Accounting Ratio

Example

TRP Sir → Investment →  Amor Ltd.

Investment
- short term investment — Technical Analysis → CA Final.
- Long term investment — Fundamental Analysis → CA INTER → CAMEL Analysis

C : Capital.
A : Asset.
M : Management.
E : Earning
L : Liquidity.

For above analysis we need ratios.

* 

Got	Total			A	B
30	100	Bad			
30	50	Good	PAT	100,000	300,000
30	30	Best	Invt	500,000	100,00,000
				20%	3%

1. Introduction to Ratio;

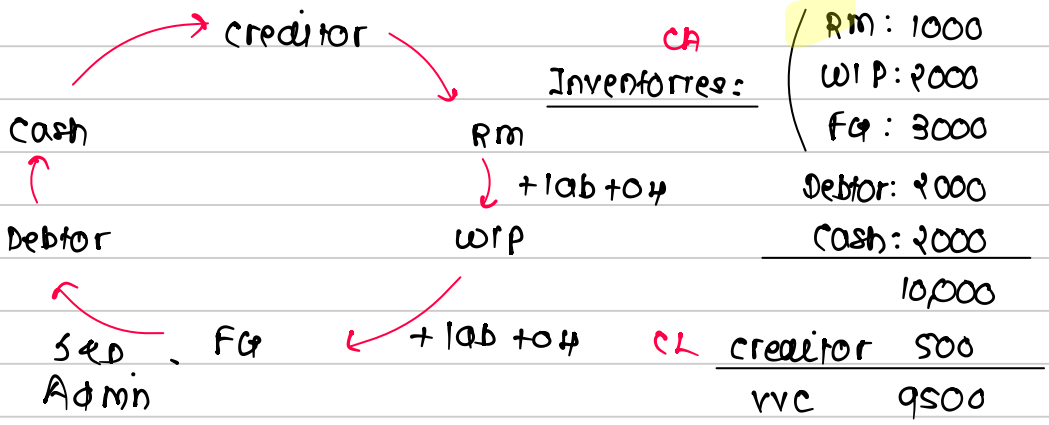
1. It means relationship between any two amounts from Final Accounts.
   (Trading, P&L and Balance sheet)
2. It is important technique used to analyse the trading , P&L and Balance Sheet.
3. It is widely used by banker's, brokers, investors,workers creditors etc.
4. Ratios can be expressed in 3 ways
   a. % form (50%)
   b. Rate form (10 times)
   c. Pure form (1:2)
5. Ratios are calculated to compare
   a. current year performance with last year.
   b. company's performance with that of competitor.

1. Current Ratio / Bankers Ratio / working capital Ratio .

$$\frac{\text{Current Asset}}{\text{Current Liabilities}} = \text{\_\_\_\_:1}$$

Standard Ratio : 2 : 1

working capital



CA
Inventories:
RM : 1000
WIP : 2000
FG : 3000
Debtor: 4000
Cash: 2000
10,000

CL
creditor 500
rvc 9500

Particulars	A	B	C
CA	190,000	110,000	70,000
CL	100,000	100,000	100,000
CR : (CA:CL)	1.9 : 1	1.1 : 1	0.7 : 1
Liquidity	Good		Bad .

2. Quick Ratio / Acid Test Ratio / Liquid Ratio

$$\frac{\text{Quick Assets}}{\text{Current Liabilities}} = \text{\_\_\_\_ : 1}$$

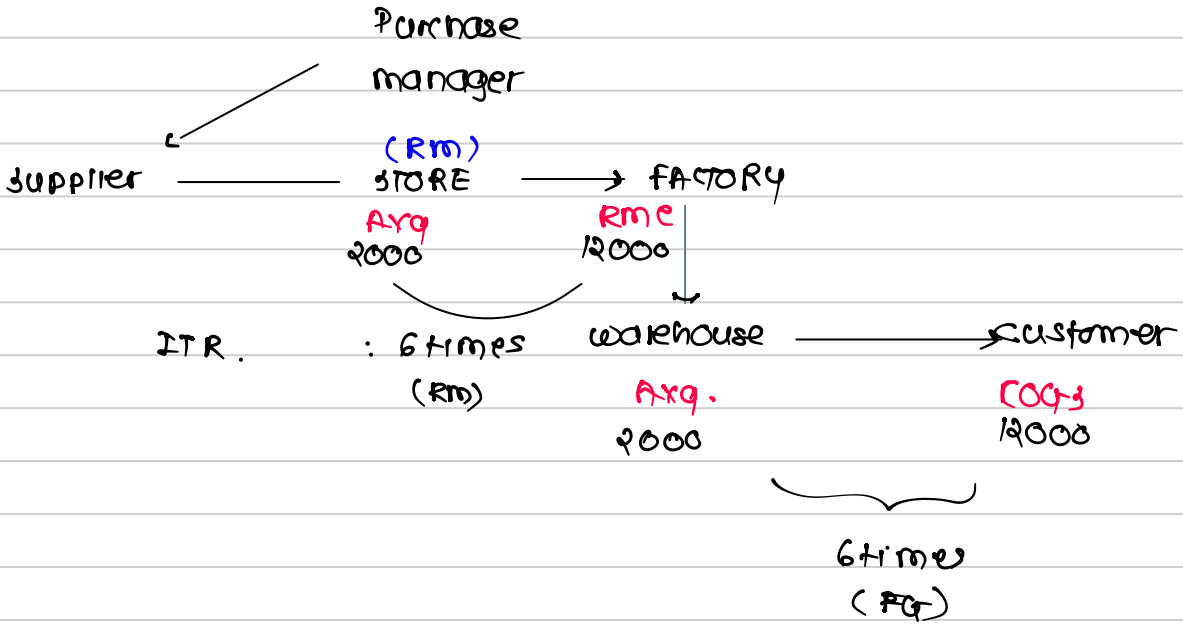
Standard Ratio = 1:1

Quick Asset: Current Assets - stock - prepaid Advance

3a) Stock Turnover Ratio:

$$\frac{\text{COGS}}{\text{Average Stock.}} = \text{\_\_\_\_ times}$$

* COGS = Sales - Gross Profit
* Average Stock = $\frac{\text{opening + closing}}{2}$



b) Average period for which inventory is held:

$$\frac{\text{365 days / 52 weeks / 12 months}}{\text{Ratio in Times}}$$

4.a) Debtors Turnover Ratio

$$\frac{\text{Credit Sales}}{\text{Average Receivables}} = \_\_\_\_ \text{ times}$$

b) Average collection period: / Credit Period.

$$\frac{365/\ 52/\ 12}{\text{Ratio in Times}}$$

c) Average Receivables

$$\frac{\text{opening} + \text{closing}}{2} \qquad \text{Credit Sales} \times \frac{\text{collection Period}}{365/52/12}$$

5.a) Creditors Turnover Ratio:

$$\frac{\text{Credit Purchase}}{\text{Average Payables}} = \_\_\_\_ \text{ Times}$$

b) Average Payment Period: / Credit Period

$$\frac{365/\ 52/12}{\text{Ratio in Times}}$$

c) Average Payables:

$$\frac{\text{opening} + \text{closing}}{2} \qquad \text{credit Purchase} \times \frac{\text{credit Period}}{365/52/12}.$$

6. Fixed Asset Turnover Ratio:

$$\frac{\text{Sales}}{\text{FA}}$$

From the following ratios and information

Question 4. (Illustration 4)

