750*
Long-term Investments (at cost)	*2,02,500*	*2,02,500*
Stock (at cost)	*2,25,000*	*3,03,750*
Debtors (net of provision for doubtful debts of ₹ 45,000 and ₹ 56,250 respectively for 2004 and 2005 respectively)	*2,53,125*	*2,75,625*
Bills receivables	*45,000*	*73,125*
Prepaid Expenses	*11,250*	*13,500*
Miscellaneous Expenditure	*16,875*	*11,250*
	16,53,750	*19,48,500*

Additional Information:

(i) During the year 2004-05, fixed assets with a net book value of ₹ 11,250 (accumulated depreciation, ₹ 33,750) was sold for ₹ 9,000.

(ii) During the year 2004-05, Investments costing ₹ 90,000 were sold, and also Investments costing ₹ 90,000 were purchased.

(iii) Debentures were retired at a Premium of 10%.

(iv) Tax of ₹ 61,875 was paid for 2003-04.

(v) During the year 2004-05, bad debts of ₹ 15,750 were written off against the provision for Doubtful Debt account.

(vi) The proposed dividend for 2003-04 was paid in 2004-05.

Required:

Prepare a Funds Flow Statement (Statement of changes in Financial Position on working capital basis) for the year ended March 31, 2005.

Answer

Computation of Funds from Operation

	₹
Profit and loss balance on March 31, 2005	2,25,000
Add: Depreciation	90,000
Loss on Sale of Asset	2,250
Misc. Expenditure written off	5,625
Transfer to Reserves	56,250
Premium on Redemption of debentures	11,250
Provision for Dividend	38,250
Provision for Taxation	68,625
	4,97,250
Less: P/L balance on March 31, 2004	1,12,500
Funds from operations	3,84,750

Accumulated Depreciation A/c

To Fixed Asset A/c	33,750	By Bal. b/d	2,25,000
		By P/L A/c	90,000
To Bal. c/d	2,81,250	(Pro (Prov. for dep.) (Bal. Fig.)	
	3,15,000		3,15,000

Fixed Assets A/c

To Bal. b/d	11,25,000	By Accumulated Depreciation A/c	33,750
		By Cash	9,000
To Bank (Purchase of Fixed Asset) (Bal. fig.)	2,70,000	By P/L (Loss on sale)	2,250
		By Bal. c/d	13,50,000
	13,95,000		13,95,000

Provision for Tax A/c

To Cash (tax paid)	61,875	By Bal. b/d	78,750
		By P/L A/c (Prov.)	
To Bal. c/d	85,500	(Bal. fig.)	68,625
	1,47,375		1,47,375

Statement of Changes in Working Capital

	March 31, 2004	March 31, 2005	Change in W/C	
Current Assets				
Stock	2,25,000	3,03,750	78,750	
Debtors	2,53,125	2,75,625	22,500	
Bills Receivables	45,000	73,125	28,125	
Prepaid Expenses	11,250	13,500	2,250	
	5,34,375	6,66,000	1,31,625	-
Less: Current liabilities				
Accrued Expenses	11,250	13,500	-	2,250
Creditors	1,80,000	2,81,250	-	1,01,250
	1,91,250	2,94,750	1,31,625	1,03,500
Working Capital	3,43,125	3,71,250	-	-
Increase in Working Capital	28,125	-		28,125
	3,71,250	3,71,250	1,31,625	1,31,625

Funds Flow Statement for the year ended March 31, 2005

Sources		₹
	Working Capital from Operations	3,84,750
	Sale of Fixed Assets	9,000
	Sale of Investments	1,01,250
	Share Capital Issued	1,12,500
	Total Funds Provided (A)	₹6,07,500
Uses		₹
	Purchase of Fixed Assets	2,70,000
	Purchase of Investments	90,000
	Payment of Debentures (at a premium of 10%)	1,23,750
	Payment of Dividends	33,750
	Payment of Taxes	61,875
	Total Funds Applied (B)	5,79,375
	Increase in Working Capital (A-B)	₹28,125

Question 3

Following are the financial statements of Zed Ltd.:

Balance Sheet as on

	March 31, 2007	March 31, 2006
	₹	₹
Capital and Liabilities:		
Share capital, ₹10 par value	1,67,500	1,50,000
Share premium	3,35,000	2,37,500
Reserves and Surplus	1,74,300	1,23,250
Debentures	2,40,000	–
Long-term loans	40,000	50,000
Creditors	28,800	27,100
Bank Overdraft	7,500	6,250
Accrued expenses	4,350	4,600
Income-tax payable	48,250	16,850
	10,45,700	6,15,550

	March 31, 2007	March 31, 2006
	₹	₹
Assets:		
Land	3,600	3,600
Building, net of depreciation	6,01,800	1,78,400
Machinery, net of depreciation	1,10,850	1,07,050
Investment in 'A' Ltd.	75,000	–
Stock	58,800	46,150
Prepaid expenses	1,900	2,300
Debtors	76,350	77,150
Trade Investments	40,000	1,05,000
Cash	77,400	95,900
	10,45,700	6,15,550

Income Statement

for the year ended March 31, 2007

	₹
Net Sales	*13,50,000*
Less: Cost of goods sold and operating expenses (including depreciation on buildings of ₹6,600 and depreciation on machinery of ₹11,400)	*12,58,950*
Net operating profit	*91,050*
Gain on sale of trade investments	*6,400*
Gain on sale of machinery	*1,850*
Profits before tax	*99,300*
Income-tax	*48,250*
Profits after tax	*51,050*

Additional information:

(i) Machinery with a net book value of ₹9,150 was sold during the year.

(ii) The shares of 'A' Ltd. were acquired by issue of debentures.

Required:

Prepare a Funds Flow Statement (Statement of changes in Financial position on Working capital basis) for the year ended March 31, 2007.

Answer

Schedule of Changes in Working Capital

	March 31, 2007	*March 31, 2006*	*Impact on Working Capital*	
			Increase	*Decrease*
Current Assets				
Stock	58,800	46,150	12,650	–
Prepaid expenses	1,900	2,300	–	400
Debtors	76,350	77,150	–	800
Trade Investments	40,000	1,05,000	–	65,000
Cash	77,400	95,900	–	18,500
	2,54,450	3,26,500	12,650	84,700

Current Liabilities				
Creditors	28,800	27,100	–	1,700
Bank overdraft	7,500	6,250	–	1,250
Accrued expenses	4,350	4,600	250	–
Income tax payable	48,250	16,850	–	31,400
	88,900	54,800	250	34,350
Net Working Capital	1,65,550	2,71,700	12,900	1,19,050
Decrease in net working capital	1,06,150	–	1,06,150	–
	2,71,700	2,71,700	1,19,050	1,19,050

Machinery Account

	₹		₹
Balance b/d	1,07,050	Bank A/c (Sale)	11,000
Purchase of machinery (plug)	24,350	Depreciation (given)	11,400
P & L A/c (Profit)	1,850	Balance c/d	1,10,850
	1,33,250		1,33,250

Trade Investments Account

	₹		₹
Balance b/d	1,05,000	Cash (sale of trade investments)	65,000
		Balance c/d	40,000
	1,05,000		1,05,000

Estimation of Funds flow from Operations

		₹
Profits after tax		51,050
Add: Depreciation on Buildings	6,600	
Depreciation on Machinery	11,400	18,000
		69,050
Less: Gain on sale of machinery		1,850
Funds from Operations		67,200

Gain on sale of trade investments has been considered as an operating income. Trade investments have been considered as part of current assets.

Statement of Changes in Financial Position (Working Capital basis)

for the year ended March 31, 2007

	₹
Sources:	
Funds from operations	67,200
Sale of machinery on gain (9,150 + 1,850)	11,000
Debentures issued (₹2,40,000 – 75,000)	1,65,000
Investment in 'A' Ltd. financial transaction and hence not affecting working capital	
Issue of share capital (including share premium)	1,15,000
Financial Resources Provided	3,58,200
Uses:	
Purchase of building (6,01,800 + 6,600 – 1,78,400)	4,30,000
Purchase of machinery	24,350
Payment of long-term loan	10,000
Financial Resources Applied	4,64,350
Net Decrease in Working Capital	1,06,150

Question 4

Balance Sheet of OP Ltd. as on 31st March, 2007 and 2008 are as follows:

Liabilities	*Amount 31.3.2007 ₹*	*Amount 31.3.2008 ₹*	*Assets*	*Amount 31.3.2007 ₹*	*Amount 31.3.2008 ₹*
Share capital	*20,00,000*	*20,00,000*	*Land and Building*	*15,00,000*	*14,00,000*
General Reserve	*4,00,000*	*4,50,000*	*Plant and Machinery*	*18,00,000*	*17,50,000*
Profit and Loss A/c	*2,50,000*	*3,60,000*	*Investment*	*4,00,000*	*3,72,000*
10% Debentures	*10,00,000*	*8,00,000*	*Stock*	*4,80,000*	*8,50,000*
Bank Loan (long-term)	*5,00,000*	*6,00,000*	*Debtors*	*6,00,000*	*7,98,000*
Creditors	*4,00,000*	*5,80,000*	*Prepaid Expenses*	*50,000*	*40,000*
Outstanding Expenses	*20,000*	*25,000*	*Cash and Bank*	*1,40,000*	*85,000*
Proposed Dividend	*3,00,000*	*3,60,000*			
Provision for taxation	*1,00,000*	*1,20,000*			
	49,70,000	*52,95,000*		*49,70,000*	*52,95,000*

Additional information:

(i) *New machinery for ₹ 3,00,000 was purchased but an old machinery costing ₹ 1,45,000 was sold for ₹ 50,000 and accumulated depreciation thereon was ₹ 75,000.*

(ii) *10% debentures were redeemed at 20% premium.*

(iii) *Investment were sold for ₹ 45,000, and its profit was transferred to general reserve.*

(iv) *Income-tax paid during the year 2007-08 was ₹ 80,000.*

(v) *An interim dividend of ₹ 1,20,000 has been paid during the year 2007-08.*

(vi) *Assume the provision for taxation as current liability and proposed dividend as non-current liability.*

(vii) *Investment are non-trade investment.*

You are required to prepare:

(i) *Schedule of changes in working capital.*

(ii) *Funds flow statement.*

Answer

(i) Schedule of Changes in Working Capital

	Particulars	**31st March**		**Working Capital**	
		2007 ₹	*2008* ₹	*Increase* ₹	*Decrease* ₹
A.	**Current Assets:**				
	Stock	4,80,000	8,50,000	3,70,000	–
	Debtors	6,00,000	7,98,000	1,98,000	–
	Prepaid Expenses	50,000	40,000	–	10,000
	Cash and Bank	1,40,000	85,000	–	55,000
	Total (A)	12,70,000	17,73,000		
B.	**Current Liabilities:**				
	Creditors	4,00,000	5,80,000	–	1,80,000
	Outstanding Expenses	20,000	25,000	–	5,000
	Provision for Taxation	1,00,000	1,20,000	–	20,000
	Total (B)	5,20,000	7,25,000		
	Working Capital (A – B)	7,50,000	10,48,000	5,68,000	2,70,000
	Increase in Working Capital	2,98,000			2,98,000
	Total	10,48,000	10,48,000	5,68,000	5,68,000

(ii) **Funds Flow Statement**

for the year ending 31st March, 2008

Sources of Funds	Amount ₹₹	Application of Funds	Amount ₹
Funds from operations	10,63,000	Redemption of debentures	2,40,000
Bank loan taken	1,00,000	Purchase of machinery	3,00,000
Sale of Machinery	50,000	Dividend paid	3,00,000
Sale of Investment	45,000	Interim Dividend paid	1,20,000
		Increase in working capital	2,98,000
	12,58,000		12,58,000

Workings:

1. **Funds from operations:**

Adjusted Profit and Loss A/c

	₹	₹		₹
To General Reserve		33,000	By Balance b/d	2,50,000
To Depreciation On Land and Building	1,00,000		By Funds from operations	10,63,000
On Plant & Machinery	2,80,000	3,80,000	(Balancing figure)	
To Loss on Sale of Machine		20,000		
To Premium on Redemption of Debentures		40,000		
To Proposed Dividend		3,60,000		
To Interim Dividend		1,20,000		
To Balance c/d		3,60,000		
		13,13,000		13,13,000

2. **Depreciation on Land and Building** = ₹15,00,000 – ₹14,00,000

= ₹1,00,000.

3. **Loss on Sale of Old Machine** = Cost ₹1,45,000 – ₹75,000 (Cum-Dep.) – ₹ 50,000 (Sales value) = ₹20,000

4. **Depreciation on Plant and Machinery:**

Plant and Machinery A/c

Dr. Cr.

