CHAPTER 3: RATIO ANALYSIS.

Q1. What does *Ratio Analysis* Mean?

Ans: A tool used by individuals to evaluate the performance of a company. Ratio Analysis can be used for analysis of financial statements. As we all know Trading, Profit and Loss and Balance sheet are the major types of financial statements, ratios can be used for evaluation of performance of a company. Ratios are calculated from current year data and are then compared with previous years or with other companies, or with the industry, or even the economy to judge the performance of the company.

What is Ratio?
Ratio is the relationship between 2 variables; a ratio is the relationship between two numbers

Ratio analysis is not just comparing different numbers from the balance sheet, income statement, and cash flow statement, but it is comparing the data against previous years, other companies, the industry, or even the economy in general. Ratios look at the relationships between individual values and relate them to how a company has performed in the past, and might perform in the future.

Ratios are the important tool used by the investor for analysis of companies performance at the end of year as compared to last year.

Different types of Financial Statement

1. **Trading A/c:** Provides summary of operational transaction during the year
2. **Profit & Loss A/c:** Provides summary of non operation or indirect transaction of business
3. **Balance Sheet:** provides summary of Asset and liabilities during the period.

Q2 Enumerate different type of ratio

Ans: Broadly Ratios can be divided into 4 parts i.e.

Classification of Ratios

- **Profitability Ratio**
  1. **In Relation to Sales**
     a. Gross Profit Ratio
     b. Operating Ratio
     c. Operating profit Ratio
     d. Net Profit Ratio
     e. Expenses Ratio
  2. In Relation to investment
     a. Return on Investment
     b. Return on Equity
     c. Return on Total Resources
- **Activity Ratio**
  1. Inventory turnover Ratio
  2. Debtors Turnover Ratio
  3. Creditors Turnover Ratio
  4. Fixed Asset turnover Ratio
  5. Working Capital turnover Ratio
  6. Capital turnover Ratio
- **Solvency Ratio**
  - **Long term**
    1. Debt Equity Ratio
    2. Proprietary Ratio
    3. Fixed Asset ratio
    4. Capital Gearing Ratio
    5. Interest Coverage Ratio
  - **Short term**
    1. Current Ratio
    2. Liquidity Ratio
    3. Cash Ratio
    4. Working Capital Ratio

From exam point of view institute may ask two types of problem

a. Find out various ratio from financial statement and;
b. Preparation of financial statement from given ratio

TYPE ONE: FIND OUT VARIOUS RATIO FROM FINANCIAL STATEMENT

Q3 Define the term liquidity and enumerate different type of liquidity ratios?

Ans: The term liquidity denotes the ability of company to pay its short term debt, Generally liquidity position means the excess cash kept by a person for the fulfillment of their obligation. If firm does not maintain its liquidity position, it may lead to bankruptcy of the firm, generally short term lender and creditors of a business are very much interested to know its state of liquidity.

Basically there are two ratios which highlights the liquidity position of any firm, they are current ratio and quick ratio

Interpretation of Current ratio
Higher is the current ratio better is the position of firm
Ideal current ratio: 2:1

1. Current Ratio: It is ratio between current assets to current liabilities and can be calculated by using following formula,

Current ratio: Formula = Current assets/Current liabilities.

Where,

Current Asset= Inventories + Sundry Debtors + Cash and Bank Balances + Receivables/ Accruals + Loans and Advances + Marketable Investments

Current Liabilities= Creditors for goods and services + Short-term Loans + Bank Overdraft + Cash Credit + Outstanding Expenses + Provision for Taxation + Proposed Dividend + Unclaimed Dividend

Significance: Current ratio signifies the liquidity position of the firm, hence higher is the ratio better is the position, Too much liquidity is also not good, as opportunity cost is very high of holding such liquidity. This means that we are carrying either cash in large quantities or inventory in large quantities or receivables are getting delayed. All these indicate higher costs. Hence, if you are too liquid, you compromise with profits and if your liquidity is very thin, you run the risk of inadequacy of working capital.

2. Quick Ratio/Acid test ratio: Current ratio is only a broad indication of the liquidity of the company, as all assets cannot be exchanged for cash easily and hence for a more accurate measure of liquidity, we see "quick asset ratio" or "acid test ratio".

Quick ratio provides only picture of cash asset or near cash asset and it excludes the inventory element. Quick liabilities are that portion of current liability which is fall due immediately, and should be considered after deduction of bank overdraft and cash credit. The reason behind that is cash credit and bank O/D are the ongoing sources of finance and are required for continues purpose. Following is the formula used for calculation of quick ratio

Interpretation of Quick ratio
Higher is the Quick ratio better is the position of firm
Ideal current ratio: 1:1

Quick ratio= Quick assets/ Quick Liabilities

Where,

Quick Asset = Current Asset – Stock

Quick liability= Current Liability- Bank O/D and Cash credit

Significance: Coverage of current liabilities by quick assets. As quick assets are a part of current assets, this ratio would obviously be less than current ratio. **This directly indicates the degree of excess liquidity or absence of liquidity in the system and hence for proper measure of liquidity, this ratio is preferred**

3. Cash Ratio/ Absolute Liquidity Ratio: The cash ratio is an indicator of a company's liquidity that further refines both the current and the quick ratio by measuring the amount of cash, cash equivalents or invested funds in current assets to cover current liabilities. It can be found out by using following formula

Interpretation of Cash ratio
Higher is the cash ratio better is the position of firm
Ideal current ratio: 1:2

$$Cash\ Ratio = \frac{Cash + Cash\ equivalant}{current\ liabilities}$$

4. Net working capital ratio: Net working capital is the difference between current asset and current liabilities, It can be computed by deducting current liabilities from the current assets, It is just like current ratio, positive gap denotes better position, whereas negative gap denotes adverse situation

Net working capital = Current Asset – Current Liabilities

Concept problem on Liquidity

Concept problem 1

As a financial manager of ABC ltd you are required to evaluate the liquidity position of ABC ltd from following details,

Balance Sheet of ABC Ltd
As on 31st March 2011

(Rs in thousands)

Liabilities	Amount (Rs)	Asset	Amount (Rs)
Equity capital @ 10 each	500	**Fixed Asset**	
Reserve and surplus	250	Land and Building	500
8% Preference capital @ 100 each	150	Plant and machinery	350
12% Bank Loan	80	Furniture and fixture	200
Current Liabilities		**Total fixed Asset**	1050
Sundry creditors	20	Less: Depreciation	(150)
Bills payable	25	**Net fixed Asset**	900
Bank overdraft	15	**Current Asset**	
Outstanding expenditure	5	Stock In trade	15
		Sundry debtors	55
		Cash	25
		Bank	35
		Preliminary Exp	15
Total	**1045**	**Total**	**1045**

Also give your valuable comment in each case

Concept problem 2

Following is the balance sheet of DJ and Co. as on 31st March 2011

(Rs in Thousands)

Liabilities	Amount (Rs)	Asset	Amount (Rs)
Equity capital @ 10 each	400	**Fixed Asset**	
General Reserve	150	Land and Building	400
Profit and Loss A/c	60	Plant and machinery	450

10% Preference capital @ 100 each	250	Furniture and fixture	150
15% Bank Loan	50	**Total fixed Asset**	**1000**
Unclaimed dividend	10	Less: Depreciation	(200)
Sundry creditors	25	**Net fixed Asset**	**800**
Bills payable	30	Loans and advances	85
Bank overdraft	25	Inventory	25
Outstanding expenditure	5	Sundry debtors	45
Provision for tax	10	Cash	15
		Bank	25
		Preliminary Exp	20
Total	**1015**	**Total**	**1015**

Find out the liquidity ratio and also provide your valuable comment in each case above

Q5. Discuss the various ratios used as capital structure ratio

Ans: These ratios are also called as long term solvency ratios. the capital structure/leverage ratios may be defined as those financial ratios which measure the long term stability and structure of the firm. A company is said to financially sound if it is in a position to carry on its business smoothly and meet all its obligations both short term and long term without any strain. Capital structure ratio denotes the position of firm to meet its long liabilities

These ratios can be subdivided into 2 parts

A. **Capital Structure Ratio**
B. **Coverage Ratio**

A. **Capital Structure ratio:** Capital structure is the mix of equity and debt; we can also call it as mix of external fund and internal fund. These ratios shows the dependence of firm on internal funds as well as external funds, Here equity means equity capital, Reserve and surplus and preference capital.

External fund or Debt includes only Long term sources of finance; following are some ratio under this category.

1. **Equity Ratio:** It is the ratio between shareholder equity to total capital employed

$$Equity\ ratio = \frac{shareholder fund}{Total\ Capital\ Employed}$$

Interpretation of Equity Ratio

This ratio indicates proportion of owners fund to total fund invested in the business, hence high the proportion of owner's equity, lower will be the risk

Significance: The Equity Ratio is a good indicator of the level of leverages used by a company. The Equity Ratio measures the proportion of the total assets that are financed by stockholders, and not creditors. A low equity ratio will produce good results for stockholders, as long as the company earns a rate of **Return on asset s** that is greater than the interest rate paid to creditors.

2. **Debt Ratio:** It is the ratio between long term debt to capital employed

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

Interpretation of Debt capital Ratio

This ratio indicates proportion of long term fund to total fund invested in the business, hence high the proportion of Loan fund, higher will be the risk

Significance: The debt ratio is a good indicator of the level of leverages used by a company. The Debt Ratio measures the proportion of the total assets that are financed by creditors. A high debt ratio will produce good results for stockholders, as long as the company earns a rate of **Return on asset s** that is greater than the interest rate paid to creditors.

