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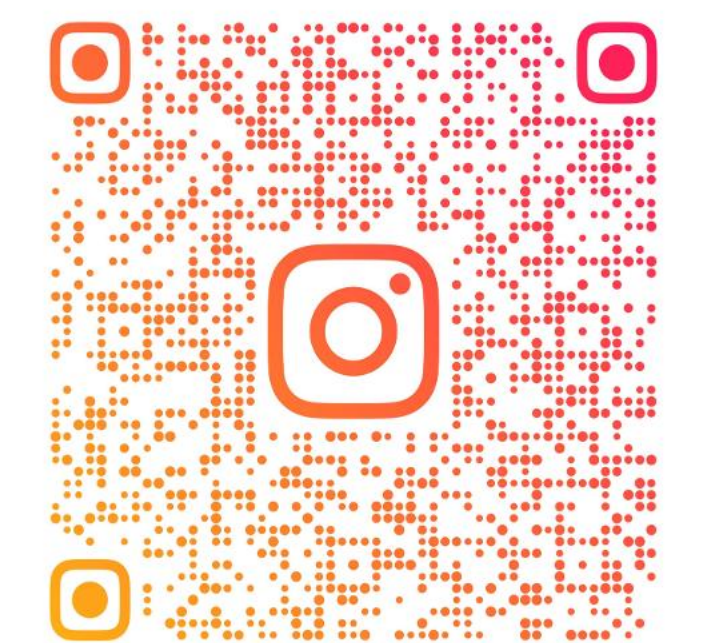


CA ADARSH JOSHI

CA , B.COM

FOUNDER

- 8+ years of teaching experience in CA education
- Subject Expert in:
CA Foundation – Paper 2: Business Laws
CA Intermediate – Paper 2: Corporate and Other Laws
- Has uploaded over 3000+ educational videos for CA Foundation and CA Inter students