From the following ratios and information given below, PREPARE Trading Account, Profit and Loss Account and Balance Sheet of Aebece Company:

Fixed Assets	₹ 40,00,000
Closing Stock	₹ 4,00,000
Stock turnover ratio	10
Gross profit ratio	25 percent
Net profit ratio	20 percent
Net profit to capital	1/5
Capital to total liabilities	1/2
Fixed assets to capital	5/4
Fixed assets/Total current assets	5/7

Solution:

(WN-1): Capital

$$\frac{\text{Fixed Asset}}{\text{Capital}} = \frac{5}{4}$$

$$\frac{40,00,000}{\text{Capital}} = \frac{5}{4}$$

$$\text{Capital} = \frac{40,00,000 \times 4}{5} = ₹.\ 3200,000$$

(WN-2): Total current Asset

$$\frac{\text{Fixed Asset}}{\text{Total current Asset}} = \frac{5}{7}$$

$$\frac{40,00,000}{\text{Total current Asset}} = \frac{5}{7}$$

$$\therefore \text{Total current Asset} = \frac{40,00,000 \times 7}{5} = ₹\ 5600,000$$

(WN-3): Total Liabilities:

$$\frac{\text{Capital}}{\text{Total Liabilities}} = \frac{1}{2}$$

$$\frac{3200,000}{\text{Total Liabilities}} = \frac{1}{2}$$

$$\therefore \text{Total Liabilities} = \frac{3200,000 \times 2}{1} = ₹\ 64,00,000$$

(WN-4): Net Profit:

$$\frac{\text{Net Profit}}{\text{Capital}} = \frac{1}{5}$$

$$\frac{\text{Net Profit}}{3200000} = \frac{1}{5}$$

$$\therefore \text{Net Profit} = \frac{3200000 \times 1}{5} = ₹\ 640000$$

(WN-5): Sales:

$$\frac{\text{Net Profit}}{\text{Sales}} \times 100 = 20$$

$$\frac{640000}{\text{Sales}} \times 100 = 20$$

$$\therefore \text{Sales} = \frac{640000}{20} \times 100 = ₹\ 3200000$$

(WN-6): COGS

Sales	100		3200000
− Gross Profit	25	?	800000
COGS	75	?	2400000

(WN-7): Average stock:

$$\text{Stock Turnover Ratio} = \frac{\text{COGS}}{\text{Average stock}}$$

$$10 = \frac{2400000}{\text{Average stock}}$$

$$\therefore \text{Average stock} = \frac{2400000}{10} = ₹\ 240000.$$

(WN-8): Opening stock:

$$\text{Average stock} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

$$240000 = \frac{\text{opening stock} + 400000}{2}$$

$$\therefore \text{opening stock} = (240000 \times 2) - 400000 = ₹\ 80000$$

T = 5 P&L = 4 BIS = 5

Trading Account

Particulars	₹	Particulars	₹
To Opening stock (WN-8)	80,000	By Sales (WN-5)	32,00,000
To Purchase	27,20,000		
To Gross Profit (WN-6)	800,000	By closing stock	400,000
	36,00,000		36,00,000

Profit & Loss Account

Particulars	₹	Particulars	₹
To operating expenses	160,000	By Gross Profit	800,000
To Net Profit (WN-4)	640,000		
	800,000		800,000

Balance Sheet

Equity & Liabilities.	₹	Asset	₹
Capital (WN-1)	32,00,000	Fixed Asset	40,00,000
Liabilities (WN-3)	64,00,000	Current Assets (WN-2)	
		Closing stock 400,000	
		other current Asset 5200,000	5600,000
	9600,000		9600,000

X Co. has made plans for the next

Question 3. (Illustration 3)

X Co. has made plans for the next year. It is estimated that the company will employ total assets of ₹ 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 ₹ 4,80,000 and all other operating expenses are estimated at ₹ 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) Operating profit margin (before tax); (ii) net profit margin (after tax); (iii) return on assets (on operating profit after tax); (iv) asset turnover and (v) return on owners' equity.

Solution:

(WN-1): Income statement:

Particulars	Amount	
Sales (4,80,000 × 150%)	7,20,000	
- Direct cost	(4,80,000)	
Gross Profit	2,40,000	
- Operating Expenses	(80,000)	
EBIT	1,60,000	(Operating Profit before Tax)
- Interest [(800,000 × 50%) × 8%]	(32000)	(Non-operating Expenses)
EBT	1,28,000	
- Tax @ 50%	(64,000)	
EAT	64,000	(Net Profit After Tax)

(WN-2): Operating profit after tax:

EBIT	160,000	(Operating Profit before Tax)
- Tax @ 50%	(80,000)	
	80,000	(Operating Profit After Tax)

1. Operating Profit Margin (Before Tax) = $\frac{\text{EBIT}}{\text{Sales}} \times 100 = \frac{160,000}{720,000} \times 100 = 22.22\%$

2. Net Profit Margin (after Tax) = $\frac{\text{EAT}}{\text{Sales}} \times 100 = \frac{64000}{720,000} \times 100 = 8.89\%$

3. Return on Total Asset (Operating Profit After Tax) = $\frac{\text{Operating profit After Tax}}{\text{Total Assets}} \times 100$

$= \frac{80,000}{800,000} \times 100 = 10\%$

4. Asset Turnover Ratio = $\frac{\text{Sales}}{\text{Asset}} = \frac{720,000}{800,000} =$ 0.9 times

5. Return on owners equity = $\frac{\text{EAT}}{\text{Owners equity}} \times 100 = \frac{64000}{(800,000 \times 50\%} \times 100 = 16\%$

Extra:

Total Assets : 800,000

50%	50%
Borrowed funds	Owners Equity
400,000	400,000

Following information relates to Temer Ltd

Question 14. (PP9)

Following information relates to Temer Ltd.:

Debtors Velocity	3 months
Creditors Velocity	2 months
Stock Turnover Ratio	1.5
Gross Profit Ratio	25%
Bills Receivables	₹ 25,000
Bills Payables	₹ 10,000
Gross Profit	₹ 4,00,000
Fixed Assets turnover Ratio	4

Closing stock of the period is ₹ 10,000 above the opening stock.

DETERMINE:

(i) Sales and cost of goods sold
(ii) Sundry Debtors
(iii) Sundry Creditors
(iv) Closing Stock
(v) Fixed Assets

Solution:

i) Sales & COGS: velocity means credit period

Sales	100	?	1600,000
- Gross Profit	25		400,000
COGS	75	?	1200,000

ii) Sundry Debtors:

a) Account receivable = $\frac{\text{credit sales}}{} \times \frac{\text{credit period}}{12}$

$1600,000 \times \frac{3}{12} = ₹\ 4,00,000$

b) Debtors = Account receivable - Bills Receivable
= 400,000 - 25000
= ₹ 375000 .

iii) Sundry Creditors:

a) Average stock:

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

$$1.5 = \frac{1200,000}{\text{Average Stock}}$$

$$\therefore \text{Average Stock} = \frac{1200,000}{1.5} = ₹\ 800,000$$

b) Opening & Closing stock:

Let's assume opening stock = x

$\therefore$ Closing stock = $x + 10,000$

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

$$800,000 = \frac{x + x + 10,000}{2}$$

$$(800,000 \times 2) - 10,000 = 2x$$

$$1590,000 = 2x$$

$$x = 795000$$

$\therefore$ opening stock = 795000

closing stock = 795000 + 10,000 = 805000

c) Credit Purchase

opening + Purchases - closing = COGS

795000 + Purchases − 805000 = 1200,000

$\therefore$ Purchase = 12,10,000.

d) Account Payable:

$$\text{Credit Purchase} \times \frac{\text{Credit Period}}{12}$$

$$12,10,000 \times \frac{2}{12} = ₹\ 201667$$

e) Creditors:

Account Payable - Bills Payable

= 201667 - 10,000

= 191667

iv) Closing stock = ₹ 805000

v) Fixed Asset:

$$\text{Fixed Asset Turnover Ratio} = \frac{\text{Sales}}{\text{Fixed Asset}}$$

$$4 = \frac{1600,000}{\text{Fixed Asset}}$$

$$\therefore \text{Fixed Asset} = \frac{1600,000}{4} = ₹\ 400,000.$$

Question 7. (PP1)

The total sales (all credit) of a firm are ₹ 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 ₹ 96,000; inventories ₹ 48,000 and cash ₹ 16,000.

