PRE RESULTS CRASH MATERIAL / CA INTER / GR. 2/ F.M. / 42.5E

CHAPTERS INCLUDED – RATIO ANALYSIS, RISK ANALYSIS FOR CAPITAL BUDGETING & DIVIDEND DECISION

(APPLICABLE TO MAY 2020 ATTEMPT OF CA INTER. SYNCHRONISED WITH JULY 2019 EDITION OF ICAI SM. ISSUED ON 20/12/19)

7. RATIO ANALYSIS

NO. OF PROBLEMS IN 41.5E OF CA INTER: CLASSROOM - 12, ASSIGNMENT - 12

NO. OF PROBLEMS IN 42E OF CA INTER: CLASSROOM - 14, ASSIGNMENT - 15

NO. OF PROBLEMS IN 42.5E OF CA INTER: CLASSROOM - 12, ASSIGNMENT - 12

MODEL - WISE ANALYSIS OF PREVIOUS EXAMINATIONS

No.	MODEL NAME	N-05	M-06	N-06 TO M-09	N-09	M-10	N-10	M-11	N-11	M-12	N-12	M-13	N-13	M-14	N-14 TO N-17	M-18 (O)	M-18 (N)	N-18 (N&O)	M-19 (N)	N-19 (N)
1.	PREPARATION OF BALANCE SHEET	12	-	-	-	15	-	-	-	-	8	-	8	5	8	-	-	-	-	-
2.	CALCULATION OF RATIOS	-	12	-	2	-	5	-	8	-	-	5	-	-	-	-	5	5	5	5

SIGNIFICANCE OF EACH PROBLEM COVERED IN THIS MATERIAL

Problem No. in this material	Problem No. in new SM	Problem No. in old SM	Problem No. in old PM	RTP	MTP	Previous Exams	Remarks
CR 1	-	-	-	-	-	M 13	-
CR 2	-	-	8	-	-	-	-
CR 3	-	-	-	-	-	-	-
CR 4	-	-	-	-	-	-	-
CR 5	PQ-1	ILL-4	-	-	M 19 (N)	-	-
CR 6	PQ-5	ILL-9	-	-	M 19 (N)	-	-
CR 7	-	-	-	M18 NEW	-	-	-
CR 8	PQ-4	ILL-7	-	-	-	-	-
CR 9	ILL-3	ILL-3	-	-	NOV19(N)	-	-
CR 10	PQ-2	ILL-5	-	-	-	-	-
CR 11	PQ-3	ILL-6	-	N 19(O&N)	-	-	-
CR 12	-	-	9	M 19 (O&N)	-	-	-
ASG 1	-	-	-	N16	-	-	-
ASG 2	-	-	6	-	-	N 9 (O)	-
ASG 3	-	-	-	-	-	-	-
ASG 4	-	-	-	-	M 19 (O)	M10	-
ASG 5	-	-	-	-	-	-	-
ASG 6	-	-	10	-	-	N13	-
ASG 7	-	-	5	-	-	-	-
ASG 8	-	-	7	-	-	N10	-
ASG 9	-	-	2	-	-	-	-
ASG 10	-	-	-	-	-	M19 (O)	-
ASG 11	-	-	-	-	-	-	-
ASG 12	-	-	-	-	-	-	-

Theory

Introduction: Financial statements- P&L A/c and Balance Sheet do not disclose all of the necessary and relevant information for better Planning and Decision Making. They provide only financial data to analyze the financial position which is not only necessary for proprietors alone but also to the parties demanding financial information i.e., Government, Nationalized Banks, Investors and Customers. There are various tools available for financial analysis.

They are:

a) Comparative Statements

b) Common size statements

c) Trend Ratios

d) Ratio Analysis

e) Cash Flow Statements

f) Fund Flow Statements

The most important tool for Financial Analysis is Ratio Analysis. It is useful in understanding the Financial Statements and drawing conclusions about the financial position of the firm.

Ratio Analysis:

a) The Ratio Analysis has emerged as the principal technique of the Annual financial statements.

b) A ratio is a relationship expressed in mathematical terms between two individual figures or group of figures connected with each other in some logical manner.

c) A financial ratio helps to summarize a large mass of financial data into a concise form and to make meaningful interpretations and conclusions about the performance and positions of a firm.

d) For example, a firm having Net Sales of Rs.5,00,000 is making a gross profit of Rs.1,00,000. It means that the ratio of the Gross Profit to Net Sales is 20% i.e. (Rs.1,00,000 ÷ Rs.5,00,000) x 100.

Steps in Ratio Analysis: The Ratio Analysis requires two steps as follows:

a) Calculation of a ratio (as discussed later), and

b) Comparing the ratio with some predetermined standard. The standard ratio may be the past ratio of the same firm or industry average ratio or a projected ratio or the ratio of the most successful firm in the industry.

Forms of Ratios: Since a ratio is a mathematical relationship between two or more variables or accounting figures, such relationship can be expressed in different ways as follows:

a) **As a pure ratio:** For example, the equity share capital of a company is Rs.20,00,000 and the preference share capital is Rs.5,00,000, the ratio of equity share capital to preference share capital is 20,00,000: 5,00,000 or simply 4:1.

b) **As a rate of times:** In the above case the equity share capital may also be described as 4 times that of preference share capital. Similarly, the cash sales of a firm are Rs.12,00,000 and the credit sales are Rs.30,00,000. So, the ratio of credit sales to cash sales can be described as 2.5 (30, 00,000 ÷ 12, 00,000) or simply by saying that the credit sale are 2.5 times that of cash sales.

c) **As a percentage:** In such a case, one item may be expressed as a percentage of some other item. For example, net sales of the firm are Rs.50,00,000 and the amount of the gross profit is Rs.10,00,000, then the gross profit may be described as 20% of sales i.e. (Rs.10,00,000 ÷ Rs.50,00,000) x 100 or simply 20%.