3. **Debt Equity Ratio or leverage ratio:** It is proportion of debt to equity, this ratio indicates the proportion of debt in relation equity. Debt equity ratio is indicator of leverage.

$$Debt\ equity\ Ratio = \frac{Long\ term\ debt}{Equity}$$

Interpretation of Fixed Asset Ratio
This ratio indicates proportion of long term fund used to acquire fixed Asset, hence if ratio is less than one, it shows the better situation.
IDEAL Fixed Asset Ratio: 0.67 times
Significance: Long term funds can be used for acquisition of fixed asset as well as for working capital purpose, hence ratio indicates whether firm has followed the sound financial practices or not, if ratio is 1, it shows that company has used working capital for acquisition of fixed Asset which might pull the company in adverse situation.

4. **Fixed Asset Ratio:** The ratio indicates up to which extent the fixed asset acquired by using long term fund, it can be expressed by using following formula

$$\boldsymbol{Fixed\ Asset\ Ratio} = \frac{Fixed\ Asset}{Long\ Term\ fund}$$

Interpretation of Debt Equity Ratio
This ratio indicates the proportion of long term funds to owner funds invested in the business, hence lower debt equity proportion better is the position.
Significance: A high debt equity ratio here means less protection for creditors. A low ratio, on the other hand, indicates a wider safety to owner. This ratio is much significant in capital structure decisions as well as in the legislation dealing with the capital structure decisions (i.e. issue of shares and debentures). Lenders are also very keen to know this ratio since it shows relative weights of debt and equity. Ratio shows the dependency of firm on outsiders as the excessive dependence on outsiders' funds may cause insolvency of the business which is risky.

5. **Proprietary Ratio:** The Ratio indicates the portion of tangible assets acquired from the amount of shareholders equity or indirectly it is portion of total tangible asset in shareholders' funds, it can be expressed by using following formula

$$\boldsymbol{Proprietary\ Ratio} = \frac{Share\ holder\ fund}{Total\ Tangible\ Asset}$$

Interpretation of Proprietary Ratio
This ratio indicates proportion of Tangible asset in total shareholder funds, hence higher the ratio better is the situation.
IDEAL Proprietary Ratio: There is standard or Ideal Ratio
Significance: This ratio indicates the general financial position of business concern. This ratio is useful for creditors, who can as ascertain the proportion of shareholders fund in the total asset of the business, A high proprietary ratio will indicate a relatively less danger situation to the creditors or vise versa in the event of forced reorganization or winding up of the company.

Some Important terminology

- **Share holders fund (or) Equity (or) Proprietary fund (or) Owners fund (or) Net worth** = Equity share + Preference share + Reserves and surplus – P & L a/c – Preliminary Expenses.
- **Debt (or) Long term liability (or) Long term loan fund** = Secured loan (excluding cash credit) + unsecured loan + Debentures.
- **Total Tangible asset** = Total assets as per Balance sheet – Preliminary expenses.
- **Total liability** = Long term liability + Current liability (or) short term liability
- **Long term fund or Capital Employed** = Total asset – Current liability = Share holders fund + long term loan fund.

Concept Problem on capital structure ratio

Concept problem 3

As a Management consultant of ABC ltd you are required to evaluate the liquidity position as well as find out the capital structure ratio of ABC ltd and compare same with XYZ Ltd, from following details,

Balance Sheet of ABC Ltd and XYZ Ltd

As on 31st March 2011

(Rs in thousands)

Liabilities	ABC LTD	XYZ LTD	Asset		Amount (Rs)
Equity capital @ 10 each	400	500	**Fixed Asset**		
Reserve and surplus	180	250	Land and Building	450	500
8% Preference capital @ 100 each	160	150	Plant and machinery	250	350
12% Bank Loan	100	80	Furniture and fixture	180	200
Current Liabilities			**Total fixed Asset**	880	1050
Sundry creditors	25	18	Less: Depreciation	(80)	(150)
Bills payable	35	35	**Net fixed Asset**	800	900
Cash Credit	18	10	**Current Asset**		
Outstanding expenditure	-	5	Stock In trade	25	15
			Sundry debtors	58	55
			Cash	15	25
			Bank	20	35
			Preliminary Exp	-	18
Total	**918**	**1048**	**Total**	**918**	**1048**

Also give your valuable comment in each case

Concept problem 4

Following is the balance sheet of JD and Co. as on 31st March 2011, and 31 st march 2010

(Rs in Thousands)

Liabilities	March 2011	March 2010	Asset	March 2011	March 2010
Equity capital @ 10 each	400	300	**Fixed Asset**		
General Reserve	150	120	Land and Building	400	300
Profit and Loss A/c	60	45	Plant and machinery	450	200
10% Preference capital @ 100 each	250	200	Furniture and fixture	150	200
12% Bank Loan	50	30	**Total fixed Asset**	**1000**	**700**
Unclaimed dividend	10	5	Less: Depreciation	(200)	(100)
Sundry creditors	25	30	**Net fixed Asset**	**800**	**600**
Bills payable	30	12	Loans and advances	85	85
Bank overdraft	25	18	Inventory	25	20
Outstanding expenditure	5	3	Sundry debtors	45	26
Provision for tax	10	8	Cash	15	10
			Bank	25	20
			Preliminary Exp	20	10
Total	**1015**	**771**	**Total**	**1015**	**771**

Find out the Short term solvency position as well as long term solvency position and also provide your valuable comment in each case above

Concept problem 5

From the following figures relating to the accounts of Alpha Ltd. comment upon the present state and trend in respect of Long term solvency and short term of the company

Consider only two significant ratios under each head.

	2010 Rs.	2011 Rs.
Sales	12,00,000	15,00,000
Net block	5,00,000	8,00,000
Receivables	2,00,000	2,95,000
Payables	1,00,000	2,00,000
Cash and bank	50,000	20,000
Closing stock	2,00,000	4,00,000
Bank O/D	1,00,000	2,50,000
Purchases	9,00,000	12,00,000
Expenses	1,00,000	1,50,000
Depreciation	75,000	1,20,000
Interest on O/D	15,000	40,000
Loan	-	2,00,000
Interest on loan	-	35,000
Share capital	4,00,000	4,00,000
Reserve & surplus	1,90,000	2,07,500
Provision for income tax	1,20,000	1,97,500
Proposed dividend	40,000	60,000
Stock on 1.4.2009	Rs. 1,80,000	

B. Coverage Ratio: This is one of the type of long term solvency ratio, coverage ratio denotes the ability of company to cover the fixed charges. The coverage ratios measure the firm's ability to meet the fixed liabilities. The fixed cost consists of:

(i) Interest on loans
(ii) Preference dividend
(iii) Repayment of the installment of loans or redemption of Preference capital on maturity.

The following are important coverage ratios:

1. **Interest Coverage Ratio:** The "**Interest coverage ratio**" or **Times-interest- earned** is used to test the firm's ability to service the interest (and other fixed cost element) this ratio computed as

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

Where,
EBIT= Earnings before interest and tax
Interest = Fixed financial charges on borrowing

Interpretation of interest coverage ratio And significance: It denotes the number of times the interest charges are covered by operating income. A high interest coverage ratio means that an enterprise can easily meet its interest obligation and a lower ratio indicates excessive use of debt or inefficient operation which might be risky situation for firm

2. **Debt service coverage ratio:** This ratio indicates the ability of company to pay off current interest and principal amount. Debt service coverage ratio (DSCR) essentially calculates the repayment capacity of borrower, this can be found out by using following formula

$$DSCR = \frac{Earnings\ available\ for\ debt\ service}{Interest + Installment}$$

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.

Interpretation of Debt Service coverage ratio And its significance: This ratio denotes the ability of person to pay the installment and principle amount, hence higher is the ratio better is the situation. This ratio is generally used by lender for evaluation of borrowers ability, higher ratio indicates that borrower will make payment in time

3. **Preference Dividend coverage ratio:** This ratio denotes the ability of company to pay preference dividend on preference share capital. A measure of a publically-traded company's ability to pay dividend to preferred stockholders. It is calculated by taking the company's net income and dividing it by the total preferred dividends it must pay.

$$PDCR = \frac{Earnings\ after\ tax}{Preference\ dividend\ liability}$$

Interpretation of preference dividend coverage ratio And its significance: A ratio over 1 indicates that the company is able to make dividend payments, while a ratio below 1 indicates that it cannot. The preferred dividend coverage ratio is particularly important because dividends to preferred stockholders are set and guaranteed. Failure to pay them can be highly detrimental to the company because preferred stockholders, under some circumstances, can force its liquidation to receive back dividends.

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

   Following is the formula useful for calculation of capital gearing ratio

Interpretation: This ratio indicates that how fast inventory is used/sold. A high ratio is good from the view point of liquidity and vice versa. A low ratio would indicate that inventory is not used/ sold/ lost and stays in a shelf or in the warehouse for a long time.

$$Capital\ Gearing\ Ratio = \frac{Preferance\ Share\ Capital + Debenture + Long\ Term\ Loan}{(Equity\ Share\ Capital\ + Reserve\ and\ Surplus\ - Losses)}$$

Always Remember!
Suppose, in exam problem opening stock is not given assume it as zero **or** take closing stock as Average inventory.