(a) DETERMINE the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected? (Assume 360 days a year).

(b) DETERMINE the average collection period if the opening balance of debtors is intended to be of ₹ 80,000? (Assume 360 days a year).

Solution:

a) Average Inventory:

i) COGS:

Sales	100	640,000
- Gross Profit	15	? 96000
COGS	85	? 544000

ii) Average Inventory:

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

$$5 = \frac{544000}{\text{Average Stock}}$$

$$\text{Average Stock} = \frac{544000}{5} = ₹\ 108800$$

b) Average Collection Period:

i) Current Assets:

$$\frac{\text{Current Asset}}{\text{Current Liabilities}} = 2.5$$

$\therefore$ Current Asset $= 2.5 \times 96000 =$ ₹ 240,000.

ii) Closing Debtors

Current Assets	240,000
- Inventories	(48000)
- Cash	(16000)
	176000

iii) Average Debtors:

$$\frac{\text{Opening} + \text{Closing}}{2}$$

$$= \frac{80{,}000 + 176000}{2}$$

$$= ₹\ 128{,}000$$

iv) Debtors Turnover Ratio:

$$\frac{\text{Sales}}{\text{Average Debtors}}$$

$$= \frac{640{,}000}{128000}$$

$$= 5 \text{ times}$$

v) Average Collection Period:

$$\frac{360}{5} = 72 \text{ days}.$$

The following accounting information and

Question 8. (PP3)

The following accounting information and financial ratios of PQR Ltd. relates to the year ended 31st March, 2023:

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

If value of Fixed Assets as on 31st March, 2022 amounted to ₹ 26 lakhs, PREPARE a summarised Profit and Loss Account of the company for the year ended 31st March, 2023 and also the Balance Sheet as on 31st March, 2023.

Solution:

(WN-1) : Sales :

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

$$\frac{2600,000}{\text{Sales}} = \frac{1}{3}$$

$$\therefore \text{Sales} = 2600,000 \times 3$$

$$= 7800,000$$

(WN-2) : Current Assets

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

$$\frac{2600,000}{\text{Current Asset}} = \frac{13}{11}$$

$$\text{Current Asset} = \frac{2600,000}{13} \times 11$$

$$= 2200,000$$

(WN-3): Cost / Works Cost:

Sales	100	7800,000
- Gross Profit	15	? 1170,000
Cost / Works cost	85	? 6630,000

(WN-4): Net Profit: $7800,000 \times 8\% = 624000$

(WN-5): Raw material: $6630,000 \times 20\% = 1326000$

(WN-6): Direct wages: $6630,000 \times 10\% = 663000$

(WN-7): Stock of RM: $1326000 \times \frac{3}{12} = 331500$

(WN-8): Stock of FG: $6630,000 \times 6\% = 397800$

(WN-9): Debtors: $7800,000 \times \frac{60}{365} = 12,82,192.$

(WN-10): Current liabilities:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{2}{1}$$

$$\frac{2200,000}{\text{Current liabilities}} = 2$$

$$\therefore \text{Current Liabilities} = \frac{2200,000}{2} = 1100,000.$$

(WN-11): Long term loans

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

$$\frac{\text{Long term loan}}{1100,000} = 2$$

$$\therefore \text{Long term loan} = 2 \times 1100,000 = 2200,000$$

(WN-12): Share Capital and Reserves & Surplus:

Fixed Assets	2600,000
current Assets	2200,000
Total Assets	4800,000
long term loan	(2200,000)
current Liabilities	(1100,000)
capital & Reserve	1500,000

(1:4)

Share Capital	Reserves & Surplus
300,000	1200,000

Trading & P&L Account

Particulars	₹	Particulars	₹
To Direct material (WN-5)	1326000	By Sales (WN-1)	7800,000
To Direct wages (WN-6)	663000		
To Work on	4641000		
To Gross Profit c/d (WN-3)	1170,000		
	7800,000		7800,000
To Operating Expenses	546000	By Gross Profit b/d	1170,000
To Net Profit (WN-4)	624000		
	1170,000		1170,000

Balance sheet

Equity & Liabilities	₹	Assets		₹
Share Capital	300,000	Fixed Asset		2600,000
Reserves & Surplus	1200,000			
		current Asset		
Long term loans	2200,000	Stock of RM	331500	
		Stock of FG	397800	
current liabilities	1100,000	Debtors	1282192	
		Cash	188508	2200,000
	4800,000			4800,000

Question 9. (PP4)

Ganpati Limited has furnished the following ratios and information relating to the year ended 31st March, 2023:

Sales	₹ 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	₹ 18,00,000
Interest on debentures	₹ 60,000
Receivables	₹ 2,00,000
Payables	₹ 2,00,000

You are required to:

(a) CALCULATE the operating expenses for the year ended 31st March, 2023.

(b) PREPARE a Balance Sheet as on 31st March, 2023 in the following format:

Balance Sheet as on 31st March, 2023

Liabilities	₹	Assets	₹
Share Capital		Fixed Assets	
Reserve and Surplus		Current Assets	
15% Debentures		Stock	
Payables		Receivables	
		Cash	

Solution:

(WN- 1.) Net Profit = 60,00,000 × 6.25% = 375000

(WN- 2.) Net worth =

$$\text{Return on net worth} = \frac{\text{Net Profit}}{\text{Net worth}} \times 100$$

$$25 = \frac{375000}{\text{Net worth}} \times 100$$

$$\text{Net worth} = \frac{375000}{25} \times 100 = 1500,000.$$

(WN- 3). Share capital and Reserves & Surplus

Share capital	7	?	1050,000
Reserves Surplus	3	?	450,000
Net worth	10		1500,000

(WN-4) : Stock

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

$$12 = \frac{1800,000}{\text{Stock}}$$

$$\text{Stock} = \frac{1800,000}{12} = 150,000$$

(WN-5): Debenture:

Debenture × 15% = Interest

Debenture × 15% = 60,000

$$\text{Debenture} = \frac{60,000}{15\%} = 400,000$$

(WN-6) : Current Assets:

$$\frac{\text{current Asset}}{\text{current Liabilities}} = 2$$

$$\frac{\text{current Asset}}{200,000} = 2$$

∴ current Asset = 2 × 200,000 = 400,000 .