	₹		₹
To Balance b/d	18,00,000	By Bank A/c (Sold)	50,000
To Bank A/c (Purchases)	3,00,000	By Profit and Loss A/c (Loss on Sales)	20,000
		By Depreciation (Balancing figure)	2,80,000
		By Balance c/d	17,50,000
	21,00,000		21,00,000

5. **Premium on Redemption of Debentures:**

Amount of Debenture Redeemed = ₹10,00,000 – ₹8,00,000

= ₹2,00,000

Premium = ₹2,00,000 × 20/100 = ₹40,000

6. **Profit on sale of investment:**

Investment A/c

Dr. *Cr.*

	₹		₹
To Balance b/d	4,00,000	By Bank A/c (Sales)	45,000
To General Reserve (Profit on Sales)	17,000	By Balance c/d	3,72,000
	4,17,000		4,17,000

7. **Amount transferred to General Reserve from Profit and Loss A/c:**

General Reserve A/c

Dr. *Cr.*

	₹		₹
To Balance c/d	4,50,000	By Balance b/d	4,00,000
		By Investment A/c	17,000
		By Profit and Loss A/c	33,000
	4,50,000		4,50,000

Question 5

XYZ Ltd. Company's Comparative Balance Sheet for 2002 and the Company's Income Statement for the year are as follows:

XYZ Ltd.
Comparative Balance Sheet
December 31, 2002 and 2001

(₹ in crores)			2002			2001
Sources of funds:						
Shareholder's funds						
Share Capital		140		140		
Retained earnings		110	250	92		232
Loan funds						40
Bonus payable			135			272
			385			
Application of funds						
Fixed Assets						
Plant and Equipment	430			309		
Less: Accumulated depreciation	(218)		212	(194)		115
Investments			60			75
Current Assets						
Inventory	205			160		
Accounts receivable	180			270		
Pre-paid expenses	17			20		
Cash	26	428		10	460	
Less : Current liabilities and provisions						
Accounts payable	230			310		
Accrued liabilities	70			60		
Deferred income-tax provision	15	315	113	8	378	82
			385			272

XYZ Ltd.
Income Statement
For the year ended December 31, 2002

(₹ in crores)

Sales	*₹ 1,000*
Less : Cost of goods sold	*530*
Gross margin	*470*
Less : Operating expenses	*352*
Net operating income	*118*
Non-operating items:	
Loss on sale of equipment	*(4)*
Income before taxes	*114*
Less : Income-taxes	*48*
Net income	*66*

Additional information:

(i) Dividends of ₹ 48 crores were paid in 2002.

(ii) The loss on sale of equipment of ₹ 4 crore reflects a transaction in which equipment with an original cost of ₹ 12 crore and accumulated depreciation of ₹ 5 crore were sold for ₹ 3 crore in cash.

Required:

Using the indirect method, determine the net cash provided by operating activities for 2002 and construct a statement of cash flows.

Answer

Statement of net cash flows provided by operating activities by using indirect method for the year ended December 31, 2002

	(₹ in crores)
Operating Activities	
Net Income	66
Adjustment to convert net income to a cash basis	
Depreciation and amortization charges	29
Decrease in accounts receivable	90

Increase in inventory	(45)
Decrease in pre-paid expenses	3
Decrease in accounts payable	(80)
Increase in accrued liabilities	10
Increase in deferred income tax	7
Loss on sale of equipment	4
Net cash provided by operating activities	84
Cash Flow from Investing Activities	
Additions to property, building & equipment	(133)
Decrease in long term investments	15
Proceeds from sale of equipment	3
Net cash used in investing activities	(115)
Cash Flows from Financing Activities	
Increase in bonds payable	95
Cash dividends paid	(48)
Net cash used in financing activities	47
Net increase in cash & cash equivalents	16
Cash & cash equivalents at the beginning of year	10
Cash & cash equivalents at the end of year	26

Question 6

The following is the income statement XYZ Company for the year 2004:

		(₹)
Sales		*1,62,700*
Add.: Equity In ABC Company's earning		*6,000*
		1,68,700
Expenses	*₹*	
Cost of goods sold	*89,300*	
Salaries	*34,400*	
Depreciation	*7,450*	
Insurance	*500*	
Research and development	*1,250*	

Patent amortisation		900	
Interest		10,650	
Bad debts		2,050	
Income tax:			
Current	6,600		
Deferred	1,550	8,150	
Total expenses			1,54,650
Net income			14,050

Additional information's are:

(i) 70% of gross revenue from sales were on credit.

(ii) Merchandise purchases amounting to ₹92,000 were on credit.

(iii) Salaries payable totaled ₹1,600 at the end of the year.

(iv) Amortisation of premium on bonds payable was ₹1,350.

(v) No dividends were received from the other company.

(vi) XYZ Company declared cash dividend of ₹4,000.

(vii) Changes in Current Assets and Current Liabilities were as follows:

	Increase (Decrease) ₹
Cash	500
Marketable securities	1,600
Accounts receivable	(7,150)
Allowance for bad debt	(1,900)
Inventory	2,700
Prepaid insurance	700
Accounts payable (for merchandise)	5,650
Salaries payable	(2,050)
Dividends payable	(3,000)

Prepare a statement showing the amount of cash flow from operations.)

Answer

Statement showing cash flow from Operations

	₹	₹
Cash flow from operations		
Cash sales (30% × 1,62,700)	48,810	
Collection from debtors	1,20,890	
Total cash from operations		1,69,700
Uses of cash from operations		
Payment to suppliers	86,350	
Salaries expense	36,450	
Payment for insurance	1,200	
Research and development	1,250	
Interest payment	12,000	
Income tax payment	6,600	
Total operating cash payment		1,43,850
Net cash flow from operations		25,850

Notes

(1)

Collection from debtors	₹
Credit sales (70% × 1,62,700)	1,13,890
Less : Bad debts (2,050 less 1,900)	150
	1,13,740
Add : decrease in accounts receivables	7,150
Collection from debtors on credit sales	1,20,890

(2) Dividends earned ₹6,000 on equity of ABC Company has not been considered as it has not been received in cash.

(3) Payment to suppliers

Cost of goods sold	₹89,300
Add: Increase in inventory	2,700
Purchases	92,000

	Less: increase in accounts payable	5,650
	Payment to suppliers	86,350
(4)	Calculation of salaries payment	
	Salary expense	₹34,400
	Add : decrease in salary payable	2,050
	Payment of salaries	₹36,450
(5)	Insurance payments	
	Insurance	₹500
	Add : increase in prepaid insurance	700
	Payment for insurance	₹1,200
(6)	Interest payment	
	Interest expenses	₹10,650
	Add : Amortisation of bond premium	1,350
	Interest payments	₹12,000
(7)	Income tax payments	
	Income tax expense	₹8,150
	Less: deferred tax	1,550
		₹6,600
	Changes in current tax payable	Nil
	Income tax payments	₹6,600

Question 7

From the information contained in Income Statement and Balance Sheet of 'A' Ltd., prepare Cash Flow Statement:

Income Statement for the year ended March 31, 2006

		₹
Net Sales	*(A)*	*2,52,00,000*
Less:		
Cash Cost of Sales		*1,98,00,000*
Depreciation		*6,00,000*
Salaries and Wages		*24,00,000*
Operating Expenses		*8,00,000*
Provision for Taxation		*8,80,000*
	(B)	*2,44,80,000*

Net Operating Profit (A – B)		7,20,000
Non-recurring Income – Profits on sale of equipment		1,20,000
		8,40,000
Retained earnings and profits brought forward		15,18,000
		23,58,000
Dividends declared and paid during the year		7,20,000
Profit and Loss Account balance as on March 31, 2006		16,38,000

Balance Sheet as on

Assets	March 31, 2005 (₹)	March 31, 2006 (₹)
Fixed Assets:		
Land	4,80,000	9,60,000
Buildings and Equipment	36,00,000	57,60,000
Current Assets:		
Cash	6,00,000	7,20,000
Debtors	16,80,000	18,60,000
Stock	26,40,000	9,60,000
Advances	78,000	90,000
	90,78,000	1,03,50,000

Balance Sheet as on

Liabilities and Equity	March 31, 2005 (₹)	March 31, 2006 (₹)
Share Capital	36,00,000	44,40,000
Surplus in Profit and Loss Account	15,18,000	16,38,000
Sundry Creditors	24,00,000	23,40,000
Outstanding Expenses	2,40,000	4,80,000
Income-tax payable	1,20,000	1,32,000
Accumulated Depreciation		
on Buildings and Equipment	12,00,000	13,20,000
	90,78,000	1,03,50,000

The original cost of equipment sold during the year 2005-06 was ₹ 7,20,000.

Answer

Cash Flow Statement of Company A Ltd.
for the year ending March 31, 2006
Cash flows from Operating Activities

	₹
Net Profits before Tax and Extra-ordinary Item	16,00,000
Add: Depreciation	6,00,000
Operating Profits before Working Capital Changes	22,00,000
Increase in Debtors	(1,80,000)
Decrease in Stock	16,80,000
Increase in Advances	(12,000)
Decrease in Sundry Creditors	(60,000)
Increase in Outstanding Expenses	2,40,000
Cash Generated from Operations	38,68,000
Income tax Paid	8,68,000
Net Cash from Operations	30,00,000

Cash flows from Investment Activities

	₹
Purchase of Land	(4,80,000)
Purchase of Buildings and Equipment	(28,80,000)
Sale of Equipment	3,60,000
Net Cash used in Investment Activities	(30,00,000)

Cash flows from Financing Activities

		₹
Issue of Share Capital	8,40,000	
Dividends Paid	(7,20,000)	
Net Cash from Financing Activities		1,20,000
Net increase in Cash and Cash Equivalents		1,20,000
Cash and Cash Equivalents at the beginning		6,00,000
Cash and Cash Equivalents at the end		7,20,000

Buildings and Equipment Account

	₹		₹
Balance b/d	36,00,000	Sale of Asset	7,20,000
Cash/Bank (purchase) (Balancing figure)	28,80,000	Balance c/d	57,60,000
	64,80,000		64,80,000

Accumulated Depreciation on
Buildings and Equipment Account

	₹		₹
Sale of Asset		Balance b/d	12,00,000
(Accumulated depreciation)	4,80,000	Profit and Loss (Provisional)	6,00,000
Balance c/d	13,20,000		
	18,00,000		18,00,000

Sale of Asset Account

	₹
Original Cost	7,20,000
Less: Accumulated Depreciation	4,80,000
Net Cost	2,40,000
Profit on Sale of Asset	1,20,000
Sale Proceeds from Asset Sales	3,60,000

Income Tax Payable Account

Particulars	₹	Particulars	₹
Bank A/c (b.f.)	8,68,000	Balance b/d	1,20,000
Balance c/d	1,32,000	Provision for Tax A/c	8,80,000
	10,00,000		10,00,000

Question 8

X Ltd. has the following balances as on 1st April 2007:

	₹
Fixed Assets	*11,40,000*

Less; Depreciation	*3,99,000*
	7,41,000
Stocks and Debtors	*4,75,000*
Bank Balance	*66,500*
Creditors	*1,14,000*
Bills payable	*76,000*
Capital (Shares of ₹100 each)	*5,70,000*

The Company made the following estimates for financial year 2007-08:

(i) The company will pay a free of tax dividend of 10% the rate of tax being 25%.

(ii) The company will acquire fixed assets costing ₹ 1,90,000 after selling one machine for ₹ 38,000 costing ₹ 95,000 and on which depreciation provided amounted to ₹66,500.

(iii) Stocks and Debtors, Creditors and Bills payables at the end of financial year are expected to be ₹ 5,60,500, ₹ 1,48,200 and ₹ 98,800 respectively.

(iv) The profit would be ₹ 1,04,500 after depreciation of ₹ 1,14,000.

Prepare the projected cash flow statement and ascertain the bank balance of X Ltd. at the end of Financial year 2007-08.

Answer

Working:

(i) Cash Flow from operations

	₹
Profit for the year	1,04,500
Add: Depreciation (non cash item)	1,14,000
	2,18,500
Less: Profit on sale of machine	9,500
	2,09,000
Add increase in:	
Creditors (₹1,48,200 – ₹1,14,000) = ₹34,200	
Bills payable (₹98,800 – ₹76,000) = ₹22,800	57,000
	2,66,000
Less: Increase in stocks & debtors (₹5,60,500 – ₹4,75,000)	85,500
Cash from operations	1,80,500

(ii) Payment of Dividend

10% on capital ₹5,70,000 = ₹57,000

Gross up Amount = $\left(\frac{₹\ 57{,}000}{75} \times 100\right) = ₹\ 76{,}000$

Total Dividend ₹ 76,000

Tax 25% ₹ 19,000

Payment of Dividend ₹ 57,000

Note: Income Tax on Company's Profit ignored .