Concept Problem on coverage Ratio

Concept problem 6

SS Ltd Provides you following information, find out there long term solvency by using coverage ratio for year ended on march 2010 and 2011, also compare and comment on the position

Particulars	***March 2010***	***March 2011***
Sales	450000	512500
Opening Stock	18000	25670
Purchases	258760	315670
Closing stock	25670	30250
Wages	12300	15600
Direct expenses	15350	16000
Administration expenses	25000	32100
Selling expenses	18970	21690
Equity Capital @ 10 each	300000	350000
Reserve and Surplus	180000	200000
12% preference Capital @100 each	120000	180000
8% Debenture @ 100 each	135000	121500
Depreciation on fixed Asset	28000	25000

Debentures are redeemable in 10 yearly installments, and company is in 50% tax bracket

Concept problem 7

Shruti PVT Ltd wants a loan from YES Bank and provides the following information for its affairs for the year 2011 and 2012

Particulars	***March 2010***	***March 2011***
Sales	850000	917500

Opening Stock	38000	55670
Purchases	458760	515670
Closing stock	55670	60250
Wages	23300	25600
Direct expenses	35350	26000
Administration expenses	35000	52800
Selling expenses	68970	41690
Equity Capital @ 10 each	500000	650000
Reserve and Surplus	200000	250000
15% preference Capital @100 each	220000	280000
10% Debenture @ 100 each	235000	188000
Depreciation on fixed Asset	48000	42000
Loss on sale of fixed Asset	32000	-
Profit on sale of Investment	-	25000

Debentures are redeemable in 5 yearly installments, and company is in 40% tax bracket

Q6. Discuss The Various Turnover/Activity Ratios.

Ans: These ratios are known as efficiency ratios. As we know funds of creditors and owners are invested in various asset to generate sales and profit. The better the management of asset will results in larger amount of sales. These ratios are employed to evaluate the efficiency with which the firm manages and utilises its assets. These ratios are usually calculated with reference to sales or Cost of goods sold, these ratios always expressed in terms of time. Following are some important activity ratios,

1. **Inventory Turnover Ratio:** This ratio denotes the efficiency of the firm in producing and selling its product. It establish the relationship between cost of goods sold/sales with Average inventory.

$$Inventory\,Turnover\,Ratio = \frac{Cost\ Of\ goods\ sold\ Or\ Sales}{Average\ Inventory}$$

Where,

Cost of goods sold = Opening stock + Purchases + Direct Exp – Closing Stock

Or

Sales – Gross Profit

Average Inventory = $\dfrac{Opening\ stock + Closing\ Stock}{2}$

2. **Inventory Holding Period:** This ratio indicates the time for which inventory held by the company. It indicates the age of inventory. Age denotes the time period requires for conversion of stock into cash. This can be calculated by using following formula,

$$Inventory\,holding\,period = \frac{365\ days}{Inventory\ turnover\ ratio}$$

This ratio can be calculated on the basis of month also

Interpretation: It indicates average period required for conversion of inventory into sales. Lower the time better is the situation

3. **Debtor's turnover ratio:** In case firm sells goods on credit, the realization of sales Revenue is delayed because of various debtors' policy and the receivables are created. The cash is realised from these receivables later on. The speed with which these receivables are collected affects the liquidity position of the firm. The debtor's turnover ratio throws light on the collection and credit policies of the firm. It is calculated as follows:

Interpretation: This indicates the efficiency of collection of receivables and contributes to the liquidity of the system. This ratio indicates that how fast debtors can be converted into cash. A high ratio is good from the view point of liquidity and vice versa.
IDEAL Ratio: 3 to 4 times

$$\text{Debtors turnover ratio} = \frac{\text{Credit sales}}{\text{Average Debtors}}$$

Where,

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

Always Remember!
Suppose, in exam problem opening Debtors are not given assume it as zero **or** take closing debtors as Average inventory.

Note: Term Debtors includes Sundry debtors and bills receivable

4. **Average collection period:** It is average period required for conversion of debtors into cash. In other words it is the time taken by the debtors for payment of their dues. Following is the formula used for calculation debtors period,

$$\text{Average collection period} = \frac{365\text{ Days}}{\text{Debtors turnover ratio}}$$

Average collection period can be denoted in terms of month also

Interpretation: this ratio indicates the recovery period required for collection of receivable amount from debtors. Hence lower is the period better is the situation

5. **Creditor's turnover ratio:** The ratio indicates the time lag required for payment of debt, the creditors rnover ratio indicates payment policy of companies. It signifies the credit period enjoyed by the firm in paying creditors. Accounts payable include both sundry creditors and bills payable. Same as debtor's turnover ratio, **creditors turnover ratio** can be calculated by using following formula

$$\text{Creditors turnover ratio} = \frac{\text{Credit purchases}}{\text{Average Creditors}}$$

Interpretation: A low creditor's turnover ratio reflects liberal credit terms granted by supplies. While a high ratio shows that accounts are settled rapidly.

Note: Creditors includes both Creditors as well as Bills payable

6. **Average Payment Period:** It is just like average collection period which is used in case of debtor's collection period. It is the average period provided by creditors for payment of their dues. In short it is the period used for payment of dues. Following is the formula used for calculation of creditors period,

$$\text{Average Payment period} = \frac{365\text{ days}}{\text{Creditors Turnover Ratio}}$$

Interpretation: this ratio indicates the Average period required for Payment of dues, hence higher is the period better is the situation

Alternatively, one can use month also for calculation of Average payment period

7. **Fixed Asset Turnover Ratio:** The ratio indicates the extent to which the investment in fixed assets has contributed towards sales. The ratio can be calculated as follows:

$$\text{Fixed Asset turnover Ratio} = \frac{\text{Net Sales}}{\text{Fixed Asset}}$$

Interpretation: this ratio indicates the **Number of times fixed assets has turned into sales,** it shows that whether fixed asset utilized in proper manner or not, hence higher the ratio better the utilization of asset

8. **Working capital Turnover ratio:** This provides some useful information as to how effectively a company is using its working capital to generate sales. A high turnover ratio indicates that management is being extremely efficient in using a firm's short-term asset and liabilities to support sales. This can be enumerate by using following formula,

$$\text{Working capital Ratio} = \frac{\text{Sales}}{\text{Net working Capital}}$$

Interpretation: This ratio indicates how efficiently company is using its working capital toward its sales, high ratio indicates better utilization of the fund.

9. **Capital Turnover Ratio:** The ratio indicates the

number of times the capital employed has been rotated in the process of doing a business. The ratio is computed as Follows:

$$Capital\ Turnover\ Ratio = \frac{Sales}{Total\ capital\ Employed}$$

Interpretation: It indicates the firm's ability to generate sales per rupee of capital employed. High ratio indicates more efficient management and utilization of capital employed.

10. Current Asset turnover ratio: The ratio establish the relationship between net sales and current asset this ratio indicates the efficiency with which the current assets are used following is the formula useful for calculation of current turnover ratio,

$$Current\ Asset\ turnover\ Ratio = \frac{Sales}{Current\ Asset} = \cdots Times$$

Interpretation: It indicates the firm's ability to generate sales per rupee of current Asset. High ratio indicates more efficient management and efficient utilization of current asset.

11. Total Asset turnover Ratio: The ratio establish the relationship between net sales and Total Asset this ratio indicates the efficiency with which the total assets are used following is the formula useful for calculation of Total Asset turnover ratio,

$$Total\ Asset\ turnover\ Ratio = \frac{Sales}{Total\ Asset} = \cdots Times$$

Interpretation: It indicates the firm's ability to generate sales per rupee of total Asset. High ratio indicates more efficient management and efficient utilization of total asset.

Where,

Total Asset = Total Asset – Preliminary Expenses

Concept Problem on Turnover Ratio

Concept problem 8

[Calculation of turnover ratio when both opening and closing balance sheet is given]

Following is the balance sheet of G Ltd. as on 31st March 2011, and 31 st march 2010

(Rs in Thousands)

Liabilities	March 2011	March 2010	Asset	March 2011	March 2010
Equity capital @ 10 each	400	300	**Fixed Asset**		
General Reserve	150	120	Land and Building	400	300
Profit and Loss A/c	60	45	Plant and machinery	450	200
10% Preference capital @ 100 each	250	200	Furniture and fixture	150	200
12% Bank Loan	50	30	**Total fixed Asset**	**1000**	**700**
Unclaimed dividend	10	5	Less: Depreciation	(200)	(100)
Sundry creditors	25	30	**Net fixed Asset**	**800**	**600**
Bills payable	30	12	Loans and advances	85	85
Bank overdraft	25	18	Inventory	25	20
Outstanding expenditure	5	3	Sundry debtors	45	26
Provision for tax	10	8	Cash	15	10
			Bank	25	20
			Preliminary Exp	20	10
Total	**1015**	**771**	**Total**	**1015**	**771**

Other information

Particulars	March 2009	March 2010	March 2011
Sales During the year	800	1100	1200

Purchases	400	600	750
Opening stock	12	15	20
Closing stock	15	20	25
Direct exp	18	12	13
Debtors	20	26	45
Creditors	12	30	25
Bills Payable	16	12	30

Calculate the turnover Ratio for G Ltd and Compare the same

Concept problem 8

[Calculation of turnover ratio when closing balance sheet is given]

As a financial manager of ABC ltd you are required to evaluate the turnover of ABC ltd from following details,

Balance Sheet of ABC Ltd
As on 31st March 2011

(Rs in thousands)

Liabilities	**Amount (Rs)**	**Asset**	**Amount (Rs)**
Equity capital @ 10 each	500	**Fixed Asset**	
Reserve and surplus	250	Land and Building	500
8% Preference capital @ 100 each	150	Plant and machinery	350
12% Bank Loan	80	Furniture and fixture	200
Current Liabilities		**Total fixed Asset**	1050
Sundry creditors	20	Less: Depreciation	(150)
Bills payable	25	**Net fixed Asset**	900
Bank overdraft	15	**Current Asset**	
Outstanding expenditure	5	Stock In trade	15
		Sundry debtors	55
		Cash	25
		Bank	35
		Preliminary Exp	15
Total	**1045**	**Total**	**1045**

Other Information: Sales made during the year are Rs 1, 50,000, Purchases during the year are Rs 65,000.