(current Liabilites means payables)

(WN-7) : Fixed Asset:

Share Capital	1050,000
Reserves & surplus	450,000
15% Debenture	400,000
Payables	200,000
	2100,000
Current Assets	(400,000)
	1700,000

a) Operating Expenses:

Particulars			₹
Sales			60,00,000
- COGS			(18,00,000)
Gross Profit			42,00,000
- Operating Expense			33,90,000
EBIT			8,10,000
- Interest			(60,000)
EBT	100	?	7,50,000
- Tax	50	?	3,75,000
EAT	50		3,75,000

b)

Balance Sheet as on 31st March, 2023

Liabilities	₹	Assets		₹
Share Capital	10,50,000	Fixed Assets		17,00,000
Reserve and Surplus	4,50,000	Current Assets		
15% Debentures	4,00,000	Stock	1,50,000	
Payables	2,00,000	Receivables	2,00,000	
		Cash	50,000	4,00,000
	21,00,000			21,00,000

Following is the abridged Balance Sheet

Question 2. (Illustration 2)

Following is the abridged Balance Sheet of Alpha Ltd.:

Particulars	₹	Assets	₹	₹
Share Capital	1,00,000	Land and Buildings		80,000
Profit and Loss Account	17,000	Plant and Machineries	50,000	
Current Liabilities	40,000	Less: Depreciation	15,000	35,000
				1,15,000
		Stock	21,000	
		Receivables	20,000	
		Bank	1,000	42,000
Total	1,57,000	Total		1,57,000

With the help of the additional information furnished below, you are required to PREPARE Trading and Profit & Loss Account and Balance Sheet as at 31 st March, 2023:

(i) The company went in for re-organisation of capital structure, with share capital remaining the same as follows:

Share capital	50%
Other Shareholders' funds	15%
5% Debentures	10%
Current Liabilities	25%

Debentures were issued on 1st April, interest being paid annually on 31st March.

(ii) Land and Buildings remained unchanged. Additional plant and machinery has been bought and a further ₹ 5,000 depreciation was written off.
(The total fixed assets then constituted 60% of total fixed and current assets.)

(iii) Working capital ratio was 8 : 5.

(iv) Quick assets ratio was 1 : 1.

(v) The receivables (four-fifth of the quick assets) to sales ratio revealed a credit period of 2 months. There were no cash sales.

(vi) Return on net worth was 10%.

(vii) Gross profit was at the rate of 15% of selling price.

(viii) Stock turnover was eight times for the year.

Ignore Taxation.

Solution:

(WN-1) : Total Liabilities :

Particulars	%		₹
Share capital	50		100,000
Other shareholders funds	15	?	30,000
5% Debenture	10	?	20,000
Current Liabilities	25	?	50,000
Total Liabilities	100	?	200,000

(W.N-2) : Total Asset:

Total Liabilities = Total Asset = 200,000

Fixed Asset (60%)	Current Asset (40%)
120,000	80,000

Land & Building	Plant & machinery
80,000	40,000 (120,000 - 80,000)

(W.N-3) : Plant & machinery:

Gross Amount		60,000
(-) Depreciation	(15000 + 5000)	(20,000)
Net Amount		40,000

(W.N-4): Stock:

$$\text{Quick Ratio} = \frac{\text{Current Asset - Stock}}{\text{Current Liabilities}}$$

$$1 = \frac{80,000 - \text{Stock}}{50,000}$$

$$50,000 = 80,000 - \text{Stock}$$

$$\text{Stock} = 80,000 - 50,000 = 30,000.$$

(W.N-5) : Receivables

$$(\text{current asset} - \text{stock}) \times \frac{4}{5}$$

$$= (80,000 - 30,000) \times \frac{4}{5}$$

$$= 40,000.$$

(W.N-6): Sales:

$$\text{credit sales} \times \frac{\text{credit period}}{12} = \text{Receivables}$$

$$\text{credit sales} \times \frac{2}{12} = 40,000$$

$$\text{credit sales} = \frac{40,000 \times 12}{2} = 240,000.$$

(WN-7) : Net Profit :

Share capital	100,000
Other shareholders funds	30,000
Net worth	130,000
	x 10 %
Net Profit	13000

(WN-8) : Gross Profit & COGS :

Sales	100		240,000
- Gross Profit	15	?	36000
COGS	85	?	204000

Trading and P&L Account

Particulars	₹	Particulars	₹
To COGS	204000	By Sales	240,000
To Gross Profit	36000		
	240,000		240,000
To Debenture Interest (20,000 x 5% x 12/12)	1000	By Gross Profit	36000
To Operating Expenses	22000		
To Net Profit	13000		
	36000		36000

Balance Sheet

Equity & Liabilities	₹	Assets		₹
Share Capital	100,000	Fixed Asset		
Other shareholders funds	30,000	land & Building		80,000
		Plant & machinery	60,000	
5% Debenture	20,000	(-) Depreciation	(20,000)	40,000
Current Liabilities	50,000			
		Current Asset:		
		Stock	30,000	
		Debtors	40,000	
		Cash	10,000	80,000
	200,000			200,000

From the following information and ratios, PREPARE the

Question 15. (PP10)

From the following information and ratios, PREPARE the Balance sheet as at 31st March, 2023 and Income Statement for the year ended on that date for M/s Ganguly & Co -

Average Stock	₹10 lakh
Current Ratio	3:1
Acid Test Ratio	1:1
PBIT to PBT	2.2:1
Average Collection period (Assume 360 days in a year)	30 days
Stock Turnover Ratio (Use sales as turnover)	5 times
Fixed assets turnover ratio	0.8 times
Working Capital	₹10 lakh
Net profit Ratio	10%
Gross profit Ratio	40%
Operating expenses (excluding interest)	₹ 9 lakh
Long term loan interest	12%
Tax	Nil

Solution:

(W.N-1) : Current Asset & Liabilities:

current asset	3	?	1500,000
- current liabilities	1	?	500,000
working capital	2		1000000

(W.N-2): Stock:

$$\text{Acid Test Ratio} = \frac{\text{current asset - stock}}{\text{current liabilities}}$$

$$1 = \frac{1500,000 - \text{stock}}{500,000}$$

$$500,000 = 1500,000 - \text{stock}$$

$\therefore$ stock = 1500,000 - 500,000 = 10,00,000 .

(W.N-3): Sales:

$$\text{Stock Turnover Ratio} = \frac{\text{Sales}}{\text{Average stock}}$$

$$5 = \frac{\text{Sales}}{10,00,000}$$

$\therefore$ Sales = 10,00,000 x 5 = 50,00,000 .

(WN-4): Fixed Asset:

$$\text{Fixed Asset Turnover Ratio} = \frac{\text{Sales}}{\text{Fixed Asset}}$$

$$0.8 = \frac{50,00,000}{\text{Fixed Asset}}$$

$$\therefore \text{Fixed Asset} = \frac{50,00,000}{0.8} = 6250,000.$$

(WN-5): Net Profit: 50,00,000 × 10% = 500,000

(WN-6): Gross Profit and COGS:

Sales	100	50,00,000
- Gross Profit	40	? 20,00,000
COGS	60	? 30,00,000

(WN-7): Debtors

$$\frac{\text{credit sales}}{} \times \frac{\text{credit Period}}{360}$$

$$= 50,00,000 \times \frac{90}{360}$$

$$= 4,16,667$$

1. Income statement:

Particulars	₹
Sales	50,00,000
- COGS	(30,00,000)
Gross Profit	20,00,000
- Operating Expenses	(9,00,000)
PBIT	1100,000
- Interest	600,000
PBT	500,000

(WN-8): Long term loan

$$\text{Loan} \times 12\% = \text{Interest}$$

$$\text{Loan} = \frac{600,000}{12\%} = 50,00,000$$

Balance sheet

Equity & Liabilities	₹	Assets		₹
share capital	2250000	Fixed Assets		6750000
Long term loans	5000000	current Assets		
		stock	1000000	
current Liabilities	500000	debtor	416667	
		cash	83333	1500000
	7750000			7750000

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Proprietary Funds = Net worth = share capital & Rs = {Total Asset / total Liab}

Following information has been provided

Question 11. (PP6)

Following information has been provided from the books of Laxmi Pvt. Ltd. for the year ending on 31st March, 2023:

Net Working Capital	₹ 4,80,000
Bank overdraft	₹ 80,000
Fixed Assets to Proprietary ratio	0.75
Reserves and Surplus	₹ 3,20,000
Current ratio	2.5
Liquid ratio (Quick Ratio)	1.5

You are required to PREPARE a summarised Balance Sheet as at 31 st March, 2023 assuming that there is no long term debt.