- Known for his dynamic, conceptual and “fun-and-learn” teaching style
- Guided thousands of students across India to success in CA exams
- Strong academic background with B.Com (BMCC, Pune) and ACA qualification
- Widely appreciated for his clarity, energy, and practical approach to law subjects
- Through Shikshadwar, offers comprehensive classes, books, tests, and mentorship to CA students



CAADARSHJOSHI



CA DARSHAN JAIN

CA , CS , LLB , DISA , DIRM , B.COM

CO FOUNDER

- Chartered Accountant by profession & educator by passion
- Teaching Financial Accounting , Financial Management & Strategic Management to CA Students For 12 Years.
- Practicing Chartered Accountant For Past 13 years in The Field of Audit , Direct & Indirect Taxes & Management Consultancy
- Elected as Convenor of The Jalna CA CPE Chapter of WIRC of ICAI For 2 consecutive years 20-21 & 21-22.
- He Has Successfully Completed & Qualified Following Certificate Course Conducted By ICAI
 1. Forensic Accounting & Fraud Detection
 2. Concurrent Audit of Banks
 3. Goods & Service Tax (GST)
 4. Public Finance & Accounting
 5. Drafting & Pleading Before Authorities
 6. Wealth management & Financial Planning
 7. Artificial Intelligence

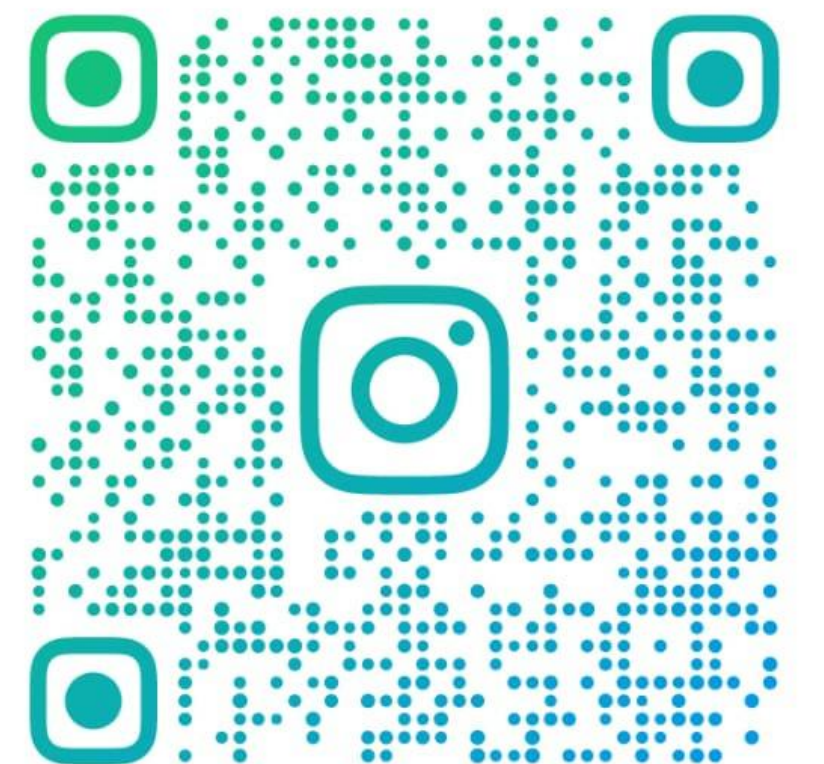