Concept problem 9

[Calculation of turnover ratio when closing balance sheet is given]

Following is the balance sheet of DJ and Co. as on 31st March 2011

(Rs in Thousands)

Liabilities	**Amount (Rs)**	**Asset**	**Amount (Rs)**
Equity capital @ 10 each	400	**Fixed Asset**	
General Reserve	150	Land and Building	400
Profit and Loss A/c	60	Plant and machinery	450
10% Preference capital @ 100 each	250	Furniture and fixture	150
15% Bank Loan	50	**Total fixed Asset**	**1000**
Unclaimed dividend	10	Less: Depreciation	(200)
Sundry creditors	25	**Net fixed Asset**	**800**
Bills payable	30	Loans and advances	85
Bank overdraft	25	Inventory	25
Outstanding expenditure	5	Sundry debtors	45
Provision for tax	10	Cash	15
		Bank	25

		Preliminary Exp	20
Total	**1015**	**Total**	**1015**

Other Information: Sales made during the year are Rs 3, 50,000, Purchases during the year are Rs 1,75,000.

Concept problem 10

[Calculation of turnover ratio when both opening and closing balance sheet is given]

ABC Ltd appointed you as management consultant and requested to calculate the turnover ratio of ABC LTD, for the year march 2011 from following balance sheet

Balance Sheet of ABC Ltd

As on 31st March 2011

(Rs in thousands)

Interpretation: This ratio indicates the average return earned on sale of Rs 100. This ratio useful for evaluation of operating result of a company, this ratio provides the idea about the margin available to cover the operating expenses. Hence, higher the ratio, the more efficient the production or purchases.

Liabilities	March 2010	March 2011	Asset	March 2010	March 2011
Equity capital @ 10 each	400	500	**Fixed Asset**		
Reserve and surplus	180	250	Land and Building	450	500
8% Preference capital @ 100 each	160	150	Plant and machinery	250	350
12% Bank Loan	100	80	Furniture and fixture	180	200
Current Liabilities			**Total fixed Asset**	880	1050
Sundry creditors	25	18	Less: Depreciation	(80)	(150)
Bills payable	35	35	**Net fixed Asset**	800	900
Cash Credit	18	10	**Current Asset**		
Outstanding expenditure	-	5	Stock In trade	25	15
			Sundry debtors	58	55
			Cash	15	25
			Bank	20	35
			Preliminary Exp	-	18
Total	**918**	**1048**	**Total**	**918**	**1048**

During the year 2011 company made a sale of Rs 4,50,000. And purchases of Rs. 2,12,500.

Q7. Discuss The Various Types of Profitability Ratios?

Ans: This ratio denotes the profitability position of the business. These ratios give an indication of the efficiency with which the operations of business are carried on. This ratio indicates business's ability to generate the earnings compared to its expenses and other relevant cost incurred during a specific period of time the profitability ratios, this ratios indicates the operating efficiency of business

This ratio can be divided into 3 parts

1. In Relation to sales
2. In Relation to investment
3. Other profit related ratio

1. Profitability ratio based on sales

a. Gross profit ratio: This ratio indicates the relationship between gross profit and sales. Gross profit indicates the operational efficiency of the business. This can be computed by using following formula,

$$Gross\ Profit\ Ratio = \frac{Gross\ Profit}{Sales} x\ 100 = \cdots\%$$

Interpretation: The ratio helps in determining the efficiency with which the affairs of a business are being managed. Constant increase in the above ratio year after year is a definite indication of improving conditions of the business. Hence, higher the ratio, the more efficient are the operation of company.

Where,

Gross Profit = Sales – (Opening stock+ purchases + Direct Expenses – Closing Stock)

b. Net Profit Ratio: This Ratio indicates the relationship between net profit and sales. The ratio indicates net margin earned on a sale of Rs. 100. It is calculated as follows:

$$Net\ profit\ Ratio = \frac{Net\ Profit}{Sales} x\ 100 = \cdots\%$$

c. Operating Ratio: A ratio that shows the efficiency of a company's management by comparing operating expense to net sales. This is addition to net profit ratio following is the formula useful for calculation of operating Ratio

$$Operating\ Ratio = \frac{Operating\ Cost}{Sales} x100$$

Where,

Operating Cost = Cost of goods sold + Operating Exp.

Operating Exp = Administration Expenses + Selling and distribution expenses + Interest on short term loans etc.

Interpretation: This ratio is a test of the efficiency of the management in their business operation. It is a means of operating efficiency. In normal conditions, the operating ratio should be low enough so as to leave portion of the sales sufficient to give a fair return to the investors.
Hence, lower the ratio better is the situations

Always Remember!
Operating Cost includes only operating expenses or in other term it is called as EBIT. It specifically exclude financial cost i.e. Interest on Long term loan etc

d. **Operating Profit Ratio:** The ratio indicates how much profit a company makes after paying its variable cost and fixed cost. It is expressed as a percentage of sales and shows the efficiency of a company controlling the costs and expenses associated with business operations. Phrased more simply, it is the return achieved from standard operations and does not include unique or one time transactions. Terms used to describe operating profit margin ratios this includes operating margin, operating income margin, operating profit margin or return on sales (ROS). Following is the formula useful for calculation of Operating profit ratio

$$Operating\ Profit\ Ratio = \frac{Operating\ Profit}{Sales} x\ 100$$

Shortcut Formula
Operating profit=
100 – Operating cost Ratio

Where,

Operating Profit = Sales – Cost of Goods Sold – Operating Expenses

Or

Gross Profit – Operating Expenses

In relation to Investment

1. **Return on Total Asset:** This ratio indicates a company's earnings before interest and taxes (EBIT) against its total net assets. The ratio is considered an indicator of how effectively a company is using its assets to generate earnings before contractual obligations must be paid. This Ratio can be calculated by using following formula;

$$Return\ On\ Asset = \frac{Return}{Total\ Asset} x100 = \cdots\%$$

Interpretation: This Ratio denotes firm's ability of generating profit per rupee of total asset. Higher the ratio, the more efficient management utilization of asset

Where,

Return = Earnings before interest and tax

Total Asset = Total Asset As per balance sheet- Fictitious asset)

Return on Capital Employed/ return on investment: This Ratio develops the relationship between Return and capital employed. The prime objective of making investments in any business is to obtain satisfactory return on capital invested. Hence, the return on capital employed is used as a measure of success of a business in realizing this objective. Here capital employed and operating profit is the main item. Return on Capital Employed ratio also indicates whether the company is earning sufficient revenues and profits in order to make the best use of its capital assets. This Ratio can be formed by using following formula

$$Return\ On\ Asset = \frac{Return\ or\ Operating\ Profit}{Capital\ Employed} x100 = \cdots\%$$

Where,

Return or operating profit = Earnings before interest and tax,

Capital Employed

Liability Side Approach		Amt Rs	Asset side Approach		Amt Rs
Add			***Add***		
	Equity Share Capital	XXX		Fixed Asset	XXX
	Reserve and Surplus	XXX		Current Asset	XXX
	Preference Capital	XXX		**Total Asset**	**XXX**
	Long Term Loan	XXX	***Less***		
Less	Fictitious Asset	XXX		Current Liabilities	XXX
	Non trade Investment	XXX			
	Total capital Employed	**XXX**	**Total capital Employed**		**XXX**

Interpretation: Return on capital employed ratio is considered to be the best measure of profitability in order to assess the overall performance of the business. It indicates how well the management has used the investment made by owners and creditors into the business. It is commonly used as a basis for various managerial decisions. As the primary objective of business is to earn profit, higher the return on capital employed, the more efficient the firm is in using its funds. The ratio can be found for a number of years so as to find a trend as to whether the profitability of the company is improving or otherwise.

2. **Return on shareholders' Fund:** This ratio indicates the profit available for shareholder of company; The **Return On Shareholders' Funds (ROSF) ratio** has historically been used by industry investors as a measure of the profit for the period which is available to the owner's stake in a business. The *Return On Shareholders' Funds ratio* is therefore a measure of profitability. This measure of profitability is calculated by using the formula given below:

$$Return\ on\ shareholders'\ Fund = \frac{Net\ profit\ after\ \ interest\ and\ tax}{Shareholder\ Fund}$$

Where,

Shareholders Fund = Equity capital + Reserve and surplus + Preference share capital – Preliminary expenses

3. **Return on Equity shareholders' Fund:** This Ratio indicates the profit available to equity shareholder after payment of preference dividend but before payment of equity dividend. The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. It expressed in the percentage and calculated as:

$$Return\ on\ equity\ shareholders\ Fund = \frac{Net\ profit\ after\ tax\ and\ Preference\ Dividend}{Sales} x\ 100$$

Interpretation of Return on shareholder fund and on equity shareholders fund

These ratios are one of the most important ratios used for measuring the overall efficiency of a firm. As the primary objective of business is to maximize its earnings, this ratio indicates the extent to which this primary objective of businesses being achieved. This ratio is of great importance to the present and prospective shareholders as well as the management of the company. As the ratio reveals how well the resources of the firm are being used, higher the ratio, better are the results. First ratio out of above two indicates the profit available to owned fund i.e. equity capital and preference capital and second ratio gives idea about the profit available to equity share holder only The inter firm comparison of this ratio determines whether the investments in the firm are attractive or not as the investors would like to invest only where the return is higher.