Classification of Ratios:

The ratios can be classified into following four broad categories:

a) **Liquidity Ratios**

b) **Capital Structure/Leverage Ratios**

c) **Activity Ratios**

d) **Profitability Ratios**

SUMMARY

Ratio	Formulae	Comments
1. LIQUIDITY RATIOS / SHORT TERM SOLVENCY RATIOS • The term Liquidity or short-term solvency means ability of the business to pay its short-term liabilities. • 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. • Short-term lenders and creditors of a business are very much interested to know its state of liquidity because of their financial stake. • Consequently, these ratios focus on current assets and current liabilities. • The Liquidity Ratios provide a quick measure of liquidity position of the firm by establishing a relationship between its current assets and its current liabilities.		
Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	A simple measure that estimates whether the business can pay short term debts. Ideal ratio is 2 : 1.
Quick Ratio	$\frac{\text{Quick Assets}}{\text{Current Liabilities}}$	It measures the ability to meet current debt immediately. Ideal ratio is 1 : 1.
Cash Ratio	$\frac{\left(\text{Cash and Bank balances} + \text{Marketable Securities}\right)}{\text{Current Liabilities}}$	It measures absolute liquidity of the business.
Basic Defense Interval Ratio	$\frac{\left(\text{Cash and Bank balances} + \text{Marketable Securities}\right)}{\text{Opering Expenses} \div \text{No. of days}}$	It measures the ability of the business to meet regular cash expenditures.
Net Working Capital Ratio	Current Assets – Current Liabilities	It is a measure of cash flow to determine the ability of business to survive financial crisis.
2. LEVERAGE RATIOS/ LONG TERM SOLVENCY RATIOS / CAPITAL STRUCTURE RATIOS **Purpose:** Leverage Ratios are used to measure the firm's ability to meet the Long term Obligations. These Ratios indicate the mix of the Funds provided by owners and lenders and assure the lenders of the Long term funds with regard to: • Periodic payment of interest during the period of the loan • Repayment of principal amount on maturity.		
1. **CAPITAL STRUCTURE RATIOS**		
Equity Ratio	$\frac{\text{Shareholders' Equity}}{\text{Capital Employed}}$	It indicates owner's fund in companies to total fund invested.
Debt Ratio	$\frac{\text{Total outside liabilities}}{\text{Total Debt} + \text{Net worth}}$	It is an indicator of use of outside funds.
Debt to equity Ratio	$\frac{\text{Total Outside Liabilities}}{\text{Shareholders' Equity}}$	It indicates the composition of capital structure in terms of debt and equity.
Debt to Total assets Ratio	$\frac{\text{Total Outside Liabilities}}{\text{Total Assets}}$	It measures how much of total assets is financed by the debt.
Capital Gearing Ratio	$\frac{\left(\text{Preference Share Capital} + \text{Debentures} + \text{Other Borrowed funds}\right)}{\left(\text{Equity Share Capital} + \text{Reserves \& Surplus} - \text{Losses}\right)}$	It shows the proportion of fixed interest bearing capital to equity shareholders' fund. It also signifies the advantage of financial leverage to the equity shareholder.
Proprietary Ratio	$\frac{\text{Proprietary Fund}}{\text{Total Assets}}$	It measures the proportion of total assets financed by shareholders.

2. COVERAGE RATIOS

Purpose: The ability to service the debt refers to how easily and readily the firm will be able to meet its commitments in respect of the contractual interest payment and the repayment schedule. In addition to the interests and the repayments, a firm may also have to pay the scheduled payment. The firm's ability to service the fixed liabilities can be measured with the help of Coverage ratios.

Debt Service Coverage Ratio (DSCR)	$\frac{\text{Earnings available for debt services}}{\text{Interest} + \text{Instalments}}$	It measures the ability to meet the commitment of various debt services like interest, instalment etc. Ideal ratio is 2.
Interest Coverage Ratio	$\frac{\text{EBIT}}{\text{Interest}}$	It measures the ability of the business to meet interest. Ideal ratio is > 1.
Preference Dividend Coverage Ratio	$\frac{\text{Net Profit / Earning after taxes (EAT)}}{\text{Preference dividend liability}}$	It measures the ability to pay the preference shareholders' dividend. Ideal ratio is > 1.
Fixed Charges Coverage Ratio	$\frac{\text{EBIT} + \text{Depreiation}}{\text{Interest} + \frac{\text{Re-payment of loan}}{1 - \text{tax rate}}}$	This ratio shows how many times the cash flow before interest and taxes covers all fixed financing charges. The ideal ratio is > 1.

3. ACTIVITY RATIOS/TURNOVER RATIO/PERFORMANCE RATIOS

Purpose: Activity Ratios are used to measure the efficiency or effectiveness with which a firm manages its Assets or resources. Under this head we study the following Ratios.

Total Asset Turnover Ratio	$\frac{\text{Sales / Cost of Goods Sold}}{\text{Average Total Assets}}$	A measure of total asset utilisation. It helps to answer the question - What sales are being generated by each rupee's worth of assets invested in the business?
Fixed Assets Turnover Ratio	$\frac{\text{Sales / Cost of Goods Sold}}{\text{Fixed Assets}}$	This ratio is about fixed asset capacity. A reducing sales or profit being generated from each rupee invested in fixed assets may indicate overcapacity or poorer-performing equipment.
Capital Turnover Ratio	$\frac{\text{Sales / Cost of Goods Sold}}{\text{Net Assets}}$	This indicates the firm's ability to generate sales per rupee of long term investment.
Working Capital Turnover Ratio	$\frac{\text{Sales / COGS}}{\text{Working Capital}}$	It measures the efficiency of the firm to use working capital.
Inventory Turnover Ratio	$\frac{\text{COGS / Sales}}{\text{Average Inventory}}$	It measures the efficiency of the firm to manage its inventory.
Debtors Turnover Ratio	$\frac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$	It measures the efficiency at which firm is managing its receivables.
Receivables (Debtors') Velocity	$\frac{\text{Average Accounts Receivables}}{\text{Average Daily Credit Sales}}$	It measures the velocity of collection of receivables.
Payables Turnover Ratio	$\frac{\text{Annual Net Credit Purchases}}{\text{Average Accounts Payables}}$	It measures the velocity of payables payment.