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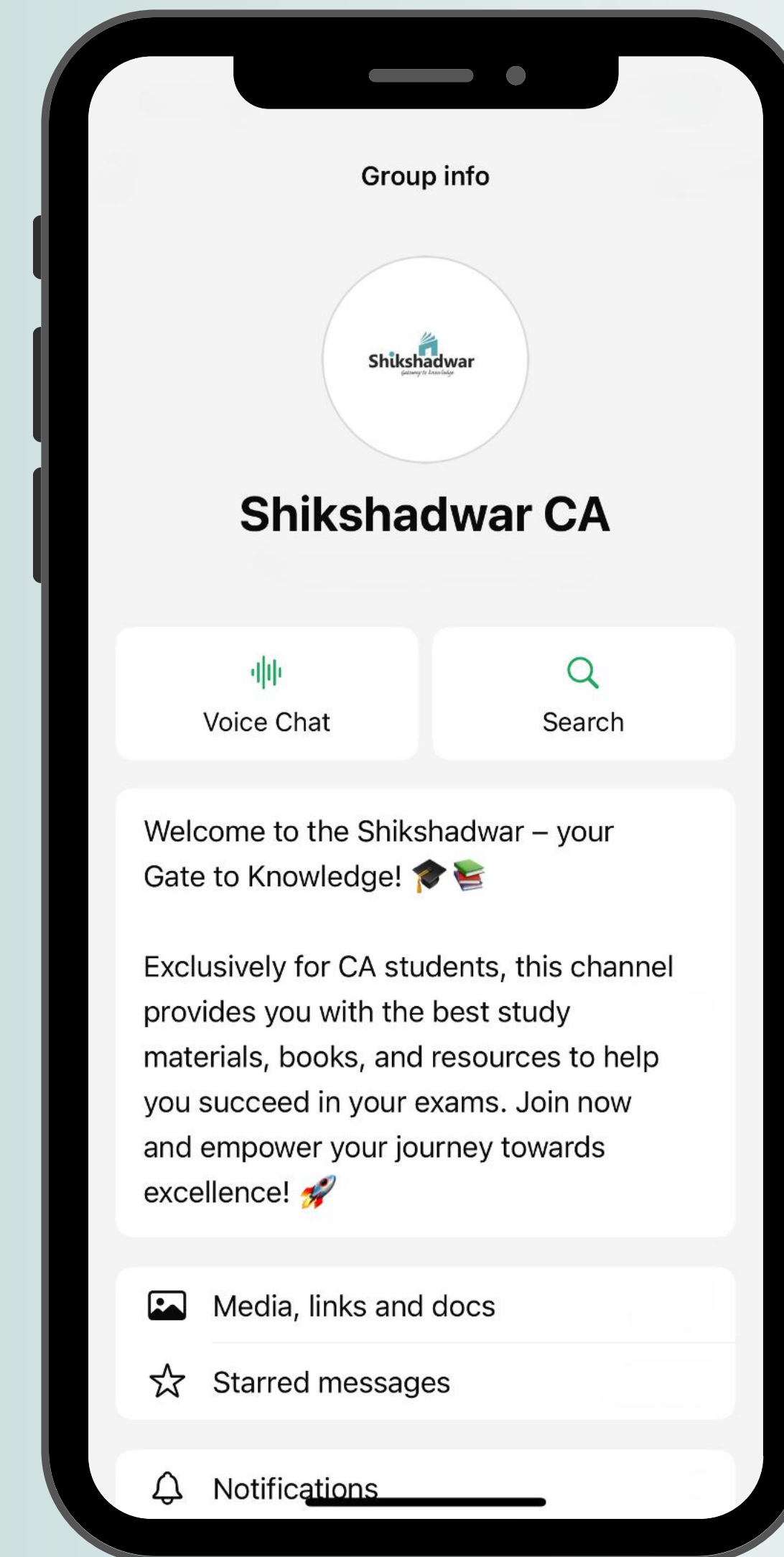
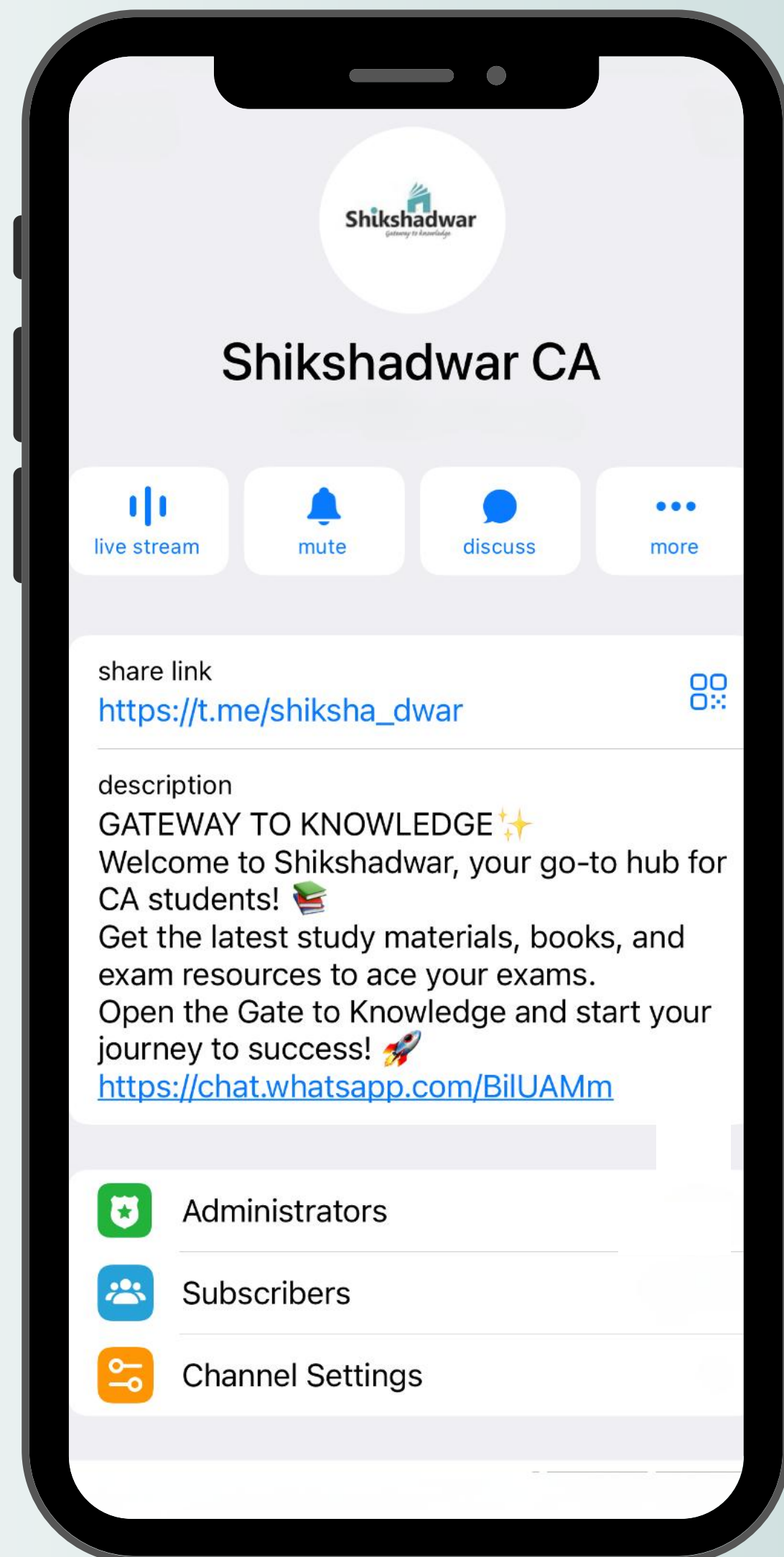
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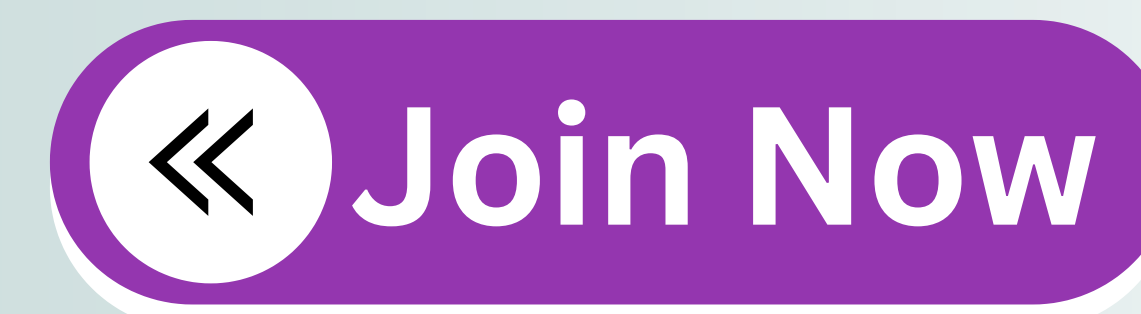
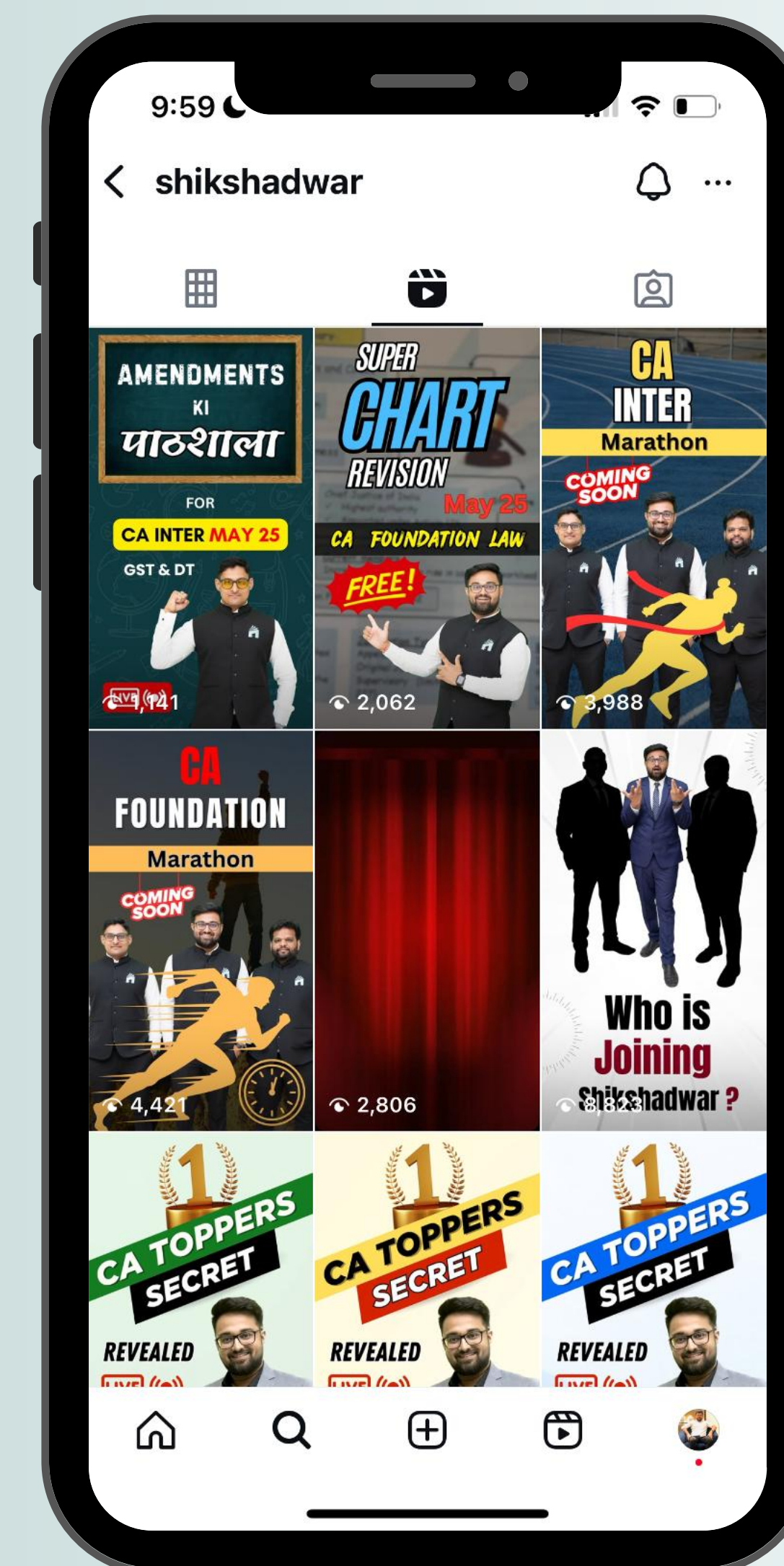
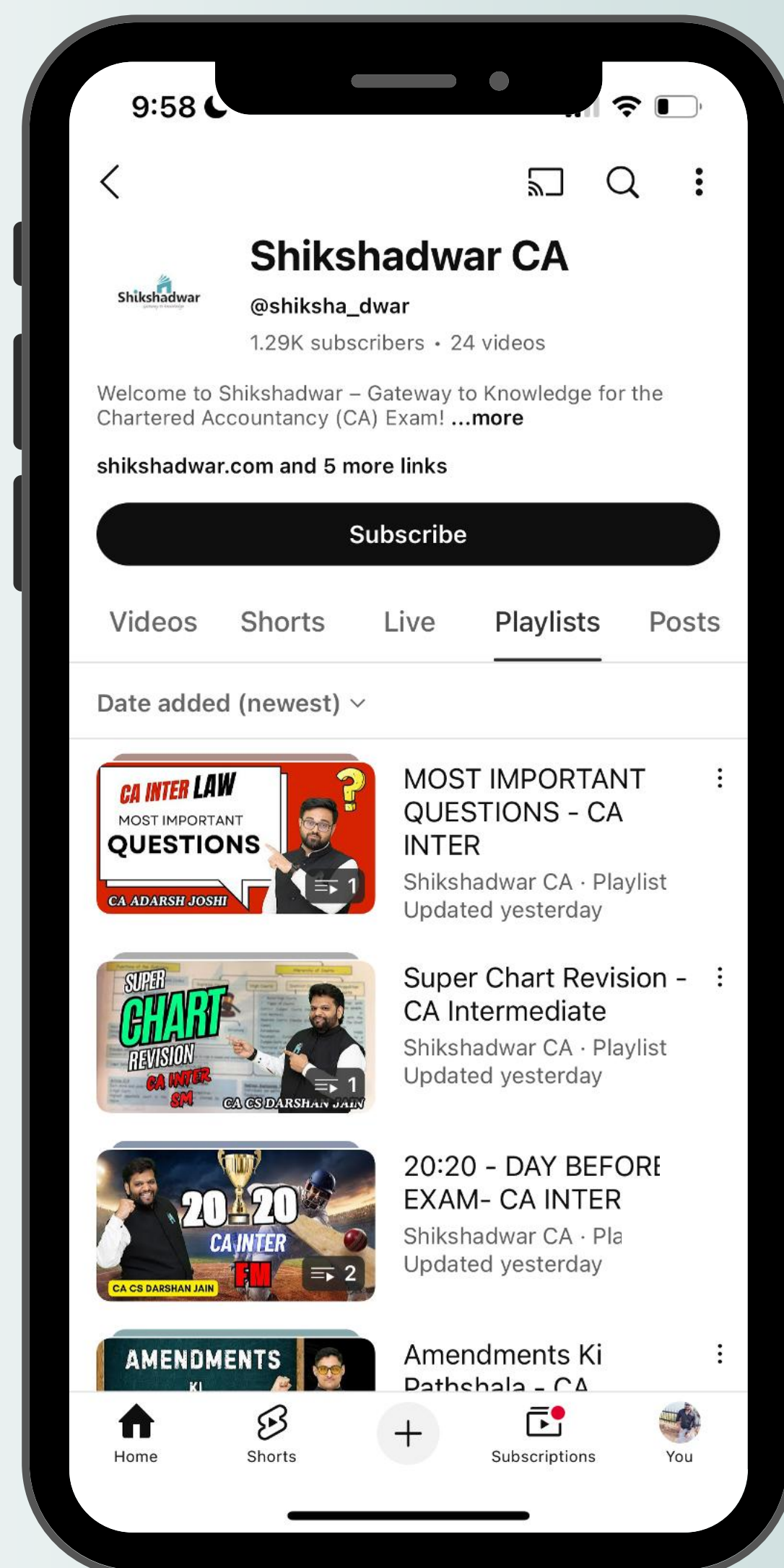
CA , LLB

- A multi-faceted professional with a Chartered Accountancy qualification and a Bachelor's degree in Law.