Solution:

(WN-1): Current Assets & Liabilities:

Current Asset	2.5	? 800,000
- Current Liabilities	1	? 320,000
working capital	1.5	480,000

(WN-2): Stock:

$$\text{Quick Ratio} = \frac{\text{Current Asset - Stock}}{\text{Current Liabilities}}$$

$$1.5 = \frac{800,000 - \text{Stock}}{320,000}$$

$$1.5 \times 320,000 = 800,000 - \text{Stock}$$

$$\therefore \text{Stock} = 320,000$$

(WN-3): Proprietary Funds

$$\frac{\text{Fixed Asset}}{\text{Proprietary Funds}} = 0.75$$

$$\therefore \text{Fixed Assets} = 0.75 \times \text{Proprietary funds}$$

Proprietary Fund = Fixed Asset + Current Asset - current Liabilities - Long term Liabilities

$$PF = 0.75PF + 800,000 - 320,000 - NIL$$

$$0.25PF = 480,000$$

$$PF = 1920,000$$

(WN-4): Share Capital:

Proprietary Funds	1920,000
- Reserves & surplus	(320,000)
	1600,000

(WN-5): Fixed Asset:

Fixed Assets = 0.75 x Proprietary funds.
= 0.75 x 1920,000
= 1440,000.

Balance sheet

Equity & Liabilities		₹	Assets		₹
Share Capital		1600,000	Fixed Asset		1440,000
Reserves & surplus		320,000			
			Current Asset		
Current Liabilities			Stock	320,000	
Bank o/d	80,000		other current Asset	480,000	800,000
Creditors	240,000	320,000			
		2240,000			2240,000

Using the following information

Question 10. (PP5)

Using the following information, PREPARE the balance sheet:

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

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

	₹		₹
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	?

Solution:

Balance sheet

Assets	₹	Equity & Liabilities	₹
Cash	50,000	Notes & Payables	100,000
Account receivable	50,000	Long term debt	100,000
Inventory	100,000	Common stock	100,000
Plant & Equipment	200,000	Retained Earning	100,000
	400,000		400,000

(W.N-1) : Long term debt:

a) Net worth = Capital + Retained Earning
= 100,000 + 100,000
= 200,000

b) $\frac{\text{Long term debt}}{\text{Net worth}} = 0.5$

$\frac{\text{Long term debt}}{200,000} = 0.5$

∴ Long term debt = 0.5 × 200,000 = 100,000.

(W.N-2): Sales:

a) Total liabilities = Total Assets = 400,000

b) Total Asset Turnover Ratio = Sales / Total Asset

$2.5 = \frac{\text{Sales}}{400,000}$

∴ Sales = 2.5 × 400,000 = 10,00,000.

(W.N-3): Gross Profit & COGS:

Sales	100		10,00,000
- Gross Profit	10	?	1,00,000
COGS	90	?	9,00,000

(W.N-4): Debtors / Account receivable

$= \text{Credit Sales} \times \frac{\text{Credit Period}}{360}$

$= 10,00,000 \times \frac{18}{360}$

= 50,000.

(W.N-5): Inventory:

Inventory Turnover Ratio = COGS / Inventory

$9 = \frac{900,000}{\text{Inventory}}$

∴ Inventory = $\frac{900,000}{9}$ = 100,000

(W.N-6): Cash:

Acid-Test Ratio = (Current Asset - Stock) / Current Liabilities

$1 = \frac{\text{Current Asset} - 100,000}{100,000}$

∴ Current Asset = 200,000

Current Asset	200,000
- Stock	(100,000)
- A/c receivable	(50,000)
Cash	50,000

Question 13. (PP8)

Gig Ltd. has furnished the following information relating to the year ended 31st March, 2022 and 31st March, 2023:

	31st March, 2022	31st March, 2023
	(₹)	(₹)
Share Capital	40,00,000	40,00,000
Reserve and Surplus	20,00,000	25,00,000
Long term loan	30,00,000	30,00,000

- Net profit ratio: 8%
- Gross profit ratio: 20%
- Long-term loan has been used to finance 40% of the fixed assets.
- Stock turnover with respect to cost of goods sold is 4.
- Debtors represent 90 days sales.
- The company holds cash equivalent to 1½ months cost of goods sold.
- Ignore taxation and assume 360 days in a year.

You are required to PREPARE Balance Sheet as on 31st March, 2023 in the following format:

Liabilities	(₹)	Assets	(₹)
Share Capital	-	Fixed Assets	-
Reserve and Surplus	-	Sundry Debtors	-
Long-term loan	-	Closing Stock	-
Sundry Creditors	-	Cash in hand	-

Solution:

Balance sheet

Equity & Liabilities	₹	Asset	₹
Share capital	40,00,000	Fixed Asset	7500,000
Reserves & surplus	2500,000	sundry Debtors	156250
Long term loan	30,00,000	closing stock	1250,000
sundry creditors	1437500	cash in hand	625000
	10937500		10937500

(WN-1) : COGS :

Reserves & surplus

a) as on 31-3-23		2500,000
b) as on 31-3-22		20,00,000
Net Profit (₹)		5,00,000
÷ Net Profit %		÷ 8%
Sales	100	6250,000
- Gross Profit	20 ?	1250,000
COGS	80 ?	50,00,000

(WN-2) : Stock :

$$\text{Stock Turnover Ratio} = \frac{\text{COGS}}{\text{Stock}}$$

$$4 = \frac{50,00,000}{\text{Stock}}$$

$$\therefore \text{Stock} = \frac{50,00,000}{4} = 1250,000$$

(WN-3) : Debtors :

$$6250,000 \times \frac{90}{360} = 1562500.$$

(WN-4) : Cash :

$$50,00,000 \times \frac{1.5}{12} = 625000$$

(WN-5) : Fixed Asset :

Loan funds	+	Own Funds	=	Fixed Asset
40	+	60	=	100
30,00,000		(?)		7500,000 .

Following information are available for Navya Ltd

Question 6. (Illustration 6)

Following information are available for Navya Ltd. along with various ratios relevant to the particular industry it belongs to. APPRAISE your comments on strength and weakness of Navya Ltd. comparing its ratios with the given industry norms.

Navya Ltd.