3. Other Profit Related Ratios (Market value Ratios): It includes some ratios which are not directly called as profitability but indirectly we can refer them as profitability ratio

1. Dividend per share: The the sum of declared dividends for every ordinary (Equity) share issued. Dividend per share (DPS) is the total dividends paid out over an entire year (including interim dividends but not including special dividends) divided by the number of outstanding ordinary shares issued. It is most often used for calculation of dividend yield ratio, dividend coverage ratio and dividend payout ratio. However Dividend per share can be calculated separately for separate class eg. Equity, preference Capital etc. following is the formula useful for calculation of Dividend per share.

$$Dividend\ per\ share = \frac{Total\ Dividend}{No\ of\ Share}$$

Interpretation: Higher the dividend better is the situation for shareholder, but for company it may not be a good one. As high payment of dividend leads to high amount of cash outflow, this results lesser amount available for capital investment.

Where,

Total dividend= Total dividend paid to equity shareholder or to preference share holder.

No of Share = Number of equity shares or Preference shares as the case may be.

2. Earnings per share: Earnings are the part of profit available to the equity share holder after payment of all obligations like interest, taxes and preference dividend. This portion of earnings available to ordinary shareholders after payment of preference dividend following is the formula useful for calculation of Earnings per Share.

Interpretation: Higher earnings per share better is the position of company. it shows ability of company to earn the return on every rupee invested

$$Earnings\ Per\ Share = \frac{Earnings\ Available\ to\ equity\ shareholder}{No\ of\ oustanding\ Share}$$

Where,

Earnings= Profit after tax – Preference dividend

3. Dividend Payout Ratio: This ratio indicates the portion of earning distributed as dividend to ordinary shareholder. Out of total earnings company keeps some portion for future contingencies or for investment in future. This ratio is called as DPS to EPS ratio. The remaining amount after the payment of dividend is referred as retained earnings. Following is the formula for calculation of Dividend payout ratio.

Interpretation: Higher the Dividend Payout Ratio better is the situation for shareholder, but for company it may not be a good one. As high payment of dividend leads to high amount of cash outflow, this results lesser amount available for capital investment.

$$Dividend\ payout\ Ratio = \frac{Dividend\ Per\ Share}{Earnings\ Per\ Share} x100$$

4. Dividend yield ratio: The ratio measures the relationship between Dividend per share and market price of ordinary shares. Following is the formula useful for calculation of Dividend yield

$$Dividend\ yield\ Ratio = \frac{Dividend\ Per\ Share}{Market\ Price\ Per\ Share} x100$$

Interpretation: It indicates the return received on current market price. It indicates the return as % of market price, hence Higher the ratio better is the position

5. **Earnings yield ratio:** The ratio measures the relationship between Earnings per share and market price of ordinary shares. Following is the formula useful for calculation of Earning yield

$$\textit{Earnings yield Ratio} = \frac{\textit{Earnings Per Share}}{\textit{Market Price Per Share}} x100$$

Interpretation: It indicates the Earnings received on current market price. It indicates the earnings as % of market price, hence Higher the ratio better is the position

6. **Price Earnings Ratio:** This ratio indicates the relationship between price per share and earnings per share this ratio indicates portion of price covered by earnings. This Ratio can be calculated by using following formula;

$$\textit{Price} - \textit{Earning Ratio} = \frac{\textit{Market price Per Share}}{\textit{Earning Price Per Share}} x100$$

Interpretation: this Ratio indicates the number of times market price can cover the current earnings per share. This ratio gives us idea about the recovery period required to the prospective investor.

Concept Problem on profitability ratio

Concept Problem 11

JB Ltd. has the following Profit and Loss Account for the year ended 31st March, 2006 and the Balance sheet as on that date:

Profit and Loss Account for the year ended 31st March, 2006

Particular	***Rs. Lakhs***	***Particulars***	***Rs. Lakhs***
Opening stock	0.75	**Sales:** Credit	13.00
Add: Manufacturing cost	11.75	Cash	3.00
	12.50		
Less: Closing stock	1.50		
Cost of goods sold	11.00		
Gross profit	5.00		
	16.00		16.00
Administrative expenses	0.35	Gross profit	5.00
Selling expenses	0.25	Other income	0.09
Depreciation	0.50		
Interest	0.47		
Income-tax	1.76		
Net profit	1.76		
	5.09		5.09

Balance Sheet as on 31st March, 2006

Capital and liabilities	***Rs. Lakhs***	***Assets***	***Rs. Lakhs***
Equity shares of Rs. 10 each	3.50	Plant and machinery	10.00
10% preference shares	2.00	Less: Depreciation	2.50
Reserves and surplus	2.00	Net plant and machinery	7.50
Long term long (12%)	1.00	Goodwill	1.40
Debentures (14%)	2.50	Stock	1.50
Creditors	0.60	Debtors	1.00
Bills payable	0.20	Pre-paid expenses	0.25
Accrued expenses	0.20	Marketable securities	0.75
Provision for tax	0.65	Cash	0.25
	12.65		12.65

The market price of the share of JB Ltd. on 31st March, 2006 is Rs. 45

	(Rs. lakhs)
Reserves at the beginning	1.465
Net profit during the year	1.760
	3.225
Preference dividends	0.200
Equity dividends	1.025
Reserves at the close of year	2.000

Concept problem 12

From the final accounts of S Ltd. given below, calculate the following:

Trading and Profit and Loss Account for the year ended 31st March, 2011

Particulars		***Rs.***	***Particulars***	***Rs.***
To Material consumed			By Sales	85,000
Opening stock	9,050		By Profit	600
Purchases	54,525		By Interest on investment	300
	63,575			
Less: Closing stock	14,000	49,575		
To Carriage inwards		1,425		
To Office expenses		15,000		
To Sales expenses		3,000		
To Financial expenses		1,500		
To Loss on sales of Fixed assets		400		
To Net profit		15,000		
		85,900		85,900

Balance Sheet as on 31st March, 2011

Liabilities		***Rs.***	***Assets***		***Rs.***
Share capital 2,000 equity shares		20,000	Fixed Assets:		
Of Rs. 10 each, fully paid			Buildings	15,000	
General reserve		9,000	Plant	8,000	23,000
Profit and loss account		6,000	Current assets:		
Bank overdraft		3,000	Stock in trade	14,000	
Sundry creditors			Debtors	7,000	
For expenses	2,000		Bill receivable	1,000	
For other	8,000	10,000	Bank balance	3,000	25,000
		48,000			48,000

The market price of the share of S Ltd. on 31st March, 2011 is Rs. 55

	(Rs. lakhs)
Reserves at the beginning	1.465
Net profit during the year	1.760
	3.225
Preference dividends	0.200
Equity dividends	1.025
Reserves at the close of year	2.000

Concept problem 13

The profit and loss account and balance sheet of XYZ Ltd. are as under:

Profit and loss account for the year ended 31st December, 2011		**(Rs.)**
Net sales		4,00,000
Less: Cost of production		3,38,000
		62,000
Less: Operating expenses:		
Selling	3,200	
General administration	5,000	
Rent of office	2,800	11,000
Gross operating profit		51,000
Less: Depreciation		10,000
Net-operating profit		41,000
Other income (interest on Government securities)		1,500
Gross income (before tax)		42,500
Less: Other expenses:		
Interest on bank overdraft	300	
Interest on debentures	4,200	4,500
Net income (before tax)		38,000
Tax 50% on net income		19,000
Net income (after tax)		19,000

Balance sheet as at 31st December, 2011		**(Rs.)**
Liabilities		
Equity share capital		60,000
7% preference share capital		10,000
Reserves and surplus		50,000
6% mortgage debentures		70,000
Creditors		6,000
Bills payable		10,000
Outstanding expenses		1,000
Provision for taxation		13,000
		2,20,000
Assets:		
Fixed assets	2,00,000	
Less: Depreciation	50,000	1,50,000
Investment in Government securities		15,000
Debtors		30,000
Stock		20,000
Cash		5,0000
		2,20,000

Revision

Revision problem 1

Following is the profit and loss Account and Balance sheet of Dipak LTD, Prepare Feasibility report on (1) Profitability (2) Liquidity (3) Turnover (4) Solvency

Profit and Loss Account of Dipak LTD

For The year ended on 31st March 2011

Particulars	Amount (Rs)	Particulars	Amounts (Rs)
To Opening stock	50,000	By Sales	20,00,000
To Purchases	11,50,000	By Closing Stock	1,00,000
To Wages	80,000	By Interest & Dividend on Long term-Investment	3,000
To Carriage Inward	20,000	By Profit on sale of long- term invest ment	2,000
To Office & Adm. Expenses	20,000	By Compensation for acquisition of Land	1,000
To Finance Expenses			
Discount	10,000		
Bad debts	6,000		
Interest on bills Payable	4,000		
Interest on Debenture	1,20,000		
To Value of furniture loss by fire	6,000		
To Provision For Tax	2,40,000		
To Preference Dividend	18,000		
To Balance Carried Forwarded to Balance Sheet	2,22,000		
	21,06,000		21,06,000

Balance Sheet

As on 31st March 2011

Liabilities	Amount (Rs)	Asset	Amount (Rs)
10000, Equity Shares of Rs 10 Each	1,00,000	Fixed Asset	10,00,000
1000, 18% Pref. Share of Rs 100 Each	1,00,000	*Investment:*	
General Reserve	1,00,000	10% Long Term Investment	2,00,000
Profit & Loss A/c	2,22,000	10% Other Investment	50,000
15% Debenture	8,00,000	Current Assets	4,40,000
Current Liabilities	3,40,000	Preliminary Expenses	1,00,000
	16,90,000		16,90,000

Revision Problem 2

From the information given below prepare a comparative statement of suitable management ratios for your company to indicate its profitability and liquidity positions for the two years and comment on the significance of the ratios:

Balance Sheet At 31st December

	1984	1985
		Rs. 000's
Fixed Assets:		
Land & Buildings, at cost	2,733	3,343
Plant & Machinery:		
At cost	862	1,062
Less: Depreciation	(395)	(475)
Net fixed assets	3,200	3,930
Current Assets:		
Stocks and work-in-progress	2,862	3,436
Debtors	2,643	2,574
Balance at Bank	360	123
	5,865	6,133
Less: Current liabilities	3,107	2,338
Net Current Assets	2,758	3,795
Net Assets Employed	5,958	7,725

Profit and Loss Account for the year ended 31st December

	1984	1985
		Rs. 000's
Sales	9,371	12,282
Production costs	6,091	6,755
Selling and distribution costs	1,171	1,696
Administration cost	1,028	1,228
	8,290	9,679
Profit before tax	1,081	2,603

[CA Final Nov. 1986/ May 1988]

Revision Problem 3

India international Ltd. has been in existence for two years. The following particulars are extracted from it's publish accounts.