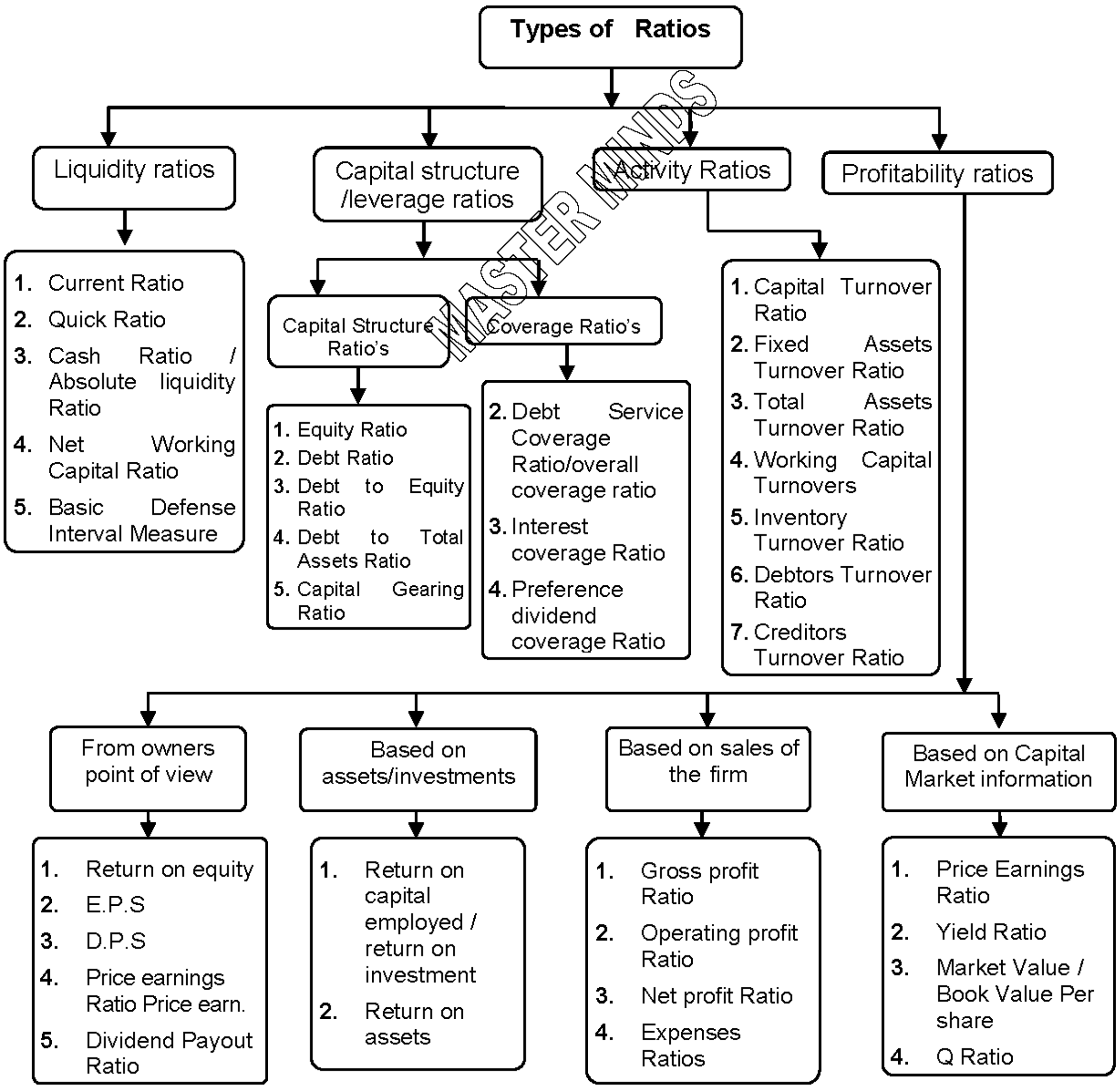
4. PROFITABILITY RATIOS/ CASUAL RATIOS

The profitability ratios measure the profitability or the operational efficiency of the firm. These ratios reflect the final results of business operations. They are some of the most closely **watched and widely quoted ratios. Management attempts to maximize these ratios to maximize firm value.** The results of the firm can be evaluated in terms of its earnings with reference to a given level of assets or sales or owner's interest etc. Therefore, the profitability ratios are broadly classified in four categories

1. Profitability ratios required for analysis from owners' point of view
2. Profitability ratios based on assets/investments
3. Profitability ratios based on sales of the firm
4. Profitability ratios based on capital market information

1. Profitability Ratios Required for Analysis from Owner's Point of View		
Earnings per Share (EPS)	$\frac{\text{Net profit available to equity shareholders}}{\text{Number of equity shares outstanding}}$	EPS measures the overall profit generated for each share in existence over a particular period.
Dividend per Share (DPS)	$\frac{\text{Dividend Paid to equity shareholders}}{\text{Number of equity shares outstanding}}$	Proportion of profit distributed per equity share.
Dividend payout Ratio (DP)	$\frac{\text{Dividend per equity share}}{\text{Earning per Share (EPS)}}$	It shows % of EPS paid as dividend and retained earnings.
2. Profitability Ratios related to Overall Return on Assets/ Investments		
Return on Investment (ROI)	$\frac{\text{Return / Profit / Earnings}}{\text{Investments}} \text{x}100$	It measures overall return of the business on investment/ equity funds/ capital employed/ assets.
Return on Assets (ROA)	$\frac{\text{Net Profit after taxes}}{\text{Average total assets}}$	It measures net profit per rupee of average total assets/ average tangible assets/ average fixed assets.
Return on Capital Employed ROCE (Pre-tax)	$\frac{\text{EBIT}}{\text{Capital Employed}} \text{x}100$	It measures overall earnings (either pretax or post tax) on total capital employed.
Return on Capital Employed ROCE (Post-tax)	$\frac{\text{EBIT}(1-t)}{\text{Capital Employed}} \text{x}100$	It indicates earnings available to equity shareholders in comparison to equity shareholders' net worth.
Return on Equity (ROE)	$\frac{\left(\text{Net Profit after taxes} - \text{Preference dividend (if any)}\right)}{\text{Net worth / equity shareholders' fund}}$	
3. Profitability Ratios based on Sales		
Gross Profit Ratio	$\frac{\text{Gross Profit}}{\text{Sales}} \text{x}100$	This ratio tells us something about the business's ability consistently to control its production costs or to manage the margins it makes on products it buys and sells.
Net Profit Ratio	$\frac{\text{Net Profit}}{\text{Sales}} \text{x}100$	It measures the relationship between net profit and sales of the business.
Operating Profit Ratio	$\frac{\text{Operating Profit}}{\text{Sales}} \text{x}100$	It measures operating performance of business.
Expenses Ratio		
Cost of Goods Sold (COGS) Ratio	$\frac{\text{COGS}}{\text{Sales}} \text{x}100$	It measures portion of a particular expenses in comparison to sales.
Operating Expenses Ratio	$\frac{\left(\text{Administrative exp.} + \text{Selling \& Distribution OH}\right)}{\text{Sales}} \text{x}100$	
Operating Ratio	$\frac{\text{COGS} + \text{Operating Expenses}}{\text{Sales}} \text{x}100$	
Financial Expenses Ratio	$\frac{\text{Financial Expenses}}{\text{Sales}} \text{x}100$	

4. Profitability Ratios related to market/ valuation/ Investors		
Price - Earnings per Share (P/E Ratio)	$\frac{\text{Market price per Share (MPS)}}{\text{Earning per Share (EPS)}}$	At any time, the P/E ratio is an indication of how highly the market "rates" or "values" a business. A P/E ratio is best viewed in the context of a sector or market average to get a feel for relative value and stock market pricing.
Dividend Yield	$\frac{\text{Dividend per Share (DPS)}}{\text{Market Price per Share (MPS)}} \times 100$	It measures dividend paid based on market price of shares.
Earnings Yield	$\frac{\text{Earnings per Share (EPS)}}{\text{Market Price per Share (MPS)}} \times 100$	It is the relationship of earning per share and market value of shares.
Market Value /Book Value per Share	$\frac{\text{Market Value per Share}}{\text{Book Value per Share}}$	It indicates market response of the shareholders 'investment.
Q Ratio	$\frac{\text{Market Value of equity and liabilities}}{\text{Estimated replacement cost of assets}}$	It measures market value of equity as well as debt in comparison to all assets at their replacement cost.