- Brings 7+ years of teaching experience across CA and CS professional courses.
- Specializes in:
 - Taxation at CA Intermediate and CS Executive levels
 - Economics at CA Foundation level
- Known for simplifying complex concepts with crystal-clear explanations and practical insights.
- Expert in delivering Fasttrack batches with proven accelerated learning techniques.
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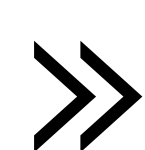
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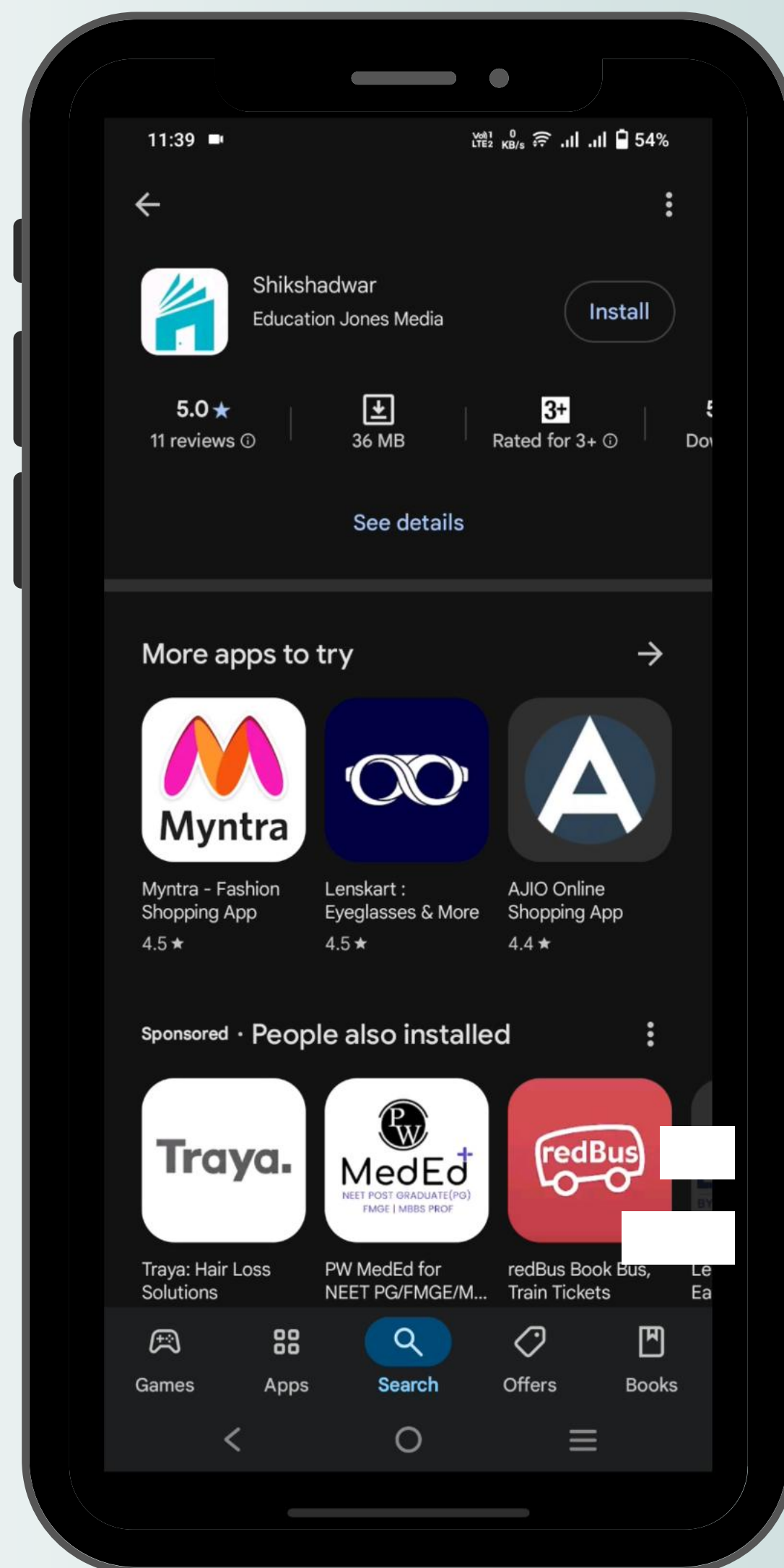
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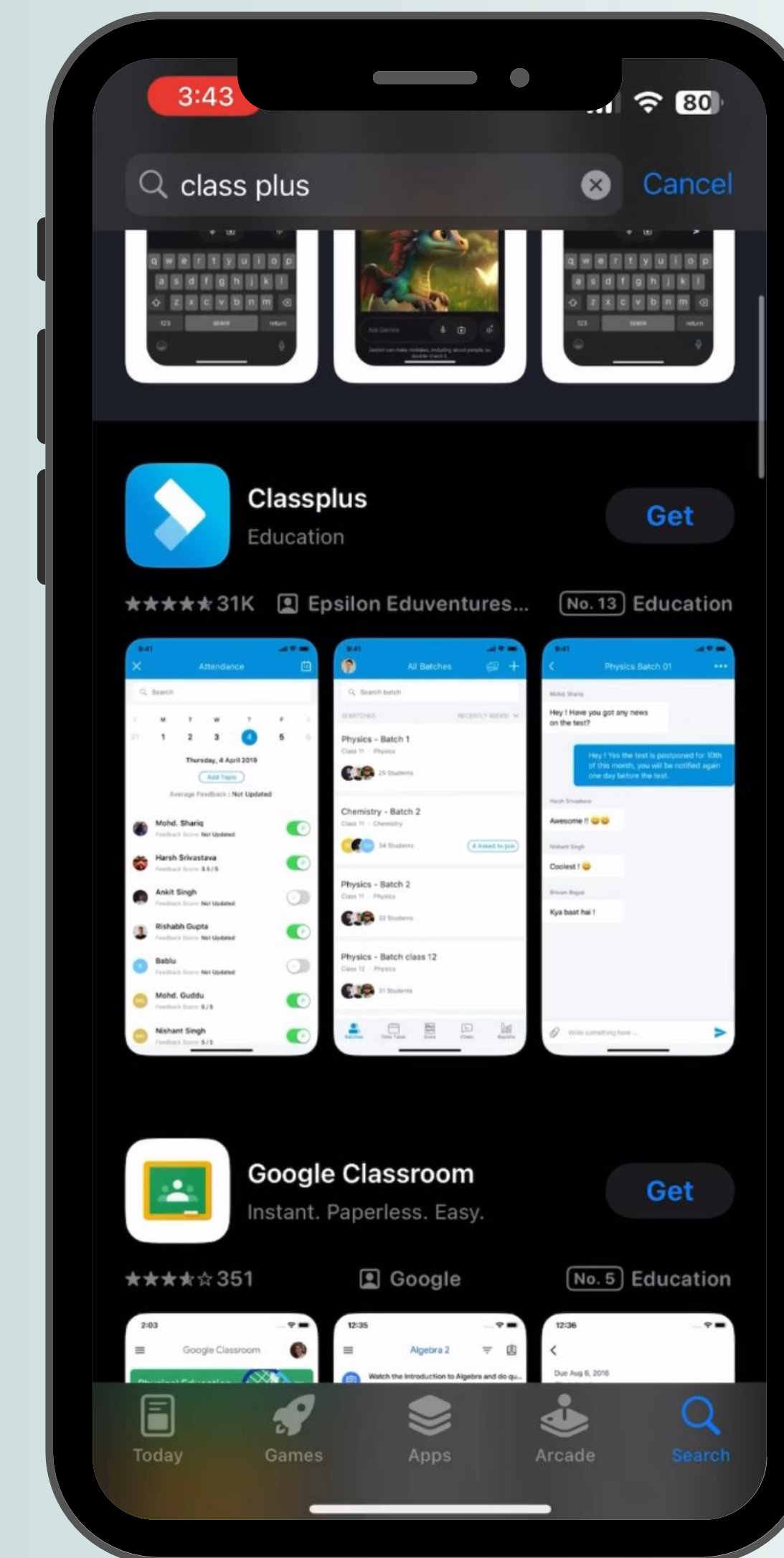
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