Balance Sheet at year end

	First Rs.	Second Rs.		First Rs.	Second Rs.
Equity capital	1,00,000	100,000	Fixed assets	2,08,000	1,98,000
Reserves	10,000	20,000	Stock	30,000	60,000
Profit & loss A/c	14,000	2,000	Book debts	40,000	80,000
Loan	1,10,000	80,000	Cash at bank	30,000	2,000
Bank overdraft		20,000			
Creditors	30,000	90,000			
Provision of taxation	34,000	13,000			
Proposed dividend	10,000	15,000			
	3,08,000	340,000		3,08,000	3,40,000

Profit and loss account

	Rs.	Rs.		Rs.	Rs.
Interest on loan	2,400	4,800	Balance b/d		14,000
Directors remuneration	10,000	30,000	Profit for the year	80,400	60,800
Provision for taxation	34,000	13,000			
Dividend	10,000	15,000			
Transfer to reserve	10,000	10,000			
Balance c/f	14,000	2,000			
	80,400	74,800		80,400	74,800

Sales amounted to Rs. 6,00,000 in the first year and Rs. 5,00,000 in the second year.
Examine the detail from the pint of (i) profitability, (ii) solvency and (iii) sales. Make such other computations as seem expedient to you and write an overall internal an analysis of this company.

[Final]

Revision problem 4

From the following figures relating to the accounts of Alpha Ltd. comment upon the present state and trend in respect of profitability, solvency and capitalization of the company
Consider only two significant ratios under each head.

	1985-86 Rs.	1986-87 Rs.
Sales	12,00,000	15,00,000
Net block	5,00,000	8,00,000
Receivables	2,00,000	2,95,000
Payables	1,00,000	2,00,000
Cash and bank	50,000	20,000
Closing stock	2,00,000	4,00,000
Bank O/D	1,00,000	2,50,000
Purchases	9,00,000	12,00,000
Expenses	1,00,000	1,50,000
Depreciation	75,000	1,20,000
Interest on O/D	15,000	40,000
Loan	-	2,00,000
Interest on loan	-	35,000
Share capital	4,00,000	4,00,000
Reserve & surplus	1,90,000	2,07,500
Provision for income tax	1,20,000	1,97,500
Proposed dividend	40,000	60,000
Stock on 1.4.1985	Rs. 1,80,000	

[Final, Nov. 1987]

ABC ltd has made plans for the next year. It is estimated that the company will employ total assets of Rs. 8,00,000, 50% of the assets being financed by borrowed capital at an interest rate f 16% per year. The direct costs for the year are estimated at Rs. 4,80,000 and all other operating expenses are estimate Rs. 80,000. the goods will be sold to customers at 150% of the direct costs. Income-tax rate is assumed to be 50%
You are required to calculate: (i) Net profit margin (ii) Return on assets (iii) Assets turnover, and (iv) Return on owners' equity.

(C.S. Final June 1996)

Revision Problem 5

From the final accounts of prudent Ltd. given below, calculate the following:
(a) Gross profit ratio (b) Current ratio (c) Liquid ratio, and (d) Return on investment ratio.

Trading and Profit and Loss Account for the year ended 31st March, 2006

		Rs.		Rs.
To Material consumed			By Sales	85,000
Opening stock	9,050		By Profit	600
Purchases	54,525		By Interest on investment	300
	63,575			
Less: Closing stock	14,000	49,575		
To Carriage inwards		1,425		
To Office expenses		15,000		
To Sales expenses		3,000		
To Financial expenses		1,500		
To Loss on sales of Fixed assets		400		
To Net profit		15,000		
		85,900		85,900

Balance Sheet as on 31st March, 2006

Liabilities		Rs.	Assets		Rs.
Share capital 2,000 equity shares		20,000	Fixed Assets:		
Of Rs. 10 each, fully paid			Buildings	15,000	
General reserve		9,000	Plant	8,000	23,000
Profit and loss account		6,000	Current assets:		
Bank overdraft		3,000	Stock in trade	14,000	
Sundry creditors			Debtors	7,000	
For expenses	2,000		Bill receivable	1,000	
For other	8,000	10,000	Bank balance	3,000	25,000
		48,000			48,000

(C.S. Inter Dec. 1994)

Revision Problem 6.

A company is capitalized as follows:	(Rs.)
7% Preference shares, Re. 1 each	6,00,000
Ordinary shares Re. 1 each	16,00,000
	22,00,000

The following information is relevant as to its financial year just ended:	
Profit after taxation at 50%	Rs. 5,42,000
Capital comminents	Rs. 2,40,000
Market price of ordinary shares	Rs. 4
Ordinary dividend paid	20%
Depreciation	Rs. 1,20,000

You are required to state the following showing the necessary workings (a) Dividend yield on ordinary share (b) Earnings yield (c) Price-earnings (P.E.) ratio (d) Priority percentages (e) Net cash flow.

(I.C.W.A. Final Dec. 1996)

Revision Problem 7

The summarized Balance Sheet of Goods Value Traders Ltd. for the year ended 31-3-2006 is given below:

Capital and liabilities	Rs. Lakhs	Assets	Rs. Lakhs
Equity share capital (fully paid up)	140	Fixed asset (at cost)	197
Reserves and surplus	45	Less: Depreciation	12
Profit and loss account	20	Net Fixed Asst	185

Provision for taxation	10	Current assets:	
Sundry creditors	40	Stock	25
		Debtors	30
		Cash	15
	255		255

The following further particulars are also given for the year	(Rs. Lakh)
Sales	120
Earnings before interest and tax (EBIT)	30
Net profit after tax (PAT)	20

Calculate the following for the company and explain the significance of each in one two sentences (a) Current ratio (b) Liquidity ratio (c) Profitability ratio (d) Profitability on funds employed (e) Debtors turnover (f) Stock turnover (g) Average collection period (h) Return on equity.

(I.C.W.A. Inter June 1998)

Revision Problem 8.

The profit and loss account and balance sheet of XYZ Ltd. are as under:

Profit and loss account for the year ended 31st December, 2006		(Rs.)
Net sales		3,00,000
Less: Cost of production		2,58,000
		42,000
Less: Operating expenses:		
Selling	2,200	
General administration	4,000	
Rent of office	2,800	9,000
Gross operating profit		33,000
Less: Depreciation		10,000
Net-operating profit		23,000
Other income (interest on Government securities)		1,500
Gross income (before tax)		24,500
Less: Other expenses:		
Interest on bank overdraft	300	
Interest on debentures	4,200	4,500
Net income (before tax)		20,000
Tax 50% on net income		10,000
Net income (after tax)		10,000

Balance sheet as at 31st December, 2006		(Rs.)
Liabilities		
Equity share capital		50,000
7% preference share capital		10,000
Reserves and surplus		40,000
6% mortgage debentures		70,000
Creditors		6,000
Bills payable		10,000
Outstanding expenses		1,000
Provision for taxation		13,000
		2,00,000
Assets:		
Fixed assets	1,80,000	

Less: Depreciation	50,000	1,30,000
Investment in Government securities		15,000
Debtors		20,000
Stock		30,000
Cash		5,0000
		2,00,000

You are required to calculate the following ratios – (a) Return on investment, (b) Net profit ratio, (c) Current ratio, (d) Net worth to capital employed, and (e) cost of production to capital employed.

(C.S. Inter June 1999)

Revision Problem 9

JB Ltd. has the following Profit and Loss Account for the year ended 31st March, 2006 and the Balance sheet as on that date:

Profit and Loss Account for the year ended 31st March, 2006

Particular	*Rs. Lakhs*	*Particulars*	*Rs. Lakhs*
Opening stock	1.75	Sales : Credit	12.00
Add: Manufacturing cost	10.75	Cash	3.00
	12.50		
Less: Closing stock	1.50		
Cost of goods sold	11.00		
Gross profit	4.00		
	15.00		15.00
Administrative expenses	0.35	Gross profit	4.00
Selling expenses	0.25	Other income	0.09
Depreciation	0.50		
Interest	0.47		
Income-tax	1.26		
Net profit	1.26		
	4.09		4.09

Balance Sheet as on 31st March, 2006

Capital and liabilities	*Rs. Lakhs*	*Assets*	*Rs. Lakhs*
Equity shares of Rs. 10 each	3.50	Plant and machinery	10.00
10% preference shares	2.00	Less: Depreciation	2.50
Reserves and surplus	2.00	Net plant and machinery	7.50
Long term long (12%)	1.00	Goodwill	1.40
Debentures (14%)	2.50	Stock	1.50
Creditors	0.60	Debtors	1.00
Bills payable	0.20	Pre-paid expenses	0.25
Accrued expenses	0.20	Marketable securities	0.75
Provision for tax	0.65	Cash	0.25
	12.65		12.65

The market price of the share of JB Ltd. on 31st March, 2006 is Rs. 45

	(Rs. lakhs)
Reserves at the beginning	1,465
Net profit during the year	1,260
	2,725
Preference dividends	0.200
Equity dividends	0.525

Reserves at the close of year	2.000

Calculate the following ratios – (1) Current ratio (2) Quick ratio (3) Debt-equity ratio (4) Interest coverage (5) Fixed charge coverage (6) Stock turnover (7) Debtors turnover (8) Average collection period (9) Gross profit margin (10) Net profit margin (11) Operating ratio (12) Return on capital employed (ROCE) (13) Earning per share (14) Return on shareholders' equity (15) P/E ratio and (16) Earning yield.