Projected Cash Flow Statement

for the Year ending on 31st March, 2008

		₹
Bank Balance as on 1st April, 2007		66,500
Add: Inflow of Cash		
Sale of Machine	₹38,000	
Cash From operation	₹1,80,500	2,18,500
Less: Outflow of Cash		2,85,000
Purchase of Fixed Assets	₹1,90,000	
Payment of Dividend	₹57,000	
Tax Paid	₹19,000	2,66,000
Bank Balance on 31st March, 2008		19,000

Question 9

The following are the summarised Balance Sheet of XYZ Ltd. as on 31st March, 2008 and 2009:

					(₹ in 000')
Liabilities	*31.3.08*	*31.3.09*	*Assets*	*31.3.08*	*31.3.09*
Share capital	*3,900*	*5,200*	*Plant & machinery*	*3,978*	*5,525*
Reserve and surplus	*1,690*	*2,600*	*Land & building*	*1,040*	*1,040*
12% debenture	*-*	*1,300*	*Investment*	*130*	*130*
Sundry creditors	*936*	*1,222*	*Inventories*	*676*	*975*
Outstanding rent	*52*	*65*	*Sundry debtors*	*728*	*1,131*

Income-tax payable	*520*	*195*	*Prepaid selling expenses*	*26*	*52*
			Cash at bank	*494*	*1,677*
			Cash in hand	*26*	*52*
	7,098	*10,582*		*7,098*	*10,582*

Profit & Loss account for the year ended 31st March, 2009

			(₹in 000')
	₹		*₹*
To Opening stock	*806*	*By Sales*	*6,331*
To Purchases	*2,080*	*By Closing stock*	*1,105*
To Wages	*650*		
To Gross profit C/d	*3,900*		
	7,436		*7,436*
To Depreciation	*390*	*By Gross profit B/d*	*3,900*
To Office expenses	*390*	*By Discount*	*39*
To Rent	*130*	*By Commission*	*91*
To Selling & distribution expenses	*780*	*By Dividend*	*260*
To Income – tax	*1,040*		
To Net profit C/d	*1,560*		
	4,290		*4,290*
To Dividend	*650*	*By Balance B/d*	*1,690*
To Balance C/d	*2,600*	*By Net profit B/d*	*1,560*
	3,250		*3,250*

You are required to prepare a Cash flow statement as per AS-3 (revised).

Answer

Cash Flow Statement for the year ending 31st March, 2009

[as per AS 3 (revised)]

			(₹ in '000')
(A)	**Cash flow from Operating Activities**		
	Cash from Sales	5,928	
	Commission Received	91	
			6,019
	Cash Payments		
	Cash Purchases	1,755	

	Wages	650	
	Office Expenses	390	
	Rent	117	
	Selling and Distribution Expenses	806	
			3,718
			2,301
	Less : Tax paid		1,365
	Cash flow from Operating Activities (a)		936
(B)	**Cash flow from Investing Activities**		
	Purchase of Plant & Machinery (5525+390-3978)	(1,937)	
	Dividend Received	260	
	Net Cash used in Investing Activities (b)		(1,677)
(C)	**Cash flow from Financing Activities**		
	Issue of Shares	1,300	
	Issue of 12% Debentures	1,300	
	Dividend Paid	(650)	
	Net Cash flow from Financing Activities (c)		1,950
	Net Increase in Cash and Cash Equivalents during the year (a+b+c)		1,209
	Add: Cash and Cash Equivalents at 1-4-2008 (26+494)		520
	Cash and Cash Equivalents at 31-3-2009		1,729

Working Notes:

1. **Cash Sales**

   Cash Sales = Total Sales – Increase in Debtors

   = 6,331 – (1,131 – 728)

   = 6,331 – 403 = ₹5,928

2. **Cash Purchases**

   Cash Purchases = Total Purchases – Increase in Creditors

   = 2,080 – (1,222+39 – 936)

   = 2,080 – 325= ₹1,755

3. **Rent**

	₹
Rent	130

Add: Rent Outstanding as on 31-3-2008	52
	182
Less: Rent Outstanding as on 31-3-2009	65
	117

4. Tax Payable

Tax Payable A/c

	₹		₹
To Tax paid	1,365	By Balance b/d	520
To Balance c/d	195	By Profit and Loss A/c	1,040
	1,560		1,560

5. Selling and Distribution Expenses

	₹
Selling and Distribution Expenses	780
Add: Prepaid Selling Expenses on 31-3-2009	52
	832
Less: Prepaid Selling Expenses on 31-3-2008	26
	806

Question 10

The following are the Balance Sheet of Peacock Limited as on 31st March, 2009 and 31st March, 2010.

Liabilities	*Rupees 31st March, 2009*	*Rupees 31st March, 2010*
Share capital	*44,00,000*	*66,00,000*
Reserves and Surplus	*27,50,000*	*38,50,000*
Depreciation	*8,80,000*	*13,20,000*
Bank Loan	*17,60,000*	*8,80,000*
Sundry Creditors	*13,20,000*	*14,85,000*
Proposed dividend	*4,00,000*	*6,00,000*
Provision for taxation	*4,00,000*	*5,50,000*
	1,19,10,000	*1,52,85,000*
Assets		
Land	*33,00,000*	*44,00,000*

Plant and Machinery	*50,60,000*	*69,30,000*
Inventories	*19,80,000*	*22,00,000*
Sundry Debtors	*11,00,000*	*17,05,000*
Cash and Bank Balances	*4,70,000*	*50,000*
	1,19,10,000	*1,52,85,000*

Additional Information :

(a) The machine which was purchased earlier for ₹ 6,00,000 was sold during the financial year 2009-2010 for ₹ 40,000. The book value of the machine was ₹ 60,000. A new machinery was purchased during the financial year.

(b) The company had issued new shares to the extent of ₹22,00,000.

You are required to prepare:

1. Statement showing changes in the Working Capital;

2. Statement of Sources and Application of funds.

Answer

(1) Statement Showing Changes in Working Capital

	31st March, 2009	*31st March, 2010*	*Increase*	*Decrease*
Current Assets				
Inventories	19,80,000	22,00,000	2,20,000	-
Sundry Debtors	11,00,000	17,05,000	6,05,000	-
Cash and Bank Balances	4,70,000	50,000	-	4,20,000
	35,50,000	39,55,000		
Current Liabilities				
Sundry Creditors	13,20,000	14,85,000	-	1,65,000
Provision for Taxation	4,00,000	5,50,000	-	1,50,000
	17,20,000	20,35,000		
Working Capital	18,30,000	19,20,000		
Net Increase in Working Capital	90,000	-	-	90,000
	19,20,000	19,20,000	8,25,000	8,25,000

(2) Sources and Application of Funds

Sources	*Amount (₹)*	*Application*	*Amount (₹)*
Issue of Shares	22,00,000	Payment of Dividend	4,00,000
Funds from	27,00,000	Bank Loan Repaid	8,80,000

Operation			
Sale of Machinery	40,000	Purchase of Land	11,00,000
		Purchase of Machinery	24,70,000
		Net Increase in Working Capital	90,000
	49,40,000		49,40,000

Working Notes:

Reserves and Surplus A/c

	Dr		*Cr*
To Depreciation	9,80,000	By Balance b/f	27,50,000
To Proposed Dividend	6,00,000	By Profit & Loss A/c	27,00,000
To Loss on Sale of Machinery	20,000		
To Balance C/d	38,50,000		
	54,50,000		54,50,000

Provision for Depreciation A/c

	Dr		*Cr.*
To Machinery A/c	5,40,000	By Balance b/f	8,80,000
To Balance C/d	13,20,000	By Profit & Loss A/c	9,80,000
	18,60,000		18,60,000

Machinery A/c

	Dr.		*Cr.*
To Balance b/f	50,60,000	By Depreciation A/c	5,40,000
To Bank	24,70,000	By Cash	40,000
		By Loss on Sale of Machinery	20,000
		By Balance c/d	69,30,000
	75,30,000		75,30,000

Question 11

The Balance Sheet of JK Limited as on 31st March, 2005 and 31st March, 2006 are given below:

Balance Sheet as on *(₹'000)*

Liabilities	*31.03.05*	*31.03.06*	*Assets*	*31.03.05*	*31.03.06*
Share Capital	*1,440*	*1,920*	*Fixed Assets*	*3,840*	*4,560*
Capital Reserve	*–*	*48*	*Less: Depreciation*	*1,104*	*1,392*
General Reserve	*816*	*960*		*2,736*	*3,168*
Profit and Loss Account	*288*	*360*	*Investment*	*480*	*384*
9% Debenture	*960*	*672*	*Cash*	*210*	*312*
Current Liabilities	*576*	*624*	*Other Current Assets*		
Proposed Dividend	*144*	*174*	*(including Stock)*	*1,134*	*1,272*
Provision for Tax	*432*	*408*	*Preliminary Expenses*	*96*	*48*
Unpaid Dividend	*–*	*18*			
	4,656	*5,184*		*4,656*	*5,184*

Additional Information:

(i) *During the year 2005-2006, Fixed Assets with a book value of ₹ 2,40,000 (accumulated depreciation ₹ 84,000) was sold for ₹1,20,000.*

(ii) *Provided ₹4,20,000 as depreciation.*

(iii) *Some investments are sold at a profit of ₹ 48,000 and Profit was credited to Capital Reserve.*

(iv) *It decided that stocks be valued at cost, whereas previously the practice was to value stock at cost less 10 per cent. The stock was ₹ 2,59,200 as on 31.03.05. The stock as on 31.03.06 was correctly valued at ₹ 3,60,000.*

(v) *It decided to write off Fixed Assets costing ₹ 60,000 on which depreciation amounting to ₹ 48,000 has been provided.*

(vi) *Debentures are redeemed at ₹ 105.*

Required:

Prepare a Cash Flow Statement.

Answer

Cash flow Statement (31st March, 2006)

(A) Cashflows from Operating Activities

	₹		₹
Profit and Loss A/c (3,60,000 – (2,88,000 + 28,800)			43,200

Adjustments:			
Increase in General Reserve	1,44,000		
Depreciation	4,20,000		
Provision for Tax	4,08,000		
Loss on Sale of Machine	36,000		
Premium on Redemption of Debenture	14,400		
Proposed Dividend	1,74,000		
Preliminary Exp. w/o	48,000		
Fixed Assets w/o	12,000		12,56,400
Funds from Operation			12,99,600
Increase in Sundry Current Liabilities			48,000
Increase in Current Assets			
12,72,000 – (11,34,000 + 28,800)			(1,09,200)
Cash before Tax			12,38,400
Tax paid			4,32,000
Cash from Operating Activities			8,06,400

(B) Cash from Investing Activities

Purchases of fixed assets	(10,20,000)	
Sale of Investment	1,44,000	
Sale of Fixed Assets	1,20,000	(7,56,000)

(C) Cash from Financing Activities

Issue of Share Capital	4,80,000	
Redemption of Debenture	(3,02,400)	
Dividend paid	(1,26,000)	51,600
Net increase in Cash and Cash equivalents		1,02,000
Opening Cash and Cash equivalents		2,10,000
Closing Cash		3,12,000

Fixed Assets Account

	Particulars	₹		*Particulars*	₹
To	Balance b/d	27,36,000	By	Cash	1,20,000

To	Purchases (Balance)	10,20,000	By	Loss on sales	36,000
			By	Depreciation	4,20,000
			By	Assets w/o	12,000
			By	Balance	31,68,000
		37,56,000			37,56,000

Depreciation Account

	Particulars	₹		*Particulars*	₹
To	Fixed Assets (on sales)	84,000	By	Balance b/d	11,04,000
To	Fixed Assets w/o	48,000	By	Profit and Loss a/c	4,20,000
To	Balance	13,92,000			
		15,24,000			15,24,000

Question 12

The Balance Sheet of X Ltd. as on 31st March, 2007 is as follows:

Liabilities	*₹ ('000)*	*Assets*		*₹ ('000)*
Equity share capital	*6,000*	*Fixed Assets (at cost)*	*16,250*	
8% Preference share capital	*3,250*	*Less: Depreciation written off*	*5,200*	*11,050*
Reserves and Surplus	*1,400*	*Stock*		*1,950*
10% Debentures	*1,950*	*Sundry debtors*		*2,600*
Sundry Creditors	*3,250*	*Cash*		*250*
Total	*15,850*			*15,850*

The following additional information is available:

(i) The stock turnover ratio based on cost of goods sold would be 6 times.

(ii) The cost of fixed assets to sales ratio would be 1.4.

(iii) Fixed assets costing ₹ 30,00,000 to be installed on 1st April, 2007, payment would be made on March 31, 2008.

(iv) In March, 2008, a dividend of 7 per cent on equity capital would be paid.

(v) ₹ 5,50,000, 11% Debentures would be issued on 1st April, 2007.

(vi) ₹ 30,00,000, Equity shares would be issued on 31st March, 2008.

(vii) Creditors would be 25% of materials consumed.

(viii) Debtors would be 10% of sales.

(ix) The cost of goods sold would be 90 per cent of sales including material 40 per cent and depreciation 5 per cent of sales.