IMPORTANT TERMS

- **Current Assets =** Inventory/Stock in Trade (S.I.T) + Sundry Debtors + Cash & Bank balances + Receivables i.e. B/R + Accruals i.e. Rent receivable + Loans & Advances + Prepaid Expenses and Short Investments, if any.
- **Current Liabilities =** Creditors for Goods & Services + Short Term Loans + Bank OD + Cash Credit + O/s Expenses + Provision for Taxation + Proposed Dividend + Unclaimed Dividend + Payables i.e. B/P+ Accrued Interest etc.
- **Quick Assets =** Current assets - Stock - Prepaid Expenses (as they aren't realizable back).

  Quick Liabilities = Current Liabilities – Bank OD – Cash Credit.

  Current Liabilities = Same as above.
- **Defensive or Liquid Assets** = cash + bank + debtors + marketable securities (or) current assets – inventory – prepaid expenses.

  Projected daily cash requirements = Operating Expenses +Interest+ Income taxes ÷ 365
- **Capital Employed:** Total Assets – Current Liabilities(OR) = Fixed Assets +Working Capital
- **Total debt** includes short and long term borrowings from financial institutions, debentures/bonds, deferred payment arrangements for buying capital equipments, bank borrowings, public deposits and any other interest bearing loan.
- **Capital employed** includes total debt and net worth.
- **Long term Debt** which means long term loans (whether Secured or unsecured)(eg. Debentures, bonds, loans from Financial institutions.
- **Share Holders Funds or Shareholders equity** means Equity Share capital + Preference Share capital + reserves and Surpluses- fictitious assets.
- **Fixed interest bearing funds means** : Debentures + Long Term Loans +Preferential Share capital.
- **Equity shareholder's funds means** : Equity share capital+ Reserves & Surplus.

  Fixed Assets = Gross Block – Dep. to date
- **LT funds =** Share capital (Equity & Preference) + Reserves & surpluses + LT Loans.
- **Proprietary fund includes** Equity Share Capital + Preference Share Capital + Reserve & Surplus – Fictitious Assets.

  Total assets exclude fictitious assets and losses
- **Earnings available for Debt service =** Net Profit + Non cash operating expenses like depreciation and other amortization + non-operating adjustments like loss on sale of fixed assets + Interest on debt fund.
- **Net assets** = net fixed assets + current assets – current liabilities. Since net assets equal to capital employed it also known as Capital Turnover ratio.

  Net sales = Gross Sales – Returns
- **Net Working capital =** Total current assets – Total current liabilities
- **Cost of Goods sold =** Opening Stock + Purchases - Closing Stock or Net Sales -Gross profit.

  Average Inventory = $\frac{\text{Opening Inventory} + \text{Closing Inventory}}{2}$
- **STOCK VELOCITY RATIO/ STOCK HOLDING PERIOD:**

  Formula: Stock Holding Period = $\frac{\text{365 Days/12M/52 weeks}}{\text{Stock turnover Ratio}}$

  <u>**Note:**</u> In case Stock Velocity is given in problems in no. of times then it represents Stock Turnover Ratio.

- **Credit Sales =** Credit sales for the year – Sales returns for the year.

  Average Accounts Receivables = $\frac{\text{Opening A/cs Receivable} + \text{Closing A/cs Receivable}}{2}$

  Accounts Receivable = Trade Debtors + Bills Receivables from Customers.

- **DEBTORS COLLECTION PERIOD / DEBTORS VELOCITY RATIO:**

  Formula = $\frac{\text{365 Days/12M/52 weeks}}{\text{Debtors turnover Ratio}}$

  Note: In case Debtors Velocity is given in problems in no. of times, it represents Debtors Turnover Ratio.

- **Net Credit Annual purchase =** Total Credit purchases for the year – Purchase returns.

  Avg. Account payable = $\frac{\text{Opening Accounts Payable} + \text{Closing Accounts Payable}}{2}$

  Accounts Payable = Trade Creditors + Bills Payables from Customers.

- **CREDITORS VELOCITY RATIO/ AVERAGE PAYMENT PERIOD:**

  Formula = $\frac{\text{365 Days/12M/52 weeks}}{\text{Creditors Turnover Ratio}}$

  Note: In case Creditors Velocity is given in problems in no. of times, it represents Creditors Turnover Ratio.

- **Net profits available to equity shareholders =** PAT – Preference Dividend
- **Capital employed =** Total Assets less Current liabilities Or E.S.C + P.S.C + Reserves & Surplus + Debt funds (Other than current liabilities) - Miscellaneous expenses not written off.
- **Gross Profit =** Net sales – cost of goods sold, Net **Sales =** Same as above

PROBLEMS FOR CLASSROOM DISCUSSION

MODEL 1 : MISSING VALUES

PROBLEM NO 1: The following information relates to Beta Ltd. for the year ended 31st March 2013 :

Net working Capital	Rs.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.

(A)(M13-5M) (Ans: i) 48,00,000 ii)36,00,000 iii)12%)

(Solve Problem No: 1 of Assignment Problems as rework)

Note:____

PROBLEM NO 2:

The Directors of Bharucha Enterprises Ltd. ask you to ascertain:

a) Proprietors funds

b) Fixed assets

c) Closing debtors

d) Closing creditors

e) Closing stock

f) Share capital

g) Cash & bank balances

- **i)** The following information is provided to you:
- **ii)** Inventory turnover ratio is 6 times.
- **iii)** Year end debtors are outstanding for 2 months.
- **iv)** Year end creditors are outstanding for 73 days.
- **v)** Ratios of cost of goods sold to:
- **vi)** Proprietors' funds is 2:1
- **vii)** Fixed Assets is 4:1
- **viii)** Ratio of Gross Profit to Sales is 20%.
- **ix)** Closing stock is greater than the opening stock by Rs.10, 000.

h) The Gross Profit for the year is Rs.1, 20,000.

i) Reserves & Surplus appearing in the Balance Sheet at the end of the year total to Rs.40, 000. ***(A)***

(Ans.: COGS is Rs.4, 80,000; Equity share capital is Rs.2, 00,000; Closing Debtors & Creditors is 1, 00,000 & 98,000; Cash & Bank is Rs.33,000)

(Solve Problem No: 2 of Assignment Problems as rework)