(C.S. Final June 1998)

Revision Problem 10
The Balance Sheet and income statement of ABC Ltd. are given below:

Balance Sheet

Liabilities	Rs. '000	Assets	Rs. '000
30,000 Equity shares	300	Fixed asset	350
Long term debts	100	Inventory	65
Accounts payable	80	Accounts receivable	60
Other current liabilities	20	Cash	25
	500		500

Income statement

Sales		900
Less:		
Cost of goods sold	400	
General administration and selling expenses	100	
All other expenses	250	750
Net income		150

You are required to calculate – (a) Current market price per share if the P/E ratio is 8, 9b) Current ratio, (c) Net working capital, (d) Current assets / Total assets, and (e) Current liabilities / Total assets.

(C.S. final June, 1999)

Revision Problem 11
Andy Company's equity shares are being traded in the market at Rs. 54 per share with a price-earning ratio of 9. the company's dividend payout is 72%. It has 1,00,000 equity shares of Rs. 10 each and no preference shares. Book value per share is Rs. 42.
Calculate: (i) Earnings per share, (ii) Net income, (iii) Dividend yield, and (iv) Return on equity.

(C.S. Final June 2000)

Revision Problem 12
Delhi Ltd. a large professionally managed consumer durable manufacture, is seeking a medium term loan of Rs. 500 lakh essentially to finance part of its working capital requirements, following its decision to significantly improve credit terms to its customers, with a view to substantially increasing the demand for its products. The following are the company's summarized financial data, compiled from published accounts.

Particulars	2005	2004
Gross fixed assets at cost	2,200	2,000
Accumulated depreciation	(1,600)	(1,500)
Trade investments	100	100
Inventories	480	390
Receivables	590	400
Trade creditors	(170)	(90)
Tax and other provisions	(400)	(400)
Net assets employed	1,200	900
Financed by:		
Equity capital	300	300

Reserves	250	200
Long-term loans	400	200
Overdraft and short-term facilities	250	200
	1,200	900
Sales income	1,800	1,600
Profit before interest and tax	280	280
Interest	100	60
Tax	100	120
Dividends	30	30
Retentions	50	70

The company's fully paid-up equity shares having face value of Rs. 10 per share are quoted at Rs. 15 per share in the stock market. It is known that the utilization of the company's facilities is around 60% of its capacity, and there are adequate technical and marketing skills in the company to handle a much higher volume of business.
Making such other assumptions, as you consider necessary, prepare a brief note on key indicators having bearing on the company's financial position and its credit and liquidity status from prospective lenders' view point for use at an exploratory meeting scheduled with the company.

(C.S. Final June 2003)

Revision Problem 13

The following figures are extracted from the Annual Report of super Conglomerate Ltd.

(Rs. Lakh)

Particulars	31.3.2006		31.3.2005	
Sources:				
Shares capital		120		120
Reserves and Surplus:				
General reserve	2,220		2,340	
Debenture redemption reserve	1,130		570	
Revaluation reserve	620		740	
Profit and Loss Account	20	3,990	220	3,870
Secured Loans:				
Debentures		4,800		2,200
Term loans		530		1,410
Cash credit		780		715
Unsecured Loans:				
Fixed deposits		200		225
Interest-free sales tax loan		900		725
		11,320		9,265
Uses:				
Net block		8,665		7,235
Capital works-in-progress		895		300
Investments		505		560
Current assets, loan and advances	2,430		2,065	
Current liabilities and provisions	1,180	1,240	905	1,160
Miscellaneous expenditure		15		10
		11,320		9,265

Note:

1) Debentures are redeemable as follows:
   (i) Rs. 12 crores at end of the 5th, 6th and 7th years in equal installments. The earliest date of redemption is 30.9.2006.
   (ii) Rs. 10 crores in five semi-annual installments from 30.6.2006.

(iii) Rs. 26 crores in five semi-annual installments of Rs. 4 crores each and one final installment of Rs. 6 crores, commencing from 30.6.2010.

2) Term loans and fixed deposits payable before 31.3.2007: Rs. 115 lakhs (previous year: Rs. 405 lakhs).
3) IFST Loan is repayable from the year 2011.
4) Rs. 500 lakhs of term loans were foreclosed during 2005-06 from the proceeds of the debenture issue.
5) Net block includes value of trade marks Rs. 125 lakhs (previous year: Rs. 120 lakhs).

You are required to calculate:

(a) Capital employed as defined in Para 3 of the Annexure to the Cost Audit Report for the year 2005-06.
(b) Ratio of Net worth to Long-term borrowings as on 31.3.2006.

(I.C.W.A. Final Dec. 2001)

Revision Problem 14

The actual ratios of a company compared to the industry standard are given below. Comment on each ratio and indicate the one or two sentences the nature of action to be taken by the company.

Ratio	Industry standard	Actual for the company
Current ratio	2.2	2.7
Debtors' turnover ratio	6	8
Stock turnover ratio	10	3
Net profit ratio	5%	2.4%
Total debt to total assets	7.5%	40%

(I.C.W.A. Inter Dec. 1999)

Revision Problem 15

Summarized Balance sheet and income statement of AG Ltd. for the year ended 31st March, 2006 are a under:

Income statement for the year ended 31st march, 2006. (Rs. '000)

Sales	1,600
Less: Cost of goods sold	1,310
Gross margin	290
Less: Selling and administrative expenses	40
EBIT	250
Less: Interest expenses	45
Earnings before tax	205
Less: Tax	82
Net profit	123

Balance Sheet as on 31st March, 2006 (Rs. '000)

Liabilities	
Paid up capital (40,000 equity shares of Rs. 10 each, fully paid up)	400
Retained earnings	120
Debentures	700
Creditors	180
Bills payable	20
Other current liabilities	80
	1,500
Assets	
Net fixed assets	800
Inventory	400
Debtors	175

Marketable securities	75
Cash	50
	1,500

Price per share: Rs. 15. industry's average ratio are:

Current ratio	2.4	Debt equity ratio	2:1
Quick ratio	1.5	Times interest earned	6
Sales to inventory	8.0 times	Net profit margin	7%
Average collection period	36 days	Price to earnings ratio	15
Debt to assets	40%	return to total assets	11%

From the above facts and figures you are required to – (i) calculate the relevant ratios and interpret them to identify the problems areas. (ii) Based on the ratio analysis, as a Company Secretary, prepare a report for consideration of your Board of directors clearly bringing out the reasons in respect of identified problem areas and giving suggestions to solve them.

(C.S. Inter Dec. 2000)

Revision Problem 16

Summarized Balance sheet and Profit and Loss Account of a company is given below. Determine the following ratios and comment on the health of the company basing your arguments on the industry averages are given below:

Inventory turnover	10
Investment turnover	1.5
Sales margin	3.5%
Profit / Assets employed	4.0%
Profit / Net worth	11.5%
Average realization time	45 days
Debt / Equity	3.2

Balance Sheet

Liabilities	Rs. Crores	Assets	Rs. Crores
Equity	96.8	Net block	48.4
Secured loans	17.6	Stocks	66.0
Creditors	13.2	Debtors	22.0
Overdraft	17.6	Bank balance	17.6
Income tax due	8.8		
	154.0		154.0

Profit and Loss Account

Particulars	Rs. Crores	Particulars	Rs. Crores
Materials	83.6	Sales	220.0
Manpower	52.8		
Energy	8.0		
Factory expenses	13.2		
Depreciation	4.8		
Selling and distribution	22.0		
Administration	18.0		
Interest	1.6		
Profit	16.0		
	220.0		220.0

Assume Income-Tax at 50%

(I.C.W.A. Final June 1995)

Revision Problem 17

Following ratios have been extracted from the audited records at a large sized industrial company:

Particulars	2002	2003	2004	2005	2006

Current ratio	1.8	1.9	2.1	2.2	2.9
Acid test ratio	1.7	1.2	0.9	0.7	0.6

Interpret the trend of these inter-related ratios for judging the short-term liquidity and solvency of the company.

(C.S. Inter Dec. 1996)

Revision Problem 18

The projected cash operating expenditure of a company for the next year 2006-07 is Rs. 1,82,500. It has quick current assets amounting to Rs. 40,000. you are required to determine the defensive-interval ratio and comment.

(C.S. Final Dec. 2001)

Revision Problem 19

Pinto limited has the following data for projections for the next five years. It has an existing term loan of Rs. 360 lakhs repayable over next five years and has got sanctions for new term loan for Rs. 500 lakhs which is also repayable in five years. As a Finance Manager you are required to calculate (i) Debt service coverage ratio, and (ii) Interest service coverage ratio for each year and the average for 5 years.