Balance Sheet as at 31.3.2023

Liabilities	(₹)	Assets	(₹)
Equity Share Capital	48,00,000	Fixed Assets	24,20,000
10% Debentures	9,20,000	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 31.3.2023

Particulars	(₹)	(₹)
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	Norm
Current Ratio	2.5
Receivables Turnover Ratio	8.0
Inventory Turnover Ratio (based on Sales)	9.0
Total Assets Turnover Ratio	2.0
Net Profit Ratio	3.5%
Return on Total Assets (on EBIT)	7.0%
Return on Net worth (Based on Net profit)	10.5%
Total Debt/Total Assets	60.0%

Ratio	Formula	Navya Ltd	Industry Norms
1. Current Ratio	Current Asset / current Liabilities	5280,000 / 1980,000 = 2.67 (Good)	2.5
2. Receivable Turnover Ratio	Sales / Debtors	1,10,00,000 / 11,00,000 = 10 (Good)	8
3. Inventory Turnover Ratio	Sales / Stock	1,10,00,000 / 33,00,000 = 3.33 (Bad)	9
4. Total Asset Turnover Ratio	Sales / Total Asset	1,10,00,000 / 7700,000 = 1.43 (Bad)	2
5. Net Profit Ratio	PAT / Sales ×100	231000 / 1,10,00,000 ×100 = 2.1% (Bad)	3.5%
6. Return on Total Asset	EBIT / Total Asset ×100	554000 / 7700,000 ×100 = 7.19% (Good)	7%
7. Return on Net worth	PAT / Net worth ×100	231000 / 4800,000 ×100 = 4.81% (Bad)	10.5%
8. Total Debt to Total Asset	Total Debt / Total Asset ×100	2900,000 / 7700,000 ×100 = 37.66% {less Risky}	60%

Comments:

1. The position of Navya Ltd. is better than the industry norm with respect to Current Ratio and Receivables Turnover Ratio.
2. However, the Inventory turnover ratio and Total Asset Turnover ratio is poor comparing to industry norm indicating that company is inefficient to utilize its inventory and assets.
3. The firm also has its net profit ratio and return on net worth ratio much lower than the industry norm.
4. Total debt to total assets ratio is lower that the industry standard which suggests that the firm is less levered by debt and more by equity resulting in less risky company.

In a meeting held at Solan towards the end of

Question 1. (Illustration 1)

In a meeting held at Solan towards the end of 2021-22, the Directors of 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 01.04.2022 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 STATEMENT

Particulars	2021-22 (₹)		2022-23 (₹)	
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: Operating Expenses:				
Warehousing	13,000		14,000	
Transport	6,000		10,000	
Administrative	19,000		19,000	
Selling	11,000	49,000	14,000	57,000
Net Profit		15,000		19,000

BALANCE SHEET

Assets & Liabilities	2021-22 (₹)		2022-23 (₹)	
Fixed Assets (Net Block)	-	30,000	-	40,000
Receivables	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	
Payables	50,000		76,000	
Total Current Liabilities (CL)	50,000		76,000	
Working Capital (CA - CL)		70,000		1,07,000
Net 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 2021-22 and 2022-23:

(i) Gross Profit Ratio
(ii) Operating Expenses to Sales Ratio
(iii) Operating Profit Ratio
(iv) Capital Turnover Ratio
(v) Stock Turnover Ratio
(vi) Net Profit to Net Worth Ratio
(vii) Receivables 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 ₹ 40,000 for the year 2021-22. Ignore Taxation.

Computation of Ratios:

Particulars	Formula	21-22	22-23
1. Gross Profit Ratio	$\frac{\text{Gross Profit}}{\text{Sales}} \times 100$	$\frac{64000}{300000} \times 100$ = 21.33%	$\frac{76000}{374000} \times 100$ = 20.32%
2. Operating expenses to sales ratio	$\frac{\text{Operating exp}}{\text{Sales}} \times 100$	$\frac{49000}{300000} \times 100$ = 16.33%	$\frac{57000}{374000} \times 100$ = 15.24%
3. Operating Profit Ratio (EBIT)	$\frac{\text{Operating Profit}}{\text{Sales}} \times 100$	$\frac{15000}{300000} \times 100$ = 5%	$\frac{19000}{374000} \times 100$ = 5.08%
4. Capital Turnover Ratio	$\frac{\text{Sales}}{\text{Capital Employed}}$	$\frac{300000}{100000}$ = 3 times	$\frac{374000}{147000}$ = 2.54 times
5. Stock Turnover Ratio	$\frac{\text{COGS}}{\text{Average Stock}}$	$\frac{236000}{50000}$ = 4.72 times	$\frac{298000}{77000}$ = 3.87
(WN-1): Average Stock	$\frac{\text{Opening} + \text{Closing}}{2}$	$\frac{40000 + 60000}{2}$ = 50,000.	$\frac{60000 + 94000}{2}$ = 77000.
6. Net Profit to Net worth Ratio (Net worth = Capital + R&S)	$\frac{\text{Net Profit}}{\text{Net worth}} \times 100$	$\frac{15000}{100000} \times 100$ = 15%	$\frac{19000}{117000} \times 100$ = 16.24%
7. a) Debtors Turnover Ratio	$\frac{\text{Credit Sales}}{\text{Debtors}}$	$\frac{270000}{50000}$ = 5.4	$\frac{342000}{82000}$ = 4.17
b) Average Collection period	$\frac{365}{\text{Ratio in Times}}$	$\frac{365}{5.4}$ = 67.59 days	$\frac{365}{4.17}$ = 87.53 days.

Comments :

The capital structure of Beta

Question 7. (PP2)

The capital structure of Beta Limited is as follows:

Equity share capital of ₹ 10 each	8,00,000
9% preference share capital of ₹ 10 each	3,00,000
	11,00,000

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

Solution:

(W.N-1): Income statement

Particulars	₹
PAT	270,000
- Preference Dividend (300000 × 9%)	(27000)
NP for ES	243000
- Equity Dividend (800000 × 20%)	(160000)
Retained Earning	83000

a) Dividend yield on Equity shares

$$\frac{\text{Dividend per share}}{\text{Market Price per share}} \times 100$$

$$\frac{(10 \times 20\%)}{40} \times 100$$

$$\frac{2}{40} \times 100$$

5%

b) Dividend coverage ratio:

a) Preference Dividend coverage ratio = PAT / Preference Dividend

= 270,000 / 27000

= 10 times.

b) Equity Dividend coverage ratio = NP for Es / Equity Dividend

= 243000 / 160,000

= 1.52 times

3) EPS:

NP for Es	243000
÷ NO of Es (800,000 ÷ 10)	÷ 80,000
	3.04

4. Price-Earning Ratio:

Market Price per share / Earning Per share = 40 / 3.04 = 13.16 times.

Q 15
Q pp 7
Q pp 11.

From the following information, you are required

Question 16. (PP11)

From the following information, you are required to PREPARE a summarised Balance Sheet for Rudra Ltd. for the year ended 31st March, 2023:

Debt Equity Ratio	1:1
Current Ratio	3:1
Acid Test Ratio	8:3
Fixed Asset Turnover (on the basis of sales)	4
Stock Turnover (on the basis of sales)	6
Cash in hand	₹ 5,00,000
Stock to Debtor	1:1
Sales to Net Worth	4
Capital to Reserve	1:2
Gross Profit	20% of Cost
COGS to Creditor	10:1

Interest for entire year is yet to be paid on Long Term loan @ 10%.