(x) The profit is subject to debenture interest and taxation @ 30 per cent.

Required:

(i) Prepare the projected Balance Sheet as on 31st March, 2008.

(ii) Prepare projected Cash Flow Statement in accordance with AS-3.

Answer

(i) Calculation of Sales

Fixed assets ₹(1,62,50,000 + 30,00,000) = 1,92,50,000

$$\text{Sales} = \frac{1,92,50,000}{1.4} = 1,37,50,000$$

Cost of goods sold	= 1,37,50,000 × 0.90	=	1,23,75,000
Material	= 1,37,50,000 × 0.40	=	55,00,000
Depreciation	= 1,37,50,000 × 0.05	=	6,87,500
Net profit	= 1,37,50,000 × 0.10	=	13,75,000

Calculation of Net Fixed Assets

		₹
Opening balance		1,62,50,000
Add: Purchases		30,00,000
		1,92,50,000
Less: Accumulated Depreciation	52,00,000	
Additional Depreciation	6,87,500	58,87,500
Closing balance of fixed assets		1,33,62,500

Calculation of Closing Stock

$$\text{Average stock} = \frac{\text{Cost of goods sold}}{\text{Stock turnover ratio}}$$

$$= \frac{1,23,75,000}{6} = 20,62,500$$

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

$$20{,}62{,}500 = \frac{(19{,}50{,}000 + \text{Closing stock})}{2}$$

Closing stock = 41,25,000 – 19,50,000 =	21,75,000
Calculation of Debtors = 1,37,50,000 × 0.10 =	13,75,000
Calculation of Creditors = 55,00,000 × 0.25 =	13,75,000

Calculation of Interest and Provision for Taxation

Net profit	13,75,000
Less: Interest (19,50,000 × 10%)	2,55,500
(5,50,000 × 11%)	11,19,500
Less: Taxes	3,35,850
Net profit available for dividend	7,83,650
Less: Preference share dividend	2,60,000
Less: Equity dividend @ 7%	4,20,000
Transfer to reserves and surplus	1,03,650

Reserves and Surplus

Opening balance	14,00,000
Add: Current balance	1,03,650
	15,03,650

Projected Cash Flow Statement

(i) **Cash flow from Operating Activities**

Profit after taxation	7,83,650
Depreciation added back	6,87,500
	14,71,150
Add: Increase in current liabilities and decrease in current assets	
Provision for taxation	3,35,850
Debtors (26,00,000 – 13,75,000)	12,25,000

Less: Increase in current assets and decrease in current liabilities		
Stock (21,75,000 – 19,50,000)	(2,25,000)	
Creditors (13,75,000 – 32,50,000)	(18,75,000)	(21,00,000)
Net Cash from Operating Activities		9,32,000

(ii) **Cash flow from Investing Activities**

Purchase of Fixed Assets (30,00,000)

(iii) **Cash flow from Financing Activities**

Issue of Debenture	5,50,000	
Issue of equity share capital	30,00,000	
Dividend paid	(6,80,000)	28,70,000
Net increase in cash		8,02,000
Opening balance of cash		2,50,000
Closing balance		10,52,000

Projected Balance Sheet as on 31st March, 2008

Liabilities	*₹ ('000)*	*Assets*		*₹ ('000)*
Equity share capital	9,000	Fixed Assets (at cost)	19,250	
8% Preference share capital	3,250	Less: Depreciation		
Reserves & Surplus	1,503.65	written off	5,887.50	13,362.50
10% & 11% Debentures	2,500	Stock		2,175
Sundry Creditors	1,375	Sundry debtors		1,375
Provision for taxation	335.85	Cash		1,052
Total	17,964.50	Total		17,964.50

Question 13

The financial statement and operating results of PQR revealed the following position as on 31st March, 2006:

—	*Equity share capital (₹10 fully paid share)*	*₹ 20,00,000*
—	*Working capital*	*₹ 6,00,000*
—	*Bank overdraft*	*₹ 1,00,000*
—	*Current ratio*	*2.5 : 1*
—	*Liquidity ratio*	*1.5 : 1*

—	*Proprietary ratio (Net fixed assets/Proprietary fund)*	*0.75 : 1*
—	*Cost of sales*	*₹14,40,000*
—	*Debtors velocity*	*2 months*
—	*Stock turnover based on cost of sales*	*4 times*
—	*Gross profit ratio*	*20% of sales*
—	*Net profit ratio*	*15% of sales*

Closing stock was 25% higher than the opening stock. There were also free reserves brought forward from earlier years. Current assets include stock, debtors and cash only. The current liabilities expect bank overdraft treated as creditors.

Expenses include depreciation of ₹ 90,000.

The following information was collected from the records for the year ended 31st March, 2007:

- *Total sales for the year were 20% higher as compared to previous year.*
- *Balances as on 31st March, 2007 were : Stock ₹ 5,20,000, Creditors ₹ 4,15,000, Debtors ₹ 4,95,000 and Cash balance ₹ 3,10,000.*
- *Percentage of Gross profit on turnover has gone up from 20% to 25% and ratio of net profit to sales from 15% to 16%.*
- *A portions of Fixed assets was very old (book values ₹ 1,80,000) disposed for ₹ 90,000. (No depreciations to be provided on this item).*
- *Long-term investments were purchased for ₹ 2,96,600.*
- *Bank overdraft fully discharged.*
- *Percentage of depreciation to Fixed assets to be provided at the rate in the previous year.*

Required:

(i) Prepare Balance Sheet as on 31st March, 2006 and 31st March, 2007.

(ii) Prepare the fund flow statement for the year ended 31st March, 2007.

Answer

Balance Sheets

Liabilities	₹ 31 March 2006	₹ 31 March 2007	Assets	₹ 31 March 2006	₹ 31 March 2007
Equity share capital (₹10 each fully paid)	20,00,000	20,00,000	Fixed Assets (₹ 18,90,000– ₹ 90,000)	18,00,000	15,39,000
Reserve and Surplus	1,30,000	1,30,000	Long term investment	–	2,96,600

(balancing)					
Profit & Loss A/c (15% of sales)	2,70,000	6,15,600	**Current Assets** (₹10,00,000)		
Current Liabilities			Stock	4,00,000	5,20,000
Bank Overdraft	1,00,000	–	Sundry Debtors	3,00,000	4,95,000
Creditors	3,00,000	4,15,000	Cash at Bank (Balancing)	3,00,000	3,10,000
Total	28,00,000	31,60,600	Total	28,00,000	31,60,600

Calculation for 31 March, 2006

(i) Calculation of Current Liabilities

Suppose that Current Liabilities = x, then current assets will be 2.5 x

Working capital = Current Assets – Current Liabilities

6,00,000 = 2.5x – x

x = 6,00,000 / 1.5 = ₹4,00,000 (C.L.)

Other Current Liabilities = Current Liabilities – Bank Overdraft

(Creditors) 4,00,000 – 1,00,000 = ₹3,00,000

Current Assets = 2.5 x 4,00,000 = ₹10,00,000

(ii) Liquid Ratio = Liquid Assets / Current Liabilities or 1.5 = Liquid Assets / 4,00,000 = ₹ 6,00,000

Liquid assets = Current Assets – Stock

6,00,000 = 10,00,000 – Stock

So, Stock = ₹4,00,000

(iii) Calculation of fixed assets: Fixed assets to proprietary fund is 0.75, working capital is therefore 0.25 of proprietary fund. So,

6,00,000 / 0.25 x 0.75 = ₹18,00,000

(iv) Debtors = 2 / × 12 Sales

2 / 12 × 18,00,000 = ₹3,00,000

(v) Sales = (14,40,000 / 80) × 100 = ₹18,00,000

(vi) Net profit = 15% of ₹ 18,00,000 = ₹2,70,000

Calculation for the year 31st March, 2007

(vii) Sales = 18,00,000 + (18,00,000 × 0.2) = 21,60,000

(viii) Calculation of fixed assets

	₹		₹
To Opening balance	18,00,000	By Banks (Sale)	90,000
		By Loss on sales of Fixed asset	90,000
		By P & L (Dep) (5% as in previous year)	81,000
		By Balance b/d	15,39,000
Total	18,00,000		18,00,000

(ix) Net profit for the year 2007, 16% × 21,60,000 = ₹3,45,600

Total Profit = 2,70,000 + 3,45,600 = ₹6,15,600

Calculation of fund from operation:

Net profit for the year 2007			= ₹3,45,600
Add:	Depreciation	₹81,000	
	Loss on sale of assets	₹90,000	= ₹1,71,000
Total			= ₹5,16,600

Fund Flow Statement

	₹		₹
Fund from operation	5,16,600	Increase in WC	3,10,000
Sales of fixed assets	90,000	Pur. of investment	2,96,600
	6,06,600		6,06,600

Schedule of Changing Working Capital

	31 March 2006	*31 March 2007*	***Increase* (+)**	***Decease* (–)**
A. Current Assets	₹	₹	₹	₹
Stock	4,00,000	5,20,000	1,20,000	
Sundry debtors	3,00,000	4,95,000	1,95,000	
Cash at bank	3,00,000	3,10,000	10,000	
	10,00,000	13,25,000		
B. Current Liabilities				
Bank overdraft	1,00,000	–	1,00,000	
Sundry creditors	3,00,000	4,15,000		1,15,000
	4,00,000	4,15,000		
Working capital	6,00,000	9,10,000	–	
Increase in working capital	3,10,000			3,10,000
	9,10,000	9,10,000	4,25,000	4,25,000

Question 14

Balance Sheets of a company as on 31st March, 2007 and 2008 were as follows:

Liabilities	31.3.07	31.3.08	Assets	31.3.07	31.3.08
	₹	₹		₹	₹
Equity Share Capital	10,00,000	10,00,000	Goodwill	1,00,000	80,000
8% P.S. Capital	2,00,000	3,00,000	Land and Building	7,00,000	6,50,000
General Reserve	1,20,000	1,45,000			
Securities Premium	–	25,000	Plant and		
Profit and Loss A/c	2,10,000	3,00,000	Machinery	6,00,000	6,60,000
11% Debentures	5,00,000	3,00,000	Investments		
Creditors	1,85,000	2,15,000	(non-trading)	2,40,000	2,20,000
Provision for tax	80,000	1,05,000	Stock	4,00,000	3,85,000
Proposed Dividend	1,36,000	1,44,000	Debtors	2,88,000	4,15,000
			Cash and Bank	88,000	93,000
			Prepaid Expenses	15,000	11,000
			Premium on Redemption of Debentures	–	20,000
	24,31,000	25,34,000		24,31,000	25,34,000

Additional Information:

1. *Investments were sold during the year at a profit of ₹15,000.*
2. *During the year an old machine costing ₹ 80,000 was sold for ₹ 36,000. Its written down value was ₹ 45,000.*
3. *Depreciation charged on Plants and Machinery @ 20 per cent on the opening balance.*
4. *There was no purchase or sale of Land and Building.*
5. *Provision for tax made during the year was ₹ 96,000.*
6. *Preference shares were issued for consideration of cash during the year.*

You are required to prepare:

(i) *Cash flow statement as per AS 3.*

(ii) *Schedule of Changes in Working Capital.*

Answer

(i) Cash Flow Statement

for the year ending 31st Mach, 2008

	₹	₹
A. Cash flow from Operating Activities		
Profit and Loss A/c as on 31.3.2008		3,00,000
Less: Profit and Loss A/c as on 31.3.2007		2,10,000
		90,000
Add: Transfer to General Reserve	25,000	
Provision for Tax	96,000	
Proposed Dividend	1,44,000	2,65,000
Profit before Tax		3,55,000
Adjustment for Depreciation:		
Land and Building	50,000	
Plant and Machinery	1,20,000	1,70,000
Profit on Sale of Investments		(15,000)
Loss on Sale of Plant and Machinery		9,000
Goodwill written off		20,000
Interest Expenses		33,000
Operating Profit before Working Capital Changes		5,72,000
Adjustment for Working Capital Changes:		
Decrease in Prepaid Expenses		4,000
Decrease in Stock		15,000
Increase in Debtors		(1,27,000)
Increase in Creditors		30,000
Cash generated from Operations		4,94,000
Income tax paid		(71,000)
Net Cash Inflow from Operating Activities (a)		4,23,000
B. Cash flow from Investing Activities		
Sale of Investment		35,000
Sale of Plant and Machinery		36,000
Purchase of Plant and Machinery		(2,25,000)
Net Cash Outflow from Investing Activities (b)		(1,54,000)
C. Cash Flow from Financing Activities		
Issue of Preference Shares		1,00,000

Premium received on Issue of Securities		25,000
Redemption of Debentures at premium		(2,20,000)
Dividend paid		(1,36,000)
Interest paid to Debenture holders		(33,000)
Net Cash Outflow from Financing Activities (c)		(2,64,000)
Net increase in Cash and Cash Equivalents during the year **(a + b + c)**		5,000
Cash and Cash Equivalents at the beginning of the year		88,000
Cash and Cash Equivalents at the end of the year		93,000

Working Notes:

1. **Provision for the Tax Account**

	₹		₹
To Bank (paid)	71,000	By Balance b/d	80,000
To Balance c/d	1,05,000	By Profit and Loss a/c	96,000
	1,76,000		1,76,000

2. **Investment Account**

	₹		₹
To Balance b/d	2,40,000	By Bank a/c (b/f)	35,000
To Profit and Loss (profit on sale)	15,000	By Balance c/d	2,20,000
	2,55,000		2,55,000

3. **Plant and Machinery Account**

	₹		₹
To Balance b/d	6,00,000	By Bank (sale)	36,000
To Bank a/c (Purchase b/f)	2,25,000	By Profit and Loss a/c	9,000
		(Loss on sale)	
		By Depreciation	1,20,000
		By Balance c/d	6,60,000
	8,25,000		8,25,000

Note: Since the date of redemption of debentures is not mentioned in the question, therefore, it is assumed that the debentures are redeemed at the beginning of the year.