Particulars	1	2	3	4	5
Profit after tax	480	575	635	650	685
Depreciation	155	150	140	135	120
Taxation	125	203	254	275	299
Interest on term loans	162	125	87	50	16
Repayment of terms loans	178	178	178	178	148

(I.C.W.A. Final Dec. 1996)

Revision Problem 20

From the following projected figures calculate the yearly debt service coverage ratio (DSCR) and the average DSCR of a firm. (Rs. lakhs)

Year	Net profit after depreciation	Depreciation	Interest on term loan for ear	Repayment of term loan at the end of year
1	10.50	15.50	10.00	10.00
2	15.50	15.00	9.00	10.00
3	17.00	14.52	8.00	10.00
4	20.00	13.50	7.00	10.00
5	22.00	12.50	6.00	20.00
6	25.00	11.25	4.00	20.00
7	25.00	10.00	2.00	20.00

(I.C.W.A. Final June 2001)

Preparation of Financial Statements using Ratio Analyses

Problem 21:
From the following particulars, you are required to prepare the Balance Sheet of a Zinc company:

Fixed assets		Rs. 10,50,000
Fixed assets turnover ratio	(on cost of sales)	2
Finished goods turnover ratio	(on cost of sales)	6
GP rate on sales		25%
Net profit (before interest) to sales		8%
Fixed charges cover (debenture interest 7%)		8
Debt collection period		1.5 month
Material consumed to sales		30%
Stock of raw materials (in terms of months consumption)		3
Current ratio		2.4
Quick ratio		1.0
Reserves to capital ratio		0.21

(C.S. Inter June 1997)

Problem 22:
The following accounting information and financial ratios of XYZ ltd. relate to the year ended 31-3-2006:

(i) Accounting information		(ii) Ratios	
Gross profit	15% of sales	Fixed assets to sales	1:3
Net profit	8% of sales	Fixed assets to current assets	13:11
Raw materials consumed	20% of works cost	Current ratio	2
Direct wages	10% of works cost	Long-term loan to current liabilities	2:1
Stock of raw materials	3 months' usage	Capital to reserves and surplus	1:4
Stock of finished goods	6% of works cost		
Debt collection period	60 days		
All sales are on credit.			

If value of fixed assets as on 31-3-2005 amounted to Rs.26 lakhs, prepare a summarized profit and loss account of the company for the year ended 31-3-2006 and balance sheet as at 31-3-2006.

(I.C.W.A. Inter Dec. 1997)

Problem 23

Shri. Devdas asks you to prepare his balance sheet from the particulars furnished hereunder:
Stock velocity: 6
Gross profit margin: 20%
Capital turnover ratio: 2
Fixed assets turnover ratio: 4
Debt collected period: 2 month
Creditors payment period: 73 days
Gross profit was Rs. 60,000
Excess of closing stock over opening stock was Rs. 5,000
Difference in Balance Sheet represents bank balance.

(C.S. Inter June 1998)(C.A. Inter May 1999)

Problem 24

From the following details, furnished by Globe Traders for the year ended on 31-3-2006, prepare its balance sheet as on that date:

Current ratio	1.75	Reserves and surplus: capital	0.2
Quick ratio	1.25	Cost of sales: Fixed assets	1.2
Stock turnover (cost of sales closing stock)	9	Debt: Equity	0.6
Gross profit ratio	25%	Fixed assets: Net worth	1.25
Average collection period of credit sales	1½ months		

The firm sells its products only on credit. Credit sales for the year ended 31-3-2006 amounted to Rs. 120 lakhs.

(C.S. inter Dec. 1997 and I.C.W.A. Inter June 1999)

Problem 25

Following is the Balance Sheet of Bharat Steel Work Ltd. as on 31st March, 2006.

Liabilities	Rs.	Assets	Rs.
Share capital	24,00,000	Fixed assets (less depreciation)	10,00,000
Profit and Loss Account	1,60,000	Stock	9,00,000
Sundry creditors	5,00,000	Sundry debtors	5,00,000
		Cash and bank balance	6,60,000
	30,60,000		30,60,000

The Management makes the following estimates for the year ending 31st March, 2007:
Purchases up to February 2007 – Rs. 30,40,000; and during March 2007 – Rs. 2,10,000.
Sales up to February, 2007 – Rs. 44,80,000; and during March, 2007 – Rs. 5,00,000. Management decides to invest Rs. 3,00,000 in purchases of fixed asset which are depreciated at 10%. The time lag for payment to creditors and receipts from debtors is one month. The business earns a gross profit of 33½% on turnover. Sundry expenses against gross profit will amount to 12% of the turnover excluding depreciation of fixed assets.
Prepare a proforma balance sheet of the company for the year ending 31st March, 2007.

(C.S. Final Dec. 1992)

Problem 26

You are required to make a quick financial projection (i.e. Projected Incomes Statement and Projected Balance Sheet) for the year 2006-07 on the basis of the following limited information:

	2005-06
Sales	Rs. 10 crores
Expected growth rate	40%
Net profit margin	20%
Dividend pay-out ratio	40%

Tax rate (Assumed)	50%

Balance Sheet as on 31.3.2006

Liabilities	Rs. Lakhs	Assets	Rs. Lakhs
Share capital	175	Fixed assets	400
Retained earning	150	Current assets	470
Loans and liabilities	545		
	870		870

What will be the dividend rate on the basis of above dividend pay-out ratio? You may make necessary assumptions.

(I.C.W.A. Final Dec. 1995)

Problem 27

With the help of the following information, complete the Balance Sheet of XYZ Ltd. Equity Rs. 1,00,000. The relevant ratios of the firm are as follows:

Current debts 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

(I.C.W.A. Final Dec. 1996)

Problem 28

You are required to prepare a statement of Proprietors fund from the following particulars.

(i)	Current ratio	2
(ii)	Liquid ratio	1:5
(iii)	Proprietory ratio (Fixed assets / Proprietory Fund)	0.6
(iv)	Working capital	Rs. 50,000
(v)	Reserves and surplus	Rs. 30,000
(vi)	Bank overdraft	Rs. 10,000

(C.S. Final Dec. 1996)

Problem 29

Following is the abridged Balance Sheet of D.B. Ltd.

Balance Sheet as at 31.3.2006

Liabilities	Rs.	Assets		Rs.
Share capital	1,00,000	Land and buildings		80,000
Profit and Loss Account	17,000	Plant and machinery	50,000	
Current liabilities	40,000	Less: Depreciation	15,000	35,000
				1,15,000
		Stock	21,000	
		Debtors	20,000	
		Bank	1,000	42,000
	1,57,000			1,57,000

With the help of the additional information furnished below, you are required to prepare Trading and Profit and Loss Account and a Balance Sheet as at 31st March, 2007:

(a) The company went in for reorganization of capital structure, with share capital remaining the same as follows:

Share capital	50%
Other Shareholder's funds	15 %

5% Debentures	10 %
Trade creditors	25 %

(b) Land and buildings remained unchanged. Additional plant and machinery has been bough and a further Rs. 5,000 depreciation written off. (The total fixed assets then constituted 60% of total gross fixed and current assts).
(c) Working capital ratio was 8:5
(d) Quick assets ratio was 1:1
(e) The debtors (four-fifth of the quick assets) to sales ratio revealed a credit period of 2 months. There were no cash sales.
(f) Return on net worth was 10%.
(g) Gross profit was at the rate of 15% of selling price.
(h) Stock turnover was eight times for the year.

Ignore taxation. **(I.C.W.A. Final Dec. 1998)**

Problem 30

The following data relate to Satyam and Co. (Rs. millions)

Cash and marketable securities	100
Fixed assets	283.50
Sales	1,000
Net income	50
Quick ratio	2.0 times
Current ratio	3.0 times
Average collection period (ACP)	40 days
Return on equity (ROE)	12%

The Satyam and Co. has no preferred stock – only common equity, current liabilities and long-term debt. Find out – (a) Accounts receivable 9b) Return on assets (ROA) (c) Common equity and (d) Long-term debt (assume 360 days in a year)

(C.S. Final Dec. 1999)

Problem 31

Using the following information complete the balance sheet given below: Available information:

(a)	Total debt to net worth	1:2
(b)	Total Asset Turnover	2
(c)	Gross profit	30%
(d)	Average collection period 9taking one year as 360 days)	40 days
(e)	Inventory turnover based on cost of sales and year end inventory	3
(f)	Acid Test Ratio	3:4

Balance Sheet as on……

Liabilities	Rs.	Assets	Rs.
Equity Share Capital	2,00,000	Plant and Machinery and other	
Reserves and surplus	3,00,000	Fixed assets	?
		Current Assets:	
		Inventory	?
		Account Receivable	?
		Cash in hand and Bank	?

(C.S. Final, 1998)

Problem 32

The assets of XYZ Ltd. consist of fixed ad current assets while its current liabilities comprise of Bank credit and Trade credit in the ratio of 2:1. from the following figures relating to the company for the year 2006 prepare its Balance Sheet showing details of working.

Share capital	Rs. 1,99,500

Working capital	(Current as	Rs. 45,000
Gross margin		20%
Inventory turnover		6
Average collection period		2 months
Current ratio		1.5
Quick ratio		0.9
Reserves and surplus to cash		3

There are three companies in the country manufacturing a particular chemical. Following data are available for the year 2005-06. (Rs. Lakhs)

Company	Net sales	Operating cost	Operating assets
A Ltd.	300	255	125
B Ltd.	1,500	1,200	750
C Ltd.	1,400	1,050	1,250

Which is the best performer as per your assessment and why?

(I.C.W.A. Final Dec. 1994)

Problem 33

A company has a profit margin of 20% and asset turnover of 3 times. What is the company's return on investment? How will this return on investment vary if:

i) Profit margin is increased by 5%?
ii) Asset turnover di decreased to 2 times?
iii) Profit margin is decreased by 5% and asset turnover is increased to 4 times.

(C.S. Final Dec. 1995)

Problem 34

What do you understand by 'working capital leverage'? The profit margin of a company is 10% and the asset turnover is 3 times. What is the return on investment (ROI) of the company? By what percentage will the company's return on investment increased or decreased if:

i) The profit margin increases by 2%,
ii) The profit margin decreased by 2%,
iii) The asset turnover increases by 1, and
iv) The asset turnover decreases by 1?

(C.S. Final June 1998)