Solution:

Balance sheet

Equity & Liabilities		₹	Assets		₹
Share Capital	20/4	10,00,000	Fixed Asset	20/4	30,00,000
Reserves & Surplus		20,00,000			
			Current Asset		
Long term loan	20/4	30,00,000	Stock	20/6	20,00,000
			Debtor	20/6	20,00,000
Current Liabilities			Cash		5,00,000
Creditor (20/12)	20/9	10,00,000			
Interest	+	3,00,000			
Other CL	5,00,000/3	2,00,000			
		75,00,000			75,00,000

Let sales be 20

(WN-1) : Fixed Asset

$$\text{Fixed Asset Turnover Ratio} = \frac{\text{Sales}}{\text{Fixed Asset}}$$

$$4 = \frac{20}{\text{Fixed Asset}}$$

$$\therefore \text{Fixed Asset} = \frac{20}{4}$$

(WN-2) : Stock :

$$\text{Stock Turnover Ratio} = \frac{\text{Sales}}{\text{Stock}}$$

$$6 = \frac{x}{\text{Stock}}$$

$$\therefore \text{Stock} = \frac{x}{6}$$

(WN-3) : Debtors :

Stock to Debtor = 1 : 1

means Stock = Debtor = $\frac{x}{6}$

(WN-4) : Sales to Net worth :

$$\frac{\text{Sales}}{\text{Net worth}} = 4$$

$$\frac{x}{\text{Net worth}} = 4$$

$$\therefore \text{Net worth} = \frac{x}{4}$$

(WN-5) : COGS & GP :

Sales	120	x
- Gross Profit	20	?
COGS	100	?

$$\text{Gross Profit} = \frac{20x}{120} = \frac{x}{6}$$

$$\text{COGS} = \frac{100x}{120} = \frac{5x}{6}$$

(W.N-6): Creditor:

$$\frac{\text{COGS}}{\text{creditor}} = \frac{10}{1}$$

$$= \frac{\left(\frac{5x}{6}\right)}{\text{creditor}} = 10$$

$$= \frac{5x}{6} = 10 \times \text{creditors}$$

$$= \frac{5x}{6 \times 10} = \text{creditors}$$

$$= \frac{5x}{60} = \text{creditors}$$

$$= \text{creditors} = \frac{x}{12}$$

(W.N-7): Current Liabilities:

$$= \frac{\text{current assets}}{\text{current liabilities}} = \frac{3}{1}$$

$$= \frac{\text{stock} + \text{debtor} + \text{cash}}{\text{current liabilities}} = \frac{3}{1}$$

$$= \frac{x}{6} + \frac{x}{6} + 500{,}000 = 3 \times \text{current liabilities}$$

$$= \frac{2x}{6} + 500{,}000 = 3 \times \text{current liabilities}.$$

$$= \frac{2x}{6 \times 3} + \frac{500{,}000}{3} = \text{current liabilities}$$

$$= \frac{2x}{18} + \frac{500{,}000}{3} = \text{current liabilities}$$

$$= \frac{x}{9} + \frac{500{,}000}{3} = \text{current liabilities}.$$

(W.N-8): Debt Equity Ratio:

$$\frac{\text{Debt}}{\text{Equity}} = \frac{1}{1}$$

$$\left(\text{Equity} = \text{Net worth} = \frac{x}{4}\right)$$

(Equity = Equity share capital + R&S)

$$\text{Debt} = \text{Equity (Net worth)} = \frac{x}{4}$$

(WN-9) : Sales

Total Equity & Liabilities = Total Assets

Equity + Long term loan + current Liabilities = Fixed Asset + Current Asset

$$\frac{x}{4} + \frac{x}{4} + \frac{x}{9} + \frac{500,000}{3} = \frac{x}{4} + \frac{x}{6} + \frac{x}{6} + 500,000$$

(Eliminate x/4)

$$\frac{x}{4} + \frac{x}{9} + \frac{500,000}{3} = \frac{x}{6} + \frac{x}{6} + 500,000$$

$$\frac{x}{4} + \frac{x}{9} + \frac{500,000}{3} = \frac{2x}{6} + 500,000$$

$$\frac{x}{4} + \frac{x}{9} + \frac{500,000}{3} = \frac{x}{3} + 500,000$$

$$\frac{x}{4} + \frac{x}{9} - \frac{x}{3} = 500,000 - \frac{500,000}{3}$$

(x9x3) (4x3) (4x9)

$$\frac{27x}{108} + \frac{12x}{108} - \frac{36x}{108} = \frac{1500,000}{3} - \frac{500,000}{3}$$

$$\frac{3x}{108} = \frac{10,00,000}{3}$$

$$3x \times 3 = 10,00,000 \times 108$$

$$9x = 10,00,000 \times 108$$

$$x = \frac{10,00,000 \times 108}{9} = 1,20,00,000$$

(WN-10) : Share Capital & Reserves :

Net worth = $\frac{x}{4} = \frac{120,00,000}{4} = 30,00,000$

(1:2)

Share Capital	Reserves & Surplus
10,00,000	20,00,000

(WN-11): Interest: Long term loan × 10%

30,00,000 × 10%

= 300,000

Manan Pvt. Ltd. gives you the following

Question 12. (PP7)

Manan Pvt. Ltd. gives you the following information relating to the year ending 31st March, 2023:

(1)	Current Ratio	2.5 : 1
(2)	Debt-Equity Ratio	1 : 1.5
(3)	Return on Total Assets (After Tax)	15%
(4)	Total Assets Turnover Ratio	2
(5)	Gross Profit Ratio	20%
(6)	Stock Turnover Ratio	7
(7)	Net Working Capital	₹ 13,50,000
(8)	Fixed Assets	₹ 30,00,000
(9)	1,80,000 Equity Shares of	₹ 10 each
(10)	60,000, 9% Preference Shares of	₹ 10 each
(11)	Opening Stock	₹ 11,40,000

You are required to CALCULATE:

(a) Quick Ratio
(b) Fixed Assets Turnover Ratio
(c) Proprietary Ratio
(d) Earnings per Share

Solution:

(WN-1): Current Assets & Liabilities:

Current Asset	2.5	? 2250000
- Current Liabilities	1	? 900,000
Net working capital	1.5	1350,000

(WN-2): Total Assets:

Fixed Assets	30,00,000
Current Assets	2250,000
	5250,000

(WN-3): Profit (PAT):

Total Asset × 15%
= 5250,000 × 15%
= 787500

(WN-4): Sales:

$$\text{Total Asset Turnover Ratio} = \frac{\text{Sales}}{\text{Total Asset}}$$

$$2 = \frac{\text{Sales}}{5250,000}$$

$$\therefore \text{Sales} = 5250,000 \times 2 = 10500,000$$

(WN-5): COGS & Gross Profit:

Sales	100	10500,000
- Gross Profit	20	? 2100,000
COGS	80	? 8400,000

(WN-6): Closing Stock:

a) Average Stock:

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

$$7 = \frac{8400,000}{\text{Average Stock}}$$

$$\therefore \text{Average Stock} = \frac{8400,000}{7} = 1200,000$$

b) Closing Stock:

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

$$1200,000 = \frac{1140,000 + \text{Closing}}{2}$$

$$\therefore \text{Closing Stock} = 1260,000$$

(WN-7): Debt & Equity:

Total Assets	5250,000
- Current Liabilities	900,000
- Preference share capital	600,000
Debt & Equity	3750,000

(1 : 1.5)

Debt	Equity
1500,000	2250,000

2. Quick Ratio:

$$\frac{\text{Current Asset - Stock}}{\text{Current Liabilities}}$$

$$\frac{2250,000 - 1260,000}{900,000}$$

1.1 : 1

.