(ii) **Schedule of Changes in Working Capital**

Particulars	***31st March***		***Change in Working Capital***	
	2007 ₹	***2008*** ₹	***Increase*** ₹	***Decrease*** ₹
Current Assets				
Stock	4,00,000	3,85,000	–	15,000
Debtors	2,88,000	4,15,000	1,27,000	–
Prepaid Expenses	15,000	11,000	–	4,000
Cash and Bank	88,000	93,000	5,000	–
Total (A)	7,91,000	9,04,000		
Current Liabilities				
Creditors	1,85,000	2,15,000	–	30,000
Total (B)	1,85,000	2,15,000		
Working Capital **(A – B)**	6,06,000	6,89,000		
Increase in Working Capital	83,000	—	—	83,000
	6,89,000	6,89,000	1,32,000	1,32,000

Question 15

Balance Sheets of RST Limited as on March 31, 2008 and March 31, 2009 are as under:

Liabilities	*31.3.2008* ₹	*31.3.2009* ₹	*Assets*	*31.3.2008* ₹	*31.3.2009* ₹
Equity Share Capital (₹10 face value per share)	*10,00,000*	*12,00,000*	*Land & Building*	*6,00,000*	*7,00,000*
General Reserve	*3,50,000*	*2,00,000*	*Plant & Machinery*	*9,00,000*	*11,00,000*
9% Preference Share Capital	*3,00,000*	*5,00,000*	*Investments (Long-term)*	*2,50,000*	*2,50,000*
Share Premium A/c	*25,000*	*4,000*	*Stock*	*3,60,000*	*3,50,000*
Profit & Loss A/c	*2,00,000*	*3,00,000*	*Debtors*	*3,00,000*	*3,90,000*
8% Debentures	*3,00,000*	*1,00,000*	*Cash & Bank*	*1,00,000*	*95,000*
Creditors	*2,05,000*	*3,00,000*	*Prepaid Expenses*	*15,000*	*20,000*
Bills Payable	*45,000*	*81,000*	*Advance Tax Payment*	*80,000*	*1,05,000*
Provision for Tax	*70,000*	*1,00,000*	*Preliminary Expenses*	*40,000*	*35,000*
Proposed Dividend	*1,50,000*	*2,60,000*			
	26,45,000	*30,45,000*		*26,45,000*	*30,45,000*

Additional information:

(i) Depreciation charged on building and plant and machinery during the year 2008-09 were ₹ 50,000 and ₹ 1,20,000 respectively.

(ii) During the year an old machine costing ₹ 1,50,000 was sold for ₹ 32,000. Its written down value was ₹ 40,000 on date of sale.

(iii) During the year, income tax for the year 2007-08 was assessed at ₹ 76,000. A cheque of ₹ 4,000 was received along with the assessment order towards refund of income tax paid in excess, by way of advance tax in earlier years.

(iv) Proposed dividend for 2007-08 was paid during the year 2008-09.

(v) 9% Preference shares of ₹ 3,00,000, which were due for redemption, were redeemed during the year 2008-09 at a premium of 5%, out of the proceeds of fresh issue of 9% Preference shares.

(vi) Bonus shares were issued to the existing equity shareholders at the rate of one share for every five shares held on 31.3.2008 out of general reserves.

(vii) Debentures were redeemed at the beginning of the year at a premium of 3%.

(viii) Interim dividend paid during the year 2008-09 was ₹ 50,000.

Required:

(a) Schedule of Changes in Working Capital; and

(b) Fund Flow Statement for the year ended March 31, 2009.

Answer

(a) Schedule of Changes in Working Capital

Particulars	*31.3.08*	*31.3.09*	*Effect on Working Capital*	
			Increase	*Decrease*
	₹	₹	₹	₹
Current Assets:				
Stock	3,60,000	3,50,000	-	10,000
Debtors	3,00,000	3,90,000	90,000	-
Cash and Bank	1,00,000	95,000	-	5,000
Prepaid Expenses	15,000	20,000	5,000	-
Total (A)	7,75,000	8,55,000		
Current Liabilities:				
Creditors	2,05,000	3,00,000	-	95,000

Bills Payable	45,000	81,000	-	36,000
Total (B)	2,50,000	3,81,000		
Net Working Capital (A-B)	5,25,000	4,74,000	-	
Net Decrease in Working Capital	-	51,000	51,000	-
	5,25,000	5,25,000	1,46,000	1,46,000

(b) Funds Flow Statement for the year ended 31st March, 2009

	₹
Sources of Fund	
Funds from Operation	7,49,000
Issue of 9% Preference Shares	5,00,000
Sales of Plant & Machinery	32,000
Refund of Income Tax	4,000
Financial Resources Provided (A)	12,85,000
Applications of Fund	
Purchase of Land and Building	1,50,000
Purchase of Plant and Machinery	3,60,000
Redemption of Debentures	2,06,000
Redemption of Preference Shares	3,15,000
Payment of Tax	1,05,000
Payment of Interim Dividend	50,000
Payment of Dividend (2007-08)	1,50,000
Financial Resources Applied (B)	13,36,000
Net Decrease in Working Capital (A - B)	51,000

Working Notes:

Estimation of Funds from Operation		₹
Profit and Loss A/c Balance on 31.3.2009		3,00,000
Add: Depreciation on Land and Building	50,000	
Depreciation on Plant and Machinery	1,20,000	
Loss on Sale of Plant and Machinery (40,000 – 32,000)	8,000	
Preliminary Expenses written off (40,000 – 35,000)	5,000	
Transfer to General Reserve	50,000	
Proposed Dividend	2,60,000	
Provision for Taxation	1,06,000	

Interim Dividend paid	50,000	
		6,49,000
		9,49,000
Less: Profit and Loss A/c balance on 31.3.08		2,00,000
Funds from Operation		7,49,000

Plant & Machinery A/c

	₹		₹
To Balance b/d	9,00,000	By Depreciation	1,20,000
To Bank [Purchase (Bal. Fig.)]	3,60,000	By Bank (Sale)	32,000
		By P/L A/c (Loss on Sale)	8,000
		By Balance c/d	11,00,000
	12,60,000		12,60,000

Provision for Taxation A/c

	₹		₹
To Advance tax payment A/c	76,000	By Balance b/d	70,000
To Balance c/d	1,00,000	By P/L A/c (additional provision for 2007-08)	6,000
		By P/L A/c (Provision for 08-09)	1,00,000
	1,76,000		1,76,000

Advance Tax Payment A/c

	₹		₹
To Balance b/d	80,000	By Provision for taxation A/c	76,000
To Bank (paid for 08-09)	1,05,000	By Bank (Refund of tax)	4,000
		By Balance c/d	1,05,000
	1,85000		1,85,000

8% Debentures A/c

	₹		₹
To Bank (2,00,000 x 103%) (redemption)	2,06,000	By Balance b/d	3,00,000
To Balance c/d	1,00,000	By Premium on redemption of Debentures A/c	6,000
	3,06,000		3,06,000

9% Preference Share Capital A/c

	₹		₹
To Bank A/c (3,00,000 x 105%) (redemption)	3,15,000	By Balance b/d	3,00,000
To Balance c/d	5,00,000	By Premium on redemption of Preference shares A/c	15,000
		By Bank (Issue)	5,00,000
	8,15,000		8,15,000

Securities Premium A/c

	₹		₹
To Premium on redemption of debentures A/c	6,000	By Balance b/d	25,000
To Premium on redemption of preference shares A/c	15,000		
To Balance c/d	4,000		
	25,000		25,000

General Reserve A/c

	₹		₹
To Bonus to Shareholders A/c	2,00,000	By Balance b/d	3,50,000
To Balance c/d	2,00,000	By P/L A/c (transfer) b/f	50,000
	4,00,000		4,00,000

Land and Building A/c

	₹		₹
To Balance b/d	6,00,000	By Depreciation	50,000
To Bank (Purchase) (Bal. Fig.)	1,50,000	By Balance c/d	7,00,000
	7,50,000		7,50,000

Question 16

The Balance Sheets of a Company as on 31st March, 2008 and 2009 are given below:

Liabilities	*31.3.08*	*31.3.09*	*Assets*	*31.3.08*	*31.3.09*
	₹	₹		₹	₹
Equity share capital	*14,40,000*	*19,20,000*	*Fixed assets*	*38,40,000*	*45,60,000*
Capital reserve	-	*48,000*	*Less: depreciation*	*11,04,000*	*13,92,000*
General reserve	*8,16,000*	*9,60,000*		*27,36,000*	*31,68,000*
Profit & Loss A/c	*2,88,000*	*3,60,000*	*Investment*	*4,80,000*	*3,84,000*

9% debentures	*9,60,000*	*6,72,000*	*Sundry debtors*	*12,00,000*	*14,00,000*
Sundry creditors	*5,50,000*	*5,90,000*	*Stock*	*1,40,000*	*1,84,000*
Bills payables	*26,000*	*34,000*	*Cash in hand*	*4,000*	*-*
Proposed dividend	*1,44,000*	*1,72,800*	*Preliminary Expenses*	*96,000*	*48,000*
Provision for tax	*4,32,000*	*4,08,000*			
Unpaid dividend	*-*	*19,200*			
	46,56,000	*51,84,000*		*46,56,000*	*51,84,000*

Additional information:

During the year ended 31st March, 2009 the company:

(i) Sold a machine for ₹ 1,20,000; the cost of machine was ₹2,40,000 and depreciation provided on it was ₹84,000.

(ii) Provided ₹4,20,000 as depreciation on fixed assets.

(iii) Sold some investment and profit credited to capital reserve.

(iv) Redeemed 30% of the debentures @ 105.

(v) Decided to write off fixed assets costing ₹60,000 on which depreciation amounting to ₹48,000 has been provided.

You are required to prepare Cash Flow Statement as per AS 3.

Answer

Cash Flow Statement for the year ending 31st March, 2009

(A) Cash Flows from Operating Activities

			₹
Profit and Loss A/c (3,60,000 – 2,88,000)			72,000
Adjustments:			
Increase in General Reserve	1,44,000		
Depreciation	4,20,000		
Provision for Tax	4,08,000		
Loss on Sale of Machine	36,000		
Premium on Redemption of Debentures	14,400		
Proposed Dividend	1,72,800		
Preliminary Expenses written off	48,000		
Fixed Assets written off	12,000		
Interest on Debentures*	60,480		13,15,680

Funds from Operations			13,87,680
Increase in Sundry Creditors	40,000		
Increase in Bills Payable	8,000		
	48,000		
Increase in Sundry Debtors	(2,00,000)		
Increase in Stock	(44,000)		(1,96,000)
Cash before Tax			11,91,680
Less: Tax paid			4,32,000
Cash flows from Operating Activities			7,59,680

(B) Cash Flows from Investing Activities

Purchase of Fixed Assets		(10,20,000)	
Sale of Investment		1,44,000	
Sale of Fixed Assets		1,20,000	(7,56,000)

(C) Cash Flows from Financing Activities

Issue of Share Capital	4,80,000	
Redemption of Debentures	(3,02,400)	
Dividend Paid (1,44,000 – 19,200)	(1,24,800)	
Interest on Debentures	(60,480)	(7,680)
Net increase in Cash and Cash Equivalents		(4,000)
Cash and Cash Equivalents at the beginning of the year		4,000
Cash and Cash Equivalents at the end of the year		NIL

** It is assumed that the 30 percent debentures have been redeemed at the beginning of the year.*

Fixed Assets Account

	Particulars	₹		*Particulars*	₹
To	Balance b/d	27,36,000	By	Cash	1,20,000
To	Purchases (Balance)	10,20,000	By	Loss on Sales	36,000
			By	Depreciation	4,20,000
			By	Assets written off	12,000
			By	Balance c/d	31,68,000
		37,56,000			37,56,000

Question 17

The summarized Balance Sheets of XYZ Limited as at 31st March, 2010 and 2011 are given below:

Liabilities	2010	2011	Assets	2010	2011
	(₹)	(₹)		(₹)	(₹)
Preference share capital	4,00,000	2,00,000	Plant and Machinery	7,00,000	8,20,000
Equity share capital	4,00,000	6,60,000	Long term investment	3,20,000	4,00,000
Share premium A/c	40,000	30,000	Goodwill	-	30,000
Capital redemption reserve	-	1,00,000	Current Assets	9,10,000	11,41,000
General reserve	2,00,000	1,20,000	Short term investment (less than 2 months)	50,000	84,000
P & L A/c	1,30,000	1,75,000	Cash and Bank	1,00,000	80,000
Current liabilities	6,40,000	9,00,000	Preliminary expenses	40,000	20,000
Proposed dividend	1,60,000	2,10,000			
Provision for tax	1,50,000	1,80,000			
	21,20,000	25,75,000		21,20,000	25,75,000

Additional information:

During the year 2011 the company:

(i) Preference share capital was redeemed at a premium of 10% partly out of proceeds issue of 10,000 equity shares of ₹ 10 each issued at 10% premium and partly out of profits otherwise available for dividends.