Note:____

PROBLEM NO 3: The total sales (all credit) of a firm are Rs.6,40,000. It has a gross profit margin of 15 per cent and a current ratio of 2.5. The firm's current liabilities are Rs.96,000; inventories Rs.48,000 and cash Rs.16,000. (a) Determine the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected? (Assume a 360 day year). (b) Determine the average collection period if the opening balance of debtors is intended to be of Rs.80,000? (Assume a 360 day year). *(A)(NEW SM, OLD SM) (ANS.: (a) 1,08,800 (b) 72 days)*

(Solve Problem No: 3 of Assignment Problems as rework)

Note:____

MODEL 2 : PROPRIETORS FUNDS

PROBLEM NO 4: From the following information, relating to a Limited Company, prepare a Statement of Proprietors' Funds:

Current Ratio	2
Liquid Ratio	1.5
Fixed Assets/Proprietary Fund	3/4
Working Capital	Rs.75 Lakh
Reserves & Surplus	Rs.50 Lakh
Bank Overdraft	Rs.10 Lakh

There were no long - term loans or fictitious assets.

(A) (ANS.: Stock Rs.37,50,000; Equity share capital is Rs.250,00,000; Fixed assets Rs.225,00,000; Working capital is Rs.75,00,000)

(Solve Problem No: 4 of Assignment Problems as rework)

Note:____

MODEL 3 : PREPARATION OF FINANCIAL STATEMENTS

PROBLEM NO 5: With the help of the following information ANALYSE and complete the Balance Sheet of Anup Ltd.

Equity share capital	Rs. 1,00,000
The relevant ratios of the company are as follows:	
Current debt to total debt	0.40
Total debt to Equity share capital	0.60
Fixed assets to Equity share capital	0.60
Total assets turnover	2 Times
Inventory turnover (Based On Sales)	8 Times

(MTP2 N18)(MTP2 M19(N))(ANS: Balance Sheet Total: 1,60,000)

(Solve Problem No: 5 of Assignment Problems as rework)

Note:____

PROBLEM NO 6: Using the following information, complete this balance sheet:

Long-term debt to net worth	0.5 to 1
Total asset turnover	2.5 times
Average collection period*	18 days
Inventory turnover	9 times
Gross profit margin	10%
Acid-test ratio	1 to 1

* Assume a 360-day year and all sales on credit.

	Rs.		Rs.
Cash	?	Notes and payables	1,00,000
Accounts receivable	?	Long-term debt	?
Inventory	?	Common stock	1,00,000
Plant and equipment	?	Retained earnings	1,00,000
Total assets	?	Total liabilities and equity	?

(A)(NEW SM, OLD SM)(MTP1 M19(N))

(Ans.: Cash 50,000; accounts receivable Rs.50,000; inventory 1,00,000; P&E: 2,00,000; total assets 4,00,000)

(Solve Problem No: 6 of Assignment Problems as rework)

Note:____

PROBLEM NO 7: Ganapati Limited has furnished the following ratios and information relating to the year ended 31st March, 2013.

Sales	*Rs.60,00,000*
Return on net worth	*25%*
Rate of income tax	*50%*
Share capital to reserves	*7:3*
Current ratio	*2*
Net profit to sales	*6.25%*
Inventory turnover (based on cost of goods sold)	*12*

Cost of goods sold	*Rs.18,00,000*
Interest on debentures	*Rs.60,000*
Sundry debtors	*Rs.2,00,000*
Sundry creditors	*Rs.2,00,000*

You are required to:

a) Calculate the operating expenses for the year ended 31st March, 2013.

b) Prepare a balance sheet as on 31st March in the following format:

Balance Sheet as on 31st March, 2013

Liabilities	Rs.	Assets	Rs.
Share Capital		Fixed Assets	
Reserve and Surplus		Current Assets	
15% Debentures		Stock	
Sundry Creditors		Debtors	
		Cash	

(A) (NEW SM, OLD SM) (ANS: a) Operating expenses 33,90,000 b) Balance Sheet Total :Rs.21,00,000)

(Solve Problem No: 7 of Assignment Problems as rework)

Note:____

PROBLEM NO 8: (PRINTED SOLUTION AVAILABLE) : The following information and financial ratios of PQR Ltd. relate to the year ended 31st December, 2015:

	Particulars	2015
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 cpst
	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, 2014 amounted to Rs.26 lakhs, prepare a summarized profit and Loss Account of the company for the year ended 31st December, 2015 and also the Balance Sheet as on 31st December, 2015. ***(B)(NEW SM,OLD SM)***

(Ans.: Sales Rs.78,00,000; Gross Profit Rs.11,70,000; Net Profit Rs.6,24,000; Stock of Raw Material Rs.3,31,500; Stock of Finished Goods Rs.3,97,800; Debtors Rs.12,82,192; Cash Rs.1,88,508)

(Solve Problem No: 8 of Assignment Problems as rework)

Note:____

MODEL 4 : PROFITABILITY RATIOS

PROBLEM NO 9: MNP Limited has made plans for the year 2019-20. It is estimated that the company will employ total assets of Rs. 50,00,000; 30% of assets being financed by debt at an interest cost of 9% p.a. The direct costs for the year are estimated at Rs. 30,00,000 and all other operating expenses are estimated at Rs 4,80,000. The sales revenue are estimated at Rs. 45,00,000. Tax rate is assumed to be 40%.CALCULATE:

i) Net profit margin(After tax)

ii) Return on assets (After tax)

iii) Asset turnover; and

iv) Return on equity

(MTP N 19 (N))(ANS: (i) 13.6% , (ii) 12.24%, (iii) 0.9 Times , (iv) 15.17%

(Solve Problem No: 9 of Assignment Problems as rework)

Note:____

PROBLEM NO 10: The capital structure of beta limited is as follows

Equity share capital of Rs.10/- each	8,00,000
9% Preference Share capital of Rs.10/- each	3,00,000

Additional information: Profit (after tax at 35 per cent), Rs.2,70,000; Depreciation, Rs.60,000; Equity dividend paid, 20 per cent; Market price of equity shares, Rs.40.