7. Fixed Asset Turnover Ratio:

$$\frac{\text{Sales}}{\text{Fixed Asset}}$$

$$= \frac{10500,000}{30,00,000}$$

= 3.5 times

3. Proprietary Ratio:

a) Proprietary Funds = Equity 2250,000
Preference share capital 600,000
2850,000

b) Proprietary Ratio = $\frac{\text{Proprietary Funds}}{\text{Total Assets}}$

$$= \frac{2850,000}{5250,000}$$

= 0.54

4. Earning Per share:

PAT	787500
- Preference Dividend (60,000 x 10) x 9%	(54000)
NP For Es	733500
÷ No of Es	÷ 180,000
EPS.	4.075

ABC Company sells plumbing fixtures on terms

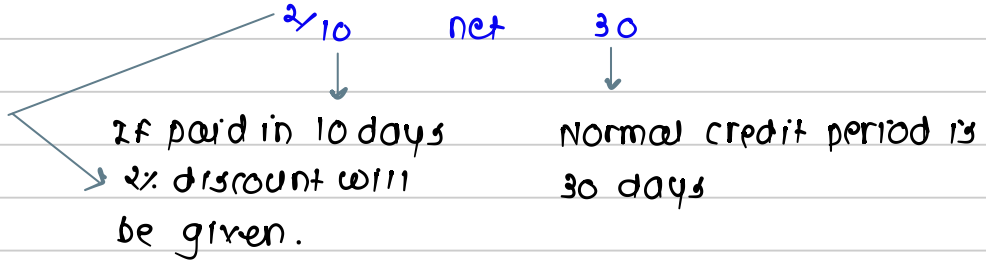
Question 5. (Illustration 5)

ABC Company sells plumbing fixtures on terms of 2/10, net 30. Its financial statements over the last 3 years are as follows:

Particulars	2020-21	2021-22	2022-23
	₹	₹	₹
Cash	30,000	20,000	5,000
Accounts receivable	2,00,000	2,60,000	2,90,000
Inventory	4,00,000	4,80,000	6,00,000
	6,30,000	7,60,000	8,95,000
Net fixed assets	8,00,000	8,00,000	8,00,000
	14,30,000	15,60,000	16,95,000
	₹	₹	₹
Accounts payable	2,30,000	3,00,000	3,80,000
Accruals	2,00,000	2,10,000	2,25,000
Bank loan (short-term)	1,00,000	1,00,000	1,40,000
	5,30,000	6,10,000	7,45,000
Long-term debt	3,00,000	3,00,000	3,00,000
Common stock	1,00,000	1,00,000	1,00,000
Retained earnings	5,00,000	5,50,000	5,50,000
	14,30,000	15,60,000	16,95,000
	₹	₹	₹
Sales	40,00,000	43,00,000	38,00,000
Cost of goods sold	32,00,000	36,00,000	33,00,000
Net profit	3,00,000	2,00,000	1,00,000

Considering opening balance of Accounts Receivable and Inventory as 2,00,000 and 4,00,000 respectively as on 01.04.2020, ANALYSE the company's financial condition and performance over the last 3 years. Are there any problems?

Extra :



CR
QR
{ STR → IHP
DTR → Around }
GP
NP .

	Ratios	2020-21	2021-22	2022-23
१	Current ratio (Current Assets / Current Liabilities)	1.19 (₹ 6,30,000 / ₹5,30,000)	1.25 (₹7,60,000 / ₹6,10,000)	1.20 (₹8,95,000 / ₹7,45,000)
२	Acid-test ratio (Quick Assets / Current Liabilities)	0.43 (₹2,30,000 / ₹5,30,000)	0.46 (₹2,80,000 / ₹6,10,000)	0.40 (₹2,95,000 / ₹7,45,000)
३	Receivables turnover ratio (Sales/ Average Receivables) (Refer Working Notes)	20 (₹40,00,000 / ₹2,00,000)	18.70 (₹43,00,000 / ₹2,30,000)	13.82 (₹38,00,000 / ₹2,75,000)
४	Average collection period (365 / Receivables turnover ratio)	18.25 (365/20)	19.52 (365/18.70)	26.41 (365/13.82)
५	Inventory turnover ratio (COGS / Average Inventory) (Refer Working Notes)	8 (₹ 32,00,000 / ₹ 4,00,000)	8.18 (₹ 36,00,000 / ₹ 4,40,000)	6.11 (₹ 33,00,000 / ₹ 5,40,000)
६	Inventory Holding Period (365 / ratio in Times)	45.63	44.62	59.74
७	Gross profit margin (Gross Profit / Sales) {Gross profit = Sales – Cost of Goods sold}	0.20 (₹8,00,000 / ₹40,00,000)	0.16 (₹7,00,000 / ₹43,00,000)	0.13 (₹5,00,000 / ₹38,00,000)
८	Net profit margin (Net Profit / Sales)	0.075 (₹3,00,000 / ₹40,00,000)	0.047 (₹2,00,000 / ₹43,00,000)	0.026 (₹1,00,000 / ₹38,00,000)
९	Total Asset turnover (Sales / Total Assets)	2.80 (₹40,00,000 / ₹14,30,000)	2.76 (₹43,00,000 / ₹15,60,000)	2.24 (₹38,00,000 / ₹16,95,000)
१०.	Return on assets (Net profit/ Total Assets)	0.21 (₹3,00,000 / ₹14,30,000)	0.13 (₹2,00,000 / ₹15,60,000)	0.06 (₹1,00,000 / ₹16,95,000)

PP 11

	SO	40	30		I	
	P	1	2		1	2
S	30L	30L	30L		–	–
- V						
- F						
- A						
B (5%, 4, 3)	150K	120K	90K	saving	30K	60K
C	30K	60K	95K		(30K)	(65K)
D						
O (10%)	41667	33,333	25000	OC:	8334	16667
NB					8334	11667

OC:

P: 30L × 10% × 50/360 = 41667

PP 12

	1.5 month	30%	40%	60%
S	100,000	100,000	100,000	100,000
- V	80,000	(80,000)	(80,000)	(80,000)
- F				
- A				
B (10%)	(10,000)	x	x	x
C				
D				
P	10,000	20,000 - x		
- Tax 50%	5000			
PAT	5000	10,000 - 0.5x		
- OC (25%)	(2500)	3000	4000	6000
NB	9500	–	–	–

80K × 25% × 1.5/12.

10,000 - 0.5x - 3000 = NIL

7000 = 0.5x

x = 14000.

∴ Bad-deb as % of Sale 14%.

D = 365

PP 13

CT = 71.9 days.

S	(150)	1500,000	(10,000)
V	(145)	(1450,000)	
C	Recum	(5000)	
A			
B	(1%)	(15000)	
C			
D			
PBT			
- Tax			
PAT			
- OC (24%)		(69788)	— (1450K + 5K) × 24% × 71.9/12 .
NB		(38788)	

XX

PP 14

52

		52000		CA	CL
DM	400	208 L		RM: 4	CT: 4
DW	150	78 L			
OH	200	104			
OH	100	52			
TC	850	442 L		WIP 4	
+P	150	78 L		FG 4	
Sale	1000	520 L	←	Debtor 8	

80000 .

Illustration 16 REC MGT

		360		
		30		60
	S	1500,000	+15%	1725000
	V	900,000	+15%	1035000
	F	225000		225000
	A	-		-
	B (1%) (4%)	15000		69000
	C	-		-
	D	-		-
	PBT			
	Tax			
	PAT			
-	OC (12%)	11250		25200
	NB	348750		370800

22050.

15L
↓ 75%
1125000
50% 20%.
9L 225K

X12%.
X CP/360.