(ii) The company purchased plant and machinery for ₹ 95,000. It also acquired another company stock ₹ 25,000 and plant and machinery ₹ 1,05,000 and paid ₹ 1,60,000 in Equity share capital for the acquisition.

(iii) Foreign exchange loss of ₹ 1,600 represents loss in value of short-term investment.

(iv) The company paid tax of ₹ 1,40,000.

You are required to prepare cash flow statement.

Answer

Preparation of Statement of Cash Flow for XYZ Limited

Cash flow statement as per AS 3 for the year ending 31st March, 2011

(a)	Cash flow from Operating Activities	₹	₹
	Profit before tax (2,75,000 + 1,70,000)	4,45,000	
	Add: Depreciation on machinery	80,000	
	Foreign exchange loss	1,600	
	Preliminary expenses written off	20,000	
	Cash flow before working capital adjustment	5,46,600	
	Add: Stock obtained on acquisition	25,000	
	Increase in Current Liabilities	2,60,000	
	Less: Increase in current assets	(2,31,000)	
	Cash flow before tax paid	6,00,600	
	Less: Tax paid	(1,40,000)	
	Cash flow from operating activities		4,60,600
(b)	Cash flow from Investing Activities		
	Purchase of Machinery	(95,000)	
	Purchase of investment	(80,000)	(1,75,000)
(c)	Cash flow from Financing Activities		
	Issue of shares at premium	1,10,000	
	Payment of dividend	(1,60,000)	
	Redemption of preference shares at premium	(2,20,000)	(2,70,000)
	Net increase/decrease in cash and cash equivalent (a+b+c)		15,600
	Cash and cash equivalent at the beginning of the year		1,50,000
	Cash and cash equivalent at the end of the year		1,65,600

Working Notes:

1. **Plant and Machinery Account**

	₹		₹
To balance b/d	7,00,000	By depreciation	80,000
To bank	95,000		
To acquired from other	1,05,000	By balance c/f	8,20,000
	9,00,000		9,00,000

2. **Provision for Tax Account**

	₹		₹
To bank	1,40,000	By balance b/d	1,50,000
To balance c/f	1,80,000	By P & L	1,70,000
	3,20,000		3,20,000

3. **Profit for the year 2011**

	₹
P&L Account (1,75,000-1,30,000)	45,000
Transfer to general reserve (1,20,000+1,00,000 for redemption-opening 2,00,000)	20,000
Proposed dividend	2,10,000
Net Profit	2,75,000

4. **Cash and Cash Equivalent**

Opening balance + short term investment =₹ 1,00,000 + ₹ 50,000 = ₹ 1,50,000

Closing balance = Closing cash + short term investment + foreign exchange loss

= ₹ 80,000+₹ 84,000+₹ 1,600=₹ 1,65,600

Question 18

The Balance Sheet of X Ltd. as on 31-3-2011 and 31-3-2012 are as under:

Liabilities	*2011*	*2012*	*Assets*	*2011*	*2012*
Equity Share capital (₹ 10 each)	*18,00,000*	*22,00,000*	*Fixed Assets (Including machine)*	*20,50,000*	*18,75,000*
General Reserve	*7,50,000*	*6,00,000*	*Stock*	*7,10,000*	*8,95,000*
Security premium	*50,000*	*45,000*	*Debtors*	*7,25,000*	*9,80,000*
Profit & Loss A/c	*4,50,000*	*5,30,000*	*Cash Balance*	*1,25,000*	*1,80,000*
7% Debentures	*3,00,000*	*2,00,000*	*Preliminary Expense*	*35,000*	*25,000*
Creditors	*1,50,000*	*2,15,000*			
Provision for tax	*1,45,000*	*1,65,000*			
	36,45,000	*39,55,000*		*36,45,000*	*39,55,000*

Additional Information:

(i) *Depreciation charged on fixed assets during the year was ₹ 2,05,000. An old machine costing ₹ 2,00,000 (WDV ₹ 80,000) was sold for ₹ 65,000 during the year.*

(ii) *Provisions for tax made during the year for ₹ 1,78,000.*

(iii) *On 1-4-2011 company redeemed debentures of ₹ 1,00,000 at a premium of 5%.*

(iv) *Company has issued fully paid bonus shares of ₹ 2,00,000 by capitalization of profit.*

Prepare Cash Flow Statement.

Answer

Cash flow Statement of X Ltd. for the year ending 31.03.2012

(A)	Cash flow from Operating Activities :	(₹)	(₹)
	Net Profit before Tax (80,000 + 50,000 + 1,78,000)	3,08,000	
	Add : Depreciation	2,05,000	
	Loss on Sale of Machine	15,000	
	Interest Paid on Debentures	14,000	
	Preliminary Expenses written off	10,000	
	Cash flow before working capital adjustments	5,52,000	
	(–) Increase in Stock	(1,85,000)	
	(–) Increase in Debtors	(2,55,000)	
	(+) Increase in Creditors	65,000	
	Cash flow from Operating Activities	1,77,000	
	Less : Tax paid	(1,58,000)	19,000
(B)	Cash flow from Investing Activities		
	Sale of Machine	65,000	
	Purchase of Fixed Assets	(1,10,000)	
	Net cash used in Investing activities		(45,000)
(C)	Cash flow from Financing activities		
	Issue of Equity Shares	2,00,000	
	Redemption of Debentures	(1,05,000)	
	Interest paid on Debentures	(14,000)	
	Net cash used in Financing Activities		81,000
	Net Increase in Cash and Cash Equivalent during year		55,000
	Add : Opening Balance of Cash		1,25,000
	Closing Balance of Cash		1,80,000

Working Notes:

Fixed Assets Account

To Balance b/d	20,50,000	By Bank	65,000
To Bank	1,10,000	By P&L a/c	15,000
		By Depreciation a/c	2,05,000
		By Balance c/d	18,75,000
	21,60,000		21,60,000

Provision for Tax

To Balance b/d	1,58,000	By balance c/d	1,45,000
To Bank	1,65,000	By P & L a/c	1,78,000
	3,23,000		3,23,000

General Reserve A/c

To Equity share capital a/c	2,00,000	By Balance b/d	7,50,000
To Balance c/d	6,00,000	By P & L a/c	50,000
	8,00,000		8,00,000

Question 19

The summarized Balances Sheets of MPS Limited as on 31-3-2012 and 31-3-2013 are as under:

Liabilities	*31-3-2012*	*31-3-2013*	*Assets*	*31-3-2012*	*31-3-2013*
	₹			₹	₹
Equity share capital	*40.00*	*50.00*	*Land & Building*	*27.00*	*25.00*
Securities Premium Account	-	*1.00*	*Plant & Machinery*	*25.00*	*34.00*
General Reserve	*8.00*	*11.00*	*Investments (Long Term)*	*3.00*	*8.00*
Profit & Loss Account	*10.30*	*12.70*	*Stock*	*7.50*	*9.80*
10% Debentures	*5.00*	*3.00*	*Debtors*	*9.25*	*11.15*
Sundry Creditors	*4.90*	*6.20*	*Bills Receivable*	*1.77*	*1.65*
Provision for Tax	*5.00*	*7.00*	*Cash & Bank Balance*	*4.50*	*7.70*
Proposed Dividend	*4.80*	*6.00*	*Preliminary Expenses*	*0.80*	*0.62*
Corporate Dividend Tax	*0.82*	*1.02*			
	78.82	*97.92*		*78.82*	*97.92*

Additional Information:

(i) On 1.4.2012, the company redeemed debentures of ₹ 2,00,000 at par.

(ii) During 2012-13 the company has issued equity shares for cash at a premium of 10%.

(iii) Provision for tax made during the year 2012-13 for ₹ 6,80,000.

(iv) Dividend received on investment ₹ 50,000 in July 2012.

(v) A machine costing ₹ 8,00,000 (WDV ₹ 1,20,000) was sold for ₹ 50,000 during the year 2012-13.

(vi) Depreciation for 2012-13 charged on plant & machinery ₹ 3,30,000 and ₹ 2,00,000 on land and building.

(vii) Proposed Dividend and Corporate Dividend Tax of 2011-12 paid during the year 2012-13.

Prepare a Cash Flow Statement as per Accounting Standard (AS)-3.

Answer

Cash Flow Statement

		(₹ in lakhs)	(₹ in lakhs)
(A)	Cash Flow from Operating Activities		
	Profit and Loss A/c (12.70 – 10.30)	2.40	
	Add: General Reserves (11.00 – 8.00)	3.00	
		5.40	
	Add: Provision for tax	6.8	
		12.20	
	Add: Proposed dividend	6.00	
	Corporate dividend tax	1.02	
	Profit before tax	19.22	
	Add: Interest on debentures	0.30	
	Loss on Sale of Machinery	0.70	
	Depreciation on Plant & Machinery	3.30	
	Depreciation on Land & Building	2.00	
	Preliminary Expenses written off	0.18	
		25.70	
	Less: Dividend received on Investment	(0.50)	

	Cash flow before W/C adjustments	25.20	
	Less: Increase in Current Assets		
	Stock	(2.30)	
	Debtors	(1.90)	
		21.00	
	Add: Decrease in Current Assets		
	Bills receivables	0.12	
	Add: Increase in Current Liabilities		
	Sundry Creditors	1.30	
	Cash Generated from Operations	22.42	
	Less: Income tax paid		
	[(5.00+6.80) – 7.00]	(4.80)	
	Cash Flow from Operating Activities		17.62
(B)	Cash Flow from Investing Activities		
	Sale of Plant & Machinery	0.50	
	Purchase of Plant & Machinery	(13.50)	
	Purchase of Investment	(5.00)	
	Dividend Received on Investment	0.50	
	Cash Flow from Investing Activities		(17.50)
(C)	Cash Flow from Financing Activities		
	Issue of Share Capital	10.00	
	Securities Premium	1.00	
	Redemption of Debentures	(2.00)	
	Interest on debentures	(0.30)	
	Proposed Dividend	(4.80)	
	Corporate dividend tax	(0.82)	
	Cash flow from Financing Activities		3.08
	Net increase in Cash and Cash Equivalent (A+B+C)		3.20
	Cash and Cash equivalent at beginning of year		4.50
	Cash and Cash Equivalent at end of year		7.70

Working Notes:

Provision for Tax A/c

Particulars	Amount (₹)	Particulars	Amount (₹)
To Cash b/f	4.80	By Bal. b/d	5.00
To Balance c/d	7.00	By P/L	6.80
	11.80		11.80

Land & Building A/c

Particulars	Amount (₹)	Particulars	Amount (₹)
To Bal. b/d	27.00	By Depreciation	2.00
		By Balance c/d	25.00
	27.00		27.00

Plant & Machinery A/c

Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance b/d	25.00	By Bank	0.50
To Bank b/f	13.50	By P/L	0.70
		By Depreciation	3.30
		By Balance c/d	34.00
	38.50		38.50

Question 20

Balance Sheets of ABC Ltd as on March 31, 2009 and March 31, 2010 are as under:

Liabilities	***31.3.2009 ₹***	***31.3.2010 ₹***	***Assets***	***31.3.2009 ₹***	***31.3.2010 ₹***
Share Capital	*40,00,000*	*40,00,000*	*Land and Building*	*30,00,000*	*28,00,000*
General Reserve	*8,00,000*	*9,00,000*	*Plant and Machinery*	*36,00,000*	*35,00,000*
Profit and Loss A/c	*5,00,000*	*7,20,000*	*Investments (long-term)*	*8,00,000*	*7,44,000*
10% Debentures	*20,00,000*	*16,00,000*	*Stock*	*9,60,000*	*17,00,000*
Bank Loan (long-term)	*10,00,000*	*12,00,000*	*Debtors*	*12,00,000*	*15,96,000*
Creditors	*8,00,000*	*11,60,000*	*Prepaid Expenses*	*1,00,000*	*80,000*