You are required to compute the following, showing the necessary workings:

a) Dividend yield on the equity shares

b) Cover for the preference and equity dividends

c) Earnings per shares

d) Price – earnings ratio. ***(A)(NEW SM, OLD SM)***

(Ans.: a. 5%; b. 10 times & 1.52 times c. 3.04 times d. 13.2 times)

(Solve Problem No: 10 of Assignment Problems as rework)

Note:____

MODEL 5 : INTRA FIRM AND INTER FIRM COMPARISION

PROBLEM NO 11: (PRINTED SOLUTION AVAILABLE) In a meeting held at Solan towards the end of 2012, the Directors of M/s HPCL Ltd. have taken a decision to diversify. At present HPCL Ltd. sells all finished goods from its own warehouse. The company issued debentures on 01.01.2013 and purchased fixed assets on the same day. The purchase prices have remained stable during the concerned period. Following information is provided to you:

Income Statements

	2012 (Rs.)		**2013(Rs.)**	
Cash Sales	30,000		32,000	
Credit Sales	2,70,000	3,00,000	3,42,000	3,74,000
Less: Cost of goods sold		2,36,000		2,98,000
Gross profit		64,000		76,000
Less: Expenses Warehousing	13,000		14,000	
Transport	6,000		10,000	
Administrative	19,000		19,000	
Selling	11,000	49,000	14,000	
Interest on Debenture			2,000	59,000
Net Profit		15,000		17,000

Balance Sheet

	2012 (Rs.)		2013 (Rs.)	
Fixed Assets (Net Block)	-	30,000	-	40,000
Debtors	50,000		82,000	
Cash at Bank	10,000		7,000	
Stock	60,000		94,000	
Total Current Assets (CA)	1,20,000		1,83,000	
Creditors	50,000		76,000	
Total Current Liabilities (CL)	50,000		76,000	
Working Capital (CA - CL)		70,000		1,07,000
Total Assets		1,00,000		1,47,000
Represented by:				
Share Capital		75,000		75,000
Reserve and Surplus		25,000		42,000
Debentures		–		30,000
		1,00,000		1,47,000

You are required to calculate the following ratios for the years 2012 and 2013.

a) Gross Profit Ratio
b) Operating Expenses to Sales Ratio.
c) Operating Profit Ratio
d) Capital Turnover Ratio
e) Stock Turnover Ratio
f) Net Profit to Net Worth Ratio, and
g) Debtors Collection Period.

Ratio relating to capital employed should be based on the capital at the end of the year. Give the reasons for change in the ratios for 2 years. Assume opening stock of Rs.40,000 for the year 2012. Ignore Taxation. *(A) (NEWSM, OLDSM)(RTP N19(O&N))*

(Ans.: i. 21.3% ; 20.3 ii.16.3%;15.2% iii. 5%,5.08% iv. 3, 2.54 v. 4.7, 3.9 vi.15%, 14.5% vii. 67.6 days;87.5days)

(Solve Problem No: 11 of Assignment Problems as rework)

Note:____

____

PROBLEM NO 12: (PRINTED SOLUTION AVAILABLE) From the following table of financial ratios of R. Textiles Limited, comment on various ratios given at the end:

Ratios	2016	2017	Average of Textile Industry
Liquidity Ratios			
Current ratio	2.2	2.5	2.5
Quick ratio	1.5	2	1.5
Receivable turnover ratio	6	6	6
Inventory turnover	9	10	6
Receivables collection period	87 days	86 days	85 days
Operating profitability			
Operating income -ROI	25%	22%	15%
Operating profit margin	19%	19%	10%
Financing decisions			
Debt ratio	49.00%	48.00%	57%
Return			
Return on equity	24%	25%	15%

Comment on the following aspect of R. Textiles Limited

i) Liquidity

ii) Operating profits

iii) Financing

iv) Return to the shareholder

(C)(RTP N17)(RTP M19 (O&N) ***(Solve Problem No: 12 of Assignment Problems as rework)***

Note:____

____

PRINTED SOLUTIONS TO SOME SELECTIVE PROBLEMS

PROBLEM NUMBERS TO WHICH SOLUTIONS ARE PROVIDED: 8, 11, 12

PROBLEM NO.8

a) Working Notes:

i) Calculation of Sales = $\frac{\text{Fixed Assets}}{\text{Sales}} = \frac{1}{3}$ = $\frac{26,00,000}{\text{Sales}} = \frac{1}{3} \Rightarrow \text{Sales} = \text{Rs}.78,00,000$

ii) Calculation of Current Assets:

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

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

iii) Calculation of Raw Material Consumption and Direct Wages

Particulars	Rs.
Sales	78,00,000
Less: Gross Profit	11,70,000
Works Cost	**66,30,000**

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

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

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

$$= 13,26,000 \text{ x } \frac{3}{12} = \text{Rs}.3,31,500$$

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

$$= 66,30,000 \text{ x } \frac{6}{100} = \text{Rs}.3,97,800$$

vi) Calculation of Current Liabilities:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} = 2 \quad = \quad \frac{22,00,000}{\text{Current Liabilities}} = 2 \Rightarrow \text{Current Liabilities} = \text{Rs}.11,00,000$$

vii) Calculation of Debtors = $\text{Average Collection period} = \frac{\text{Debtors}}{\text{Credit Sales}} \text{ x } 365$

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

viii) Calculation of Long term Loan = $\frac{\text{Long term Loan}}{\text{Current Liabilities}} = \frac{2}{1}$

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

ix) Calculation of Cash Balance:

Particulars		Rs.
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:

Particulars		Rs.
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

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

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

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

Particulars	Rs.	Particulars	Rs.
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	Rs.	Assets	Rs.
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**

PROBLEM NO.11

Computation of Ratios	2014	2015
1. Gross profit ratio Gross profit/sales	$\frac{64{,}000 \times 100}{3{,}00{,}000}$ = 21.3%	$\frac{76{,}000 \times 100}{3{,}74{,}000}$ = 20.3
2. Operating expense to sales ratio Operating exp / Total sales	$\frac{49{,}000 \times 100}{3{,}00{,}000}$ = 16.3%	$\frac{57{,}000 \times 100}{3{,}74{,}000}$ = 15.2%
3. Operating profit ratio Operating profit/ Total sales	$\frac{15{,}000 \times 100}{3{,}00{,}000}$ = 5%	$\frac{19{,}000 \times 100}{3{,}74{,}000}$ = 5.08%
4. Capital turnover ratio Sales/capital employed	$\frac{3{,}00{,}000}{1{,}00{,}000} = 3$	$\frac{3{,}74{,}000}{1{,}47{,}000} = 2.54$
5. Stock turnover ratio COGS Average stock	$\frac{2{,}36{,}000}{50{,}000}$ = 4.7	$\frac{2{,}98{,}000}{77{,}000}$ = 3.9
6. Net Profit to Networth Net Profit Networth	$\frac{15{,}000 \times 100}{1{,}00{,}000}$ = 15%	$\frac{17{,}000 \times 100}{1{,}17{,}000}$ =14.5%
7. Receivables collection period Average receivables / Average daily sales (Refer to working note)	$\frac{50{,}000}{739.73}$ = 67.6 days	$\frac{82{,}000}{936.99}$ = 87.5 days

Working note:

Average daily sales = Credit sales / 365 $\frac{2{,}70{,}000}{365}$ = Rs.739.73 $\frac{3{,}42{,}000}{365}$ = Rs. 936.99

Analysis:

1. The decline in the Gross profit ratio could be either due to a reduction in the selling price or increase in the direct expenses (since the purchase price has remained the same).
2. Similarly there is a decline in the ratio of Operating expenses to sales. However since operating expenses have little bearing with sales.
3. The operating profit ratio has remained the same in spite of a decline in the Gross profit margin ratio. In fact the company has not benefited at all in terms of operational performance because of the increased sales.
4. The company has not been able to deploy its capital efficiently. This is indicated by a decline in the Capital turnover from 3 to 2.5 times. In case the capital turnover would have remained at 3 the company would have increased sales and profits by Rs. 67,000 and Rs. 3,350 respectively.
5. The decline in the stock turnover ratio implies that the company has increased its investment in stock.
6. Return on Networth has declined indicating that the additional capital employed has failed to increase the volume of sales proportionately.
7. The increase in the Average collection period indicates that the company has become liberal in extending credit on sales.

PROBLEM NO.12

Ratios	Comment
Liquidity	It is reasonably good. All the liquidity ratios are either better or same in both the year compare to the Industry Average. Receivable turnover and collection period is also good.
Operating Profits	Operating Income - ROI and Operating Profit Margin is favorable compare to the Industry average. Operating Income-ROI is stable also.
Financing	More than 50% of financing is s being done with shareholders' funds. It also signifies that dependency on debt compared to other industry players (57%) is low.
Return to the shareholders	Raymond's ROE is 24 per cent in 2016 and 25 per cent in 2017 compared to an industry average of 15 per cent. The ROE is stable and improved over the last year

ASSIGNMENT PROBLEMS

MODEL 1 : MISSING VALUES

PROBLEM NO 1: The following information relates to Beta Ltd. for the year ended 31st March 2013 :

Net working Capital	Rs.2,40,000
Fixed Assets to Proprietor's Fund Ratio	0.60
Working Capital Turnover Ratio	8 times
Return on Equity (ROE)	20%

There is no debt capital.

You are required to calculate:

i) Proprietor's Fund **ii)** Fixed Assets **iii)** Net Profit Ratio.

(A)(M13-5M) (Ans: i.6,00,000 ii.36,0,000 iii.6.25%)

PROBLEM NO 2: 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 Rs.30,00,000; cash sales 25% of credit sales; cash purchases Rs.2,30,000; working capital Rs.2,80,000; closing inventory is Rs.80,000 more than opening inventory.

You are required to calculate:

a) Average Inventory
b) Purchases
c) Average Debtors
d) Average Creditors
e) Average Payment Period
f) Average Collection Period
g) Current Assets
h) Current Liabilities. *(A) (PM) (N19 (O))*

(ANS: (i)3,75,000 (ii)23,30,000 (iii)3,00,000 (iv)2,10,000 (v)36.5 days (vi)45.625 days (vii)current assets 4,80,000 (viii)2,00,000)

PROBLEM NO 3: The total sales (all credit) of a firm are Rs.8,00,000. It has a gross profit margin of 20 per cent and a current ratio of 3. The firm's current liabilities are Rs.1,00,000; inventories Rs.1,00,000 and cash Rs.50,000. (a) Determine the average inventory to be carried by the firm, if an inventory turnover of 4 times is expected? (Assume a 360 day year). (b) Determine the average collection period if the opening balance of debtors is intended to be of Rs.72,222? (Assume a 360 day year). *(A)(similar NEW SM, OLD SM) (Ans.: (a) 1,60,000 (b) 50 days)*

MODEL 2 : PROPRIETORS FUNDS

PROBLEM NO 4: From the following information, prepare a summarized 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

(A)(PM, M17 RTP)(MTP1 M19 (O))

(Ans.: Total of balance sheet: Rs.11, 20,000)

MODEL 3 : PREPARATION OF FINANCIAL STATEMENTS

PROBLEM NO 5: using following data complete balance sheet given below:

Gross profit	Rs.54,000
Shareholder funds	Rs.6, 00,000
Gross profit margin	20%
Credit sales to total sales	80%
Total asset turn over	0.3 times
Inventory turnover	4 times
Average collection period (360 days per a year)	20 days
Current ratio	1.8
Long-term debt of equity	40%

Balance sheet

Liabilities	Amount	assets	Amount
Creditors	?	Cash	?
Long term debts	?	Debtors	?
Share holders fund	?	Inventory	?
		Fixed assets	?

(A)(PM) ***(Ans.: Total of Balance sheet – Rs.9,00,000)***

PROBLEM NO 6:

The following figure and ratios are related to company:

Sales for the year (all credit)	Rs.30,00,000
Gross profit ratio	25%
Fixed assets turnover (basis on cost of goods sold)	1.5
Stock turnover (basis on cost of goods sold)	6
Liquid ratio	1:1
Current ratio	1.5:1
Debtor's collection period	2 months
Reserves and surplus to share capital	0.6:1
Capital gearing ratio	0.5
Fixed assets to net worth	1.20:1

You required to prepare

Balance sheet of the company on the basis of above details.

The statement showing working capital requirement, if the company wants to make a provision for contingencies @ 10% of net working capital including such provision. ***(A)(M10)***

(Ans.: Total of Balance Sheet – Rs.26,25,000; Working Capital – Rs.4,16,667)

PROBLEM NO 7: Ganapati Limited has furnished the following ratios and information relating to the year ended 31st March, 2013.

Sales	Rs.100,00,000
Return on net worth	30%
Rate of income tax	40%

Share capital to reserves	1:1
Current ratio	2.5
Net profit to sales	9%
Inventory turnover (based on cost of goods sold)	10
Cost of goods sold	Rs.40,00,000
Interest on debentures	Rs.2,00,000
Sundry debtors	Rs.6,00,000
Sundry creditors	Rs.5,00,000

You are required to:

c) Calculate the operating expenses for the year ended 31st March, 2013.

d) Prepare a balance sheet as on 31st March in the following format:

Balance Sheet as on 31st March, 2013

Liabilities	Rs.	Assets	Rs.
Share Capital		Fixed Assets	
Reserve and Surplus		Current Assets	
15% Debentures		Stock	
Sundry Creditors		Debtors	
		Cash	

(A) (NEW SM, OLD SM) (ANS: a) Operating Expenses 43,00,000 b) Balance Sheet Total Rs.48,33,333)

PROBLEM NO 8: The following information and financial ratios of PQR Ltd. relate to the year ended 31st December, 2018:

	Particulars	2015
I.	**Accounting Information:**	
	Gross Profit	20% of Sales
	Net profit	10% of sales
	Raw materials consumed	30% of works cost
	Direct wages	20% of works cost
	Stock of raw materials	1 months' usage
	Stock of finished goods	5% of works cost
	Debt collection period	20 days
	All sales are on credit	
II.	**Financial Ratios:**	
	Fixed assets to sales	1:4
	Fixed assets to Current assets	2:1
	Current ratio	2:1
	Long - term loans to Current liabilities	3:1
	Capital to Reserves and Surplus	2:3

If value of fixed assets as on 31st December, 2018 amounted to Rs.40 lakhs, prepare a summarized profit and Loss Account of the company for the year ended 31st December, 2018 and also the Balance Sheet as on 31st December, 2018.Assume 360 days in a year. ***(B)(Similar ,NEW SM,OLD SM)***

(Ans.: Sales Rs.160,00,000; Gross Profit Rs.32,00,000; Net Profit Rs.16,00,000; Stock of Raw Material Rs.3,20,000; Stock of Finished Goods Rs.6,40,000; Debtors Rs.8,89,000; Cash Rs.1,,51,000, balance sheet 60,00,000)

MODEL 4 : PROFITABILITY RATIOS

PROBLEM NO 9: X Co. has made plans for the next year. It is estimated that the company will employ total assets of Rs.8,00,000; 50 per cent of the assets being financed by borrowed capital at an interest cost of 8 per cent per year. The direct costs for the year are estimated at Rs.4,80,000 and all other operating expenses are estimated at Rs.80,000. The goods will be sold to customers at 150 per cent of the direct costs. Tax rate is assumed to be 50 per cent.

You are required to calculate; (i) net profit margin; (ii) return on assets; (iii) asset turnover and (iv) return on owner' s equity. ***(A)(NEW SM, OLD SM,)(Ans.: (i) 11.1%; (ii) 10%(iii) 0. 9 times (iv) 16%)***

PROBLEM NO 10: The capital of Growfast Co. Ltd. is as follows:

10% Preference shares of Rs.10 each	50,00,000
Equity shares of Rs.100 each	70,00,000
	1,20,00,000
Additional Information:	
Profit After Tax at 50%	15,00,000
Depreciation	6,00,000
Equity Dividend Paid	10%
Market price per Equity Share	200

Calculate the following:

(i) The cover for the Preference and Equity Dividends **(ii)** The Earnings per Share

(iii) The Price Earnings Ratio ***(M 19 (O))(ANS.: i. 1.25 ii. 14.29 iii. 14times)***

MODEL 5 : INTRA FIRM AND INTER FIRM COMPARISION

PROBLEM NO 11: Following informations are available for Navya Ltd. along with various ratio relevant to the particulars industry it belongs to. Gives your comments on strength and weakness of Navya Ltd. comparing its ratios with the given industry norms.

Balance Sheet of Navya Ltd. as at 31.03.2017

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Equity Share Capital	48,00,000	Fixed Assets	24,20,000
10% Debentures	9,20,0000	Cash	8,80,000
Sundry Creditors	6,60,000	Sundry debtors	11,00,000
Bills Payable	8,80,000	Stock	33,00,000
Other current Liabilities	4,40,000		-
Total	**77,00,000**	**Total**	**77,00,000**

Statement of Profitability for the year ending 31.03.2017

Particulars	Amount (Rs.)	Amount (Rs.)
Sales		1,10,00,000
Less: Cost of goods sold:	-	-
Material	41,80,000	-
Wages	26,40,000	-
Factory Overhead	12,98,000	81,18,000
Gross Profit	-	28,82,000

Less: Selling and Distribution Cost	11,00,000	-
Administrative Cost	12,28,000	23,28,000
Earnings before Interest and Taxes	-	5,54,000
Less: Interest Charges	-	92,000
Earning before Tax	-	4,62,000
Less: Taxes & 50%	-	2,31,000
Net Profit (PAT)		2,31,000

Industry Norms

Ratios	Norms
1. Current Assets/Current Liabilities	2.5
2. Sales/ debtors	8.0
3. Sales/ Stock	9.0
4. Sales/ Total Assets	2.0
5. Net Profit/ Sales	3.5%
6. Net profit /Total Assets	7.0%
7. Net Profit/ Net Worth	10.5%
8. Total Debt/Total Assets	60.0%

(A) (NEW SM) (ANS.: (i) 2.67; (ii) 10.00; (iii) 3.33; (iv) 1.43; (v) 2.10; (vi) 3.00; (vii) 4.81; (Viii) 37.66)

PROBLEM NO 12: Gamma Limited's financial statements contain the following information:

	Previous year	Current year
Cash	Rs. 2,00,000	Rs. 1,60,000
Sundry debtors	3,20,000	4,00,000
Temporary investments	2,00,000	3,20,000
Stock	18,40,000	21,60,000
Pre-paid expenses	28,000	12,000
Total current assets	**25,88,000**	**30,52,000**
Total assets	**56,00,000**	**64,00,000**
Current liabilities	6,40,000	8,00,000
10% Debentures	16,00,000	16,00,000
Equity share capital	20,00,000	20,00,000
Retained earnings	4,68,000	8,12,000

Statement of profit for the current year

Sales	Rs. 40,00,000
Less : Cost of goods sold	28,00,000
Interest	1,60,000
Net profit	10,40,000
Less : Taxes (0.35)	3,64,000
Profit after taxes	6,76,000
Dividends declared on equity shares	2,20,000

From the above, appraise the financial position of Gamma Limited from the point of view of (i) liquidity, (ii) solvency (iii) profitability, and (iv) activity. **(MTP M 14)**

(Ans.: (i). (a) 3.82:1 (b) 1.1:1, (ii)(a)(1)0.85(2)0.65, (b) 7.5 times (iii) (a) 30%, (b) 16.9%(c)12.2% (d).17.7% (e). 24%, (iv). (a) 11.1 times, (b) 1.4 times, (c) 0.44 times)

THEORY QUESTIONS

1. Discuss any three ratios computed for investment analysis. **(N04)**
2. Discuss the financial ratios for evaluating company performance on operating efficiency and liquidity position aspects. **(N06)**
3. Explain the need of debt-service coverage ratio. **(M07)**
4. Diagrammatically present the DU PONT CHART to calculate return on equity. **(M07)**
5. How return on capital employed is calculated? What is its significance? **(N08)**
6. What is quick ratio? What does it signify? **(N08)**
7. What do you mean by Stock Turnover ratio and Gearing ratio? **(N08)**
8. How is Debt service coverage ratio calculated? What is its significance?
9. Discuss the composition of Return on Equity (ROE) using the DuPont model. **(M09)**
10. Explain the following ratios:
    a) Operating ratio
    b) Price earnings ratio
11. Explain briefly the limitations of Financial ratios. **(N09)**

THE END