Outstanding Expenses	*40,000*	*50,000*	*Cash and Bank*	*2,80,000*	*1,70,000*
Proposed Dividend	*6,00,000*	*7,20,000*			
Provision for Taxation	*2,00,000*	*2,40,000*			
	99,40,000	*1,05,90,000*		*99,40,000*	*1,05,90,000*

Additional Information:

(i) *New machinery for ₹ 6,00,000 was purchased but an old machinery costing ₹ 2,90,000 was sold for ₹ 1,00,000 and accumulated depreciation thereon was ₹ 1,50,000.*

(ii) *10% debentures were redeemed at 20% premium.*

(iii) *Investments (long term) were sold for ₹ 90,000 and its profit was transferred to general reserve.*

(iv) *Income-tax paid during the year 2009-10 was ₹ 1,60,000.*

(v) *An interim dividend of ₹ 2,40,000 has been paid during the year 2009-10.*

(vi) *Assume the provision for taxation as current liability and proposed dividend as non-current liability.*

(vii) *Investments (long-term) are non-trade investments.*

Required:

(i) *Schedule of changes in working capital*

(ii) *Funds flow from operations for the year ended March 31, 2010.*

Answer

(i) Schedule of Changes in Working Capital:

Particulars	***31st March***		***Working Capital***	
	2009 ₹	***2010*** ₹	***Increase*** ₹	***Decrease*** ₹
(A) Current Assets				
Stock	9,60,000	17,00,000	7,40,000	
Debtors	12,00,000	15,96,000	3,96,000	
Prepaid Expenses	1,00,000	80,000		20,000
Cash and Bank	2,80,000	1,70,000		1,10,000
Total (A)	25,40,000	35,46,000		

(B)	**Current Liabilities**				
	Creditors	8,00,000	11,60,000		3,60,000
	Outstanding Expenses	40,000	50,000		10,000
	Provision for Taxation	2,00,000	2,40,000		40,000
	Total (B)	10,40,000	14,50,000		
	Working Capital (A) – (B)	15,00,000	20,96,000	11,36,000	5,40,000
	Increase in Working Capital	5,96,000			5,96,000
	Total	20,96,000	20,96,000	11,36,000	11,36,000

(ii) Funds flow from Operations for the year ended March 31, 2010

Adjusted Profit and Loss A/C

Particulars		₹	Particulars	₹
To General Reserve		66,000	By Balance b/d	5,00,000
To Depreciation:			By Funds from Operations (Balancing figure)	21,26,000
On Land & Building	2,00,000			
On Plant & Machinery	5,60,000	7,60,000		
To Loss on Sale of Machine		40,000		
To Premium on Redemption of Debentures		80,000		
To Proposed Dividend		7,20,000		
To Interim Dividend		2,40,000		
To Balance c/d		7,40,000		
		26,26,000		26,26,000

Working Notes:

(i) **Depreciation on Land and Building** = ₹30,00,000 – 28,00,000 = ₹2,00,000

(ii) **Loss on Sale of Old Machine** = ₹2,90,000 (Cost) –1,50,000 (Cum. Dep.) – 1,00,000 (Sale Value) = 40,000

(iii) **Depreciation on Plant and Machinery**

Dr.	₹	*Cr.*	₹
To Balance b/d	36,00,000	By Bank a/c (sold)	1,00,000
To Bank a/c (Purchases)	6,00,000	By Profit & Loss a/c (Loss on Sales)	40,000
		By Depreciation (Balancing figure)	5,60,000
		By Balance c/d	35,00,000
	42,00,000		42,00,000

(iv) **Premium on Redemption of Debentures**

Amount of Debentures Redeemed = ₹ 20,00,000 − 16,00,000 = ₹4,00,000

Premium = 20% of 4,00,000= ₹ 80,000

Question 21

Following are the summarized Balance Sheets of JKM Limited as on 31st March, 2011 and 2012 :

(₹ in lakhs)

Liabilities	*31st March*		*Assets*	*31st March*	
	2011	*2012*		*2011*	*2012*
	₹	₹		₹	₹
Equity Share Capital	*50.00*	*55.00*	*Goodwill*	*5.00*	*4.20*
Capital Reserve	-	*2.50*	*Land & Building*	*20.00*	*18.00*
General Reserve	*4.00*	*6.00*	*Plant & Machinery*	*22.00*	*31.00*
Profit & Loss Account	*5.30*	*6.70*	*Investment*	*2.00*	*3.50*
Proposed Dividend	*8.00*	*11.00*	*Stock*	*8.60*	*12.70*
Bills Payable	*2.00*	*1.80*	*Sundry Debtors*	*10.20*	*13.00*
Sundry Creditors	*3.50*	*4.60*	*Bills Receivables*	*1.00*	*0.70*
Provision for Tax	*4.00*	*5.00*	*Cash in hand & Bank*	*7.20*	*8.90*
			Share Issue Exp.	*0.80*	*0.60*
	76.80	*92.60*		*76.80*	*92.60*

Additional Information:

(i) A machine (original cost ₹ 2,80,000; Book Value ₹ 1,70,000) was sold during the year for ₹ 1,50,000.

(ii) Depreciation for 2011-12 was amounted to ₹ 3,00,000 on plant and machinery and ₹ 50,000 on land and building.

(iii) A piece of land had been sold out on 01-11-2011 and the profit on the sale has been credited in capital reserve.

(iv) ₹ 40,000 is received as dividend including ₹ 15,000 pre-acquisition profit, which is credited to investment account.

(v) An interim dividend of ₹ 2,50,000 has been paid during the year 2011-12.

(vi) Income tax paid during the year 2011-12, amounted to ₹ 3,80,000.

Required:

(A) Prepare a schedule of changes in the working capital.

(B) Prepare funds flow statement as on 31st March, 2012.

Answer

(A) **Schedule of Changes in the Working Capital**

Particulars	31st March		Changes in Working Capital (in lakhs)	
	2011 (₹)	2012 (₹)	Increase (₹)	Decrease (₹)
A. Current Assets				
Stock	8.60	12.70	4.10	
Sundry Debtors	10.20	13.00	2.80	
Bills Receivables	1.00	0.70		0.30
Cash in Hand & Bank	7.20	8.90	1.70	
Total (A)	27.00	35.3		
B. Current Liabilities				
Sundry Creditors	3.50	4.60		1.10
Bills Payable	2.00	1.80	0.20	
Total (B)	5.5	6.4		
C. Working Capital (A-B)	21.5	28.9		
D. Increase in Working Capital	7.4			7.4
	28.9	28.9	8.8	8.8

(B) **Preparation of Funds Flow Statement**

Working Notes:

Plant & Machinery A/c

Particulars	₹	Particulars	₹
To Balance b/d	22.00	By Depreciation	3.00
To Bank (Purchase)	13.70	By Bank (Sale)	1.50
(Balancing figure)		By Loss on Sale	0.20
		By Balance c/d	31.00
	35.70		35.70

Provision for Taxation A/c

Particulars	₹	Particulars	₹
To Balance c/d	5.00	By Balance b/d	4.00
To Bank A/c	3.80	By P&L A/c (balancing figure)	4.80
	8.80		8.80

Investment A/c

Particulars	₹	Particulars	₹
To Balance b/d	2.00	By Dividend A/c	0.15
To Bank (purchase b/d)	1.65		
		By Balance c/d	3.50
	3.65		3.65

Land & Building A/c

Particulars	₹	Particulars	₹
To Balance b/d	20.00	By Bank A/c (Sale)	4.00
To Capital Reserve (Profit on Sale)	2.50	By Depreciation	0.50
		By Balance c/d	18.00
	22.50		22.50

Adjusted Profit & Loss A/c

Particulars	₹	Particulars	₹
To Depreciation on:		By Net Profit for 2011	5.30
Plant & Machinery	3.00	By Dividend on Investment	0.25

Land & Building	0.50	By Funds from Operation	26.15
To Loss on Sale of Machinery	0.20		
To Goodwill Written Off	0.80		
To Share Issue Up Written Off	0.20		
To Provision for Taxation	4.80		
To Transfer to General Reserves	2.00		
To Interim Dividend	2.50		
To Proposed Dividend	11.00		
By Net Profit for 2012	6.70		
	31.70		31.70

Funds Flow Statement as on 31st March 2012

Sources of Fund	Rs.	Application of Fund	Rs.
Funds from Operation	26.15	Increase in Working Capital	7.40
Dividend on Investment	0.40	Tax paid	3.80
Sale of Machinery	1.50	Interim Dividend	2.50
Issue of Shares	5.00	Dividend	8.00
Sale of Land	4.00	Purchase of Investments	1.65
		Purchase of Plant	13.70
	37.05		37.05

(**Note:** Schedule of changes in the working capital may be computed alternatively by taking provision for tax as a current liability.)

Question 22

The following are the summarized Balance Sheet of Flexon Limited as on 31st March 2012 and 2013 :

Liabilities	*31.3.12* ₹	*31.3.13* ₹	*Assets*	*31.3.12* ₹	*31.3.13* ₹
Share Capital	*8,00,000*	*8,00,000*	*Goodwill*	*15,000*	*15,000*
General Reserve	*1,40,000*	*1,80,000*	*Building*	*4,00,000*	*3,60,000*
Profit & Loss A/c.	*1,60,000*	*2,70,000*	*Plant*	*3,70,000*	*5,20,000*
Sundry Creditors	*1,71,000*	*1,67,000*	*Investment (Long-term)*	*1,20,000*	*1,50,000*

Bills Payable	*20,000*	*30,000*	*Stock*	*3,00,000*	*2,30,000*
Provision for Tax	*1,60,000*	*1,80,000*	*Debtors*	*1,80,000*	*2,00,000*
			Cash & Bank	*66,000*	*1,52,000*
	14,51,000	*16,27,000*		*14,51,000*	*16,27,000*

Additional Information:

(1) Depreciation charged during the year 2012-13:

On Plant - ₹ 40,000

On Building - ₹ 40,000

(2) Provision for tax of ₹ 1,90,000 was made during the year 2012-13.

(3) Interim dividend paid during the year 2012-13:

Interim Dividend - ₹ 80,000

Corporate Dividend Tax - ₹ 13,596

Prepare:

(i) Statement of changes in working capital

(ii) Funds flow statement for the year ended 31st March, 2013.

Answer

(b) (i) Schedule of Changes in Working Capital

Particulars	31st March		Working Capital	
	2012 (₹)	2013 (₹)	Increase (₹)	Decrease (₹)
(A) Current Assets				
Stock	3,00,000	2,30,000	-	70,000
Debtors	1,80,000	2,00,000	20,000	-
Cash & Bank	66,000	1,52,000	86,000	-
Total (A)	5,46,000	5,82,000		
(B) Current Liabilities				
Sundry Creditors	1,71,000	1,67,000	4,000	-
Bills Payable	20,000	30,000	-	10,000
Total (B)	1,91,000	1,97,000		
Working Capital (A-B)	3,55,000	3,85,000	1,10,000	80,000
Increase in Working Capital	30,000	-	-	30,000
Total	3,85,000	3,85,000	1,10,000	1,10,000

Funds Flow Statement as on 31st March, 2013

Sources of Fund	₹	Application of Fund	₹
Funds from Operation	5,13,596	Increase in Working Capital	30,000
		Interim Dividend	80,000
		Purchase of Investment	30,000
		Corporate Dividend Tax	13,596
		Purchase of Plant	1,90,000
		Payment of Income Tax	1,70,000
	5,13,596		5,13,596

Working Notes:

Adjusted Profit and Loss A/c

Particulars		₹	**Particulars**	₹
To General Reserve		40,000	By Net Profit for 2012	1,60,000
To Depreciation:				
Plant	40,000		By Funds from Operations	5,13,596
Building	40,000	80,000		
To Goodwill		-		
To Interim Dividend		80,000		
To Corporate Dividend Tax		13,596		
To Provision for Tax		1,90,000		
To Net Profit for 2013		2,70,000		
		6,73,596		6,73,596

Provision for Tax A/c

Particulars	₹	**Particulars**	₹
To Bank A/c (Tax Paid)	1,70,000	By Bal. b/d	1,60,000
To Balance b/d	1,80,000	By P&L A/c	1,90,000
	3,50,000		3,50,000

Plant & Machinery A/c

Particulars	₹	Particulars	₹
To Bal. b/d	3,70,000	By Depreciation	40,000
To Bank	1,90,000	By Bal. c/d	5,20,000
	5,60,000		5,60,000

(**Note**: Schedule of changes in the working capital maybe computed alternatively by taking provision for tax as current liability and working out the problem accordingly.)

Exercise

1. *The following information is available in respect of ABC Ltd.:*

   (1) Materials are purchased and received one month before being used and payment is made to suppliers two months after receipt of materials.

   (2) Cash is received from customers three months after finished goods are sold and delivered to them.

   (3) No time lag applies to payments of wages and expenses.

   (4) The following figures apply to recent and future months:

Month	*Materials received* ₹	*Sales* ₹	*Wages and Expenses* ₹
January	*20,000*	*30,000*	*9,500*
February	*22,000*	*33,000*	*10,000*
March	*24,000*	*36,000*	*10,500*
April	*26,000*	*39,000*	*11,000*
May	*28,000*	*42,000*	*11,500*
June	*30,000*	*45,000*	*12,000*
July	*32,000*	*48,000*	*12,500*
August	*34,000*	*51,000*	*13,000*

   (5) Cash balance at the beginning of April is ₹10,000.

   (6) All the products are sold immediately they have been made and that materials used and sums spent on wages and expenses during any particular month relate strictly to the sales made during that month.

   Prepare cash flow forecast month by month from April to July, profit and loss forecast for four months (April-July) and a movement of funds statement for the four months period (April-July).

   (**Answer**: Cash forecast from April to July: Closing balance-7,000; 4,500; 2,500; 1,000 Profit and Loss forecast for 4 months April-July-19,000 and Movement of Funds Statement- 1,000)

2. *A newly established company manufacturing two products furnishes the Cost Sheets as under:*

	Products ₹/unit	
	L	B
Direct Materials	*40*	*20*
Direct Labour	*30*	*15*
Variable Overheads	*14*	*7*
Selling Price	*100*	*50*

Fixed overheads excluding bank interest amount to ₹6,00,000 per annum spread out evenly throughout the year.

Sales forecast is as under:

Product	*July*	*August*	*Sept.*	*Oct.*	*November'2013*
L (Units)	*4,200*	*4,600*	*3,600*	*4,000*	*4,500*
B (Units)	*2,100*	*2,300*	*1,800*	*2,000*	*1,900*

Production: 75% of each month's sales will be produced in the month of sale and 25% in the previous month.

Sales Pattern:

L: One-third of sales will be on cash basis on which a cash discount of 2% is allowed.

One-third will be on documents against payment basis.

The documents will be discounted by the bank in the month of sales itself.

Balance of one-third will be on documents against acceptance basis.

The payment under this scheme will be received in the third month.

For e.g. for sales made in September, payment will be received in November.

B.: 80% of the sales will be against cash to be received in the month of sales and the balance 20% will be received next following month.

Direct materials: 50% of the direct materials required for each month's production will be purchased in the previous month and the balance in the month of production itself. The payment will be made in the month next following the purchase.

Direct Wages: 80% of the direct wages will be paid in the month of use of direct labour for production and the balance in the next following month.

Variable overheads: 50% to be paid in the month of incurrence and the balance in the next following month.

Fixed overheads: 40% will be paid in the month of incurrence and the other 40% in the next *following month. The balance of 20% represents depreciation.*

The bill discounting charges payable to the bank in the month in which the bills are discounted amount to 50 paise per ₹100 of bills discounted.

A cash balance of ₹1,00,000 will be maintained on 1st July, 2014.

Prepare a cash budget monthwise for July, August and September, 2014

(**Answer:** Closing Balance-1,03,062; 24,207; 40,894)

3. *Given below are the Balance Sheets of Alpha Limited and Beta Limited as on 31st March, 2014 :*

Balance Sheet

				‘000	
Liabilities	*Alpha Ltd.*	*Beta Ltd.*	*Assets*	*Alpha Ltd.*	*Beta Ltd.*
Share capital			*Gross Block*		
Equity Shares of			*Less : Depreciation*	812	917
₹10 each	500	400	*Investments*	100	300
9-1/2% Pref. shares of			*Current Assets, Loans*		
₹10 each	100	50	*and Advances :*		
Reserve and Surplus			*Inventories*	202	52
General Reserve	300	—	*Sundry Debtors*	152	64
P&L A/c	100	50	*Cash & Bank*	42	32
Secured Loan			*Deposits*	12	42
11% Term Loan	50	620	*Advances*	—	40
10% Debentures	100	100			
Unsecured Loan					
15% Bank Loan	20	20			
18% Short Term Loan	10	15			
Current Liabilities &					
Provisions :					
Sundry Creditors	10	10			
Outstanding Expenses	5	2			
Provision for Taxation	50	40			
Proposed Dividend	75	140			
	1320	1447		1320	1447

Find the capital structure ratios of the companies. Comment on their overall capital structure. Both the companies are willing to raise 3.2 lakhs rupees by issue of debentures. How do you react if 2 : 1 debt-equity ratio norm is to be followed ?

(**Answer**: Alpha – 0.76; 0.17; 0.49 and Beta-0.35; 1.48; 2.12)

4. Profit and Loss Account for the period ended 31.3.2014

	('000)		*('000)*
Particulars	*Amount*	*Particulars*	*Amount*
To Administrative Exp.	*300*	*By Gross Profit (after charging*	
To Selling & Dis. Exp.	*100*	*depreciation ₹1,00,000)*	*1250*
To Interest	*50*	*By Income from Investment*	*50*
To Loss on sales of Fixed Assets	*12*	*By Misc. Income*	*2*
To Goodwill written off	*15*		
To Tax provision	*412*		
To Net profit	*413*		
	1302		*1302*

Calculate debt-service coverage ratio. Current instalment of long term loan is ₹ 5 lakhs.

(**Answer**: 1.07)

5. Given below is the Balance Sheet of Ahuja Company as on 31.12.2013

	'000		*'000*
Liabilities	*₹*	*Assets*	*₹*
Share Capital-Equity		*Net Block*	*180*
shares of ₹10 each-	*100*	*Inventories*	*100*
General Reserve	*10*	*Sundry Debtors*	*40*
Capital Reserve	*15*	*Cash and Bank Balances*	*40*
Capital Redemption Reserve	*50*	*Profit & Loss A/c*	*20*
12% Convertible Debentures	*55*		
(convertible into equity			
shares by 31.3.2013 at a 10% premium)			
14% Debentures	*50*		
(25% Redeemable by 31.3.2013)			
Current Liabilities	*100*		
	380		*380*

The company plans to issue 14% fresh debentures at the debt-equity ratio of 2 : 1 excluding capital redemption reserve and capital reserve for which it has no cash backing. Tanuja Co. Ltd. wants to subscribe fully the fresh debentures of Ahuja Co. Ltd. You are asked to calculate the *amount needed to be set aside for this purpose. Also you are asked by Ahuja Co Ltd. to determine the proprietary ratio after conversion of debentures and fresh issue.*

(**Answer**: ₹2,52,500; 0.35)

6. Cost Structure : for 10,000 units of product 'X'

Raw Material	*₹ 7,00,000*
Wages	*₹ 2,50,000*
Manufacturing Exp. (70% fixed)	*₹ 3,50,000*
Admn. Exp. (100% fixed)	*₹ 1,00,000*
Selling Exp. (80% fixed)	*₹ 2,00,000*
	₹ 16,00,000

The company expects annual sales of 9,600 units and wants to maintain 1/2 months' sales in stock. It wants to offer 2 months' credit period and expects to receive 2 months' credit. It has to give trade advance amounting to ₹ 50,000. It wants to maintain 1 month's cost of production in cash balance. Its fixed assets were ₹ 12 lakhs. It will raise 16% short term loan from bank, but it has to maintain 2 : 1 current ratio. Also it will raise long term fund at the 2 : 1 debt equity ratio. It wants to earn 20% on sales. Draft the Balance Sheet of the Company.

(**Answer**: 20,50,334)

7. *Given below are the Profit and Loss Statement of Om Limited for the year ended 31st March, 2014 and Balance Sheet as on that date:*

Profit and Loss Statement

		₹ in lakhs	*₹ in lakhs*
	Sales		*7,850*
Less :	*Cost of goods sold*		*5,232*
	Gross Profit		*2,618*
Less :	*Administrative Expenses*	*240*	
	Selling & Distribution Expenses	*545*	
	Finance Charge	*280*	
	Depreciation	*540*	*1,605*
	Profit Before Tax		*1,013*
Less :	*Tax Provision*		*500*
	Net Profit		*513*
Less :	*Proposed dividend*		*400*
	Retained Earnings		*113*

Balance Sheet

Liabilities	*₹ in Lakhs*	*₹ in lakhs*	*Assets*	*₹ in lakhs*	*₹ in lakhs*
Share Capital (₹10 each)		*4,000*	*Gross Block*	*6,550*	
Reserve & Surplus	*2,000*		*Less: Accumulated depn.*	*1,540*	
Add : Retained Earnings	*113*	*2,113*	*Net Block*		*5,010*
Secured loans		*2,500*			
Unsecured loans	*1,500*		*Investments*		*2,500*
Current liabilities and provisions:			*Stock*	*1,500*	
Sundry Creditors	*550*		*Debtors*	*1,800*	
Tax Provision	*500*		*Cash at bank*	*700*	
Proposed dividend	*400*	*1,450*	*Cash in hand*	*53*	*4,053*
		11,563			*11,563*

You are required to show the following ratios :

1. *Gross yield percentage*
2. *Market value to book value per share*
3. *Price-earnings ratio*
4. *Market price to cash flow*

Market price per share may be taken as ₹30 which was arrived at by taking average share price for the month of March, 2014.

(**Answer**: 3.33%; 1.96; 23.39; 11.40)

8. *The following are the changes in the account balances taken from the Balance Sheet of PQ Ltd. as at the beginning and end of the year:*

	Changes in Rupees in debit or [credit]
Equity share capital 30,000 shares of ₹10 each issued and fully paid	*—*
Capital reserve	*[49,200]*
8% debentures	*[50,000]*
Debentures discount	*1,000*
Freehold property at cost/revaluation	*43,000*

Plant and machinery at cost	*60,000*
Depreciation on plant and machinery	*[14,400]*
Debtors	*50,000*
Stock and work-in-progress	*38,500*
Creditors	*[11,800]*
Net profit for the year	*[76,500]*
Dividend paid in respect of earlier year	*30,000*
Provision for doubtful debts	*[3,300]*
Trade investments at cost	*47,000*
Bank	*[64,300]*
	0

You are informed that:

(a) Capital reserve as at the end of the year represented realised profits on sale of one freehold property together with surplus arising on the revaluation of balance of freehold proper- ties.

(b) During the year plant costing ₹18,000 against which depreciation provision of ₹13,500 was lying, was sold for ₹7,000.

(c) During the middle of the year ₹50,000 debentures were issued for cash at a discount of ₹1,000.

(d) The net profit for the year was after crediting the profit on sale of plant and charging debenture interest.

You are required to prepare a statement which will explain, why bank borrowing has in- creased by ₹64,300 during the year end. Ignore taxation.

(**Answer**: Cash flow from operating, investing and financing activities- 30,500; (1,11,800); 17,000)

9. *Given below are the Balance Sheets of X Ltd. as on 31st March, 2012, 2013 and 2014.*

Liabilities	*31st March 2012*	*2013*	*2014*	*Assets*	*31st March 2012*	*2013*	*2014*
	(₹ in Lacs)				*(₹ in Lacs)*		
Share Capital	*70,00*	*75,00*	*75,00*	*Plant & Machinery*	*80,00*	*110,00*	*130,00*
Reserve	*12,00*	*16,00*	*25,00*	*Investments*	*35,00*	*30,00*	*45,00*
Profit & Loss A/c	*6,00*	*7,00*	*9,00*	*Stock*	*15,00*	*15,00*	*20,00*

12% Debentures	*10,00*	*5,00*	*10,00*	*Debtors*	*5,00*	*5,50*	*5,00*
Cash Credit	*5,00*	*7,00*	*12,00*	*Cash at Bank*	*5,00*	*3,00*	*3,25*
Creditors	*12,00*	*14,00*	*18,00*				
Tax Provision	*11,00*	*17,00*	*28,00*				
Proposed Div.	*14,00*	*22,50*	*26,25*				
	140,00	*163,50*	*203,25*		*140,00*	*163,50*	*203,25*

Other Information :

(i) *Depreciation : 2011-2012 ₹ 500 lacs; 2012-13 ₹ 700 lacs; and 2013-14 ₹ 775 lacs.*

(ii) *In 2013-14 a part of the 12% debentures was converted into equity at par.*

(iii) *In the last three years there was no sale of fixed assets.*

(iv) *In 2013-14 investment costing ₹ 500 lacs was sold for ₹ 510 lacs. The management is confused on the deteriorating liquidity position despite good profit earned by the enterprise.*

Identify the reasons. Fund Flow Analysis may be adopted for this purpose.

(**Answer**: 2012-13-Sources: 56,50; 78,00 and Applications; 5,50; 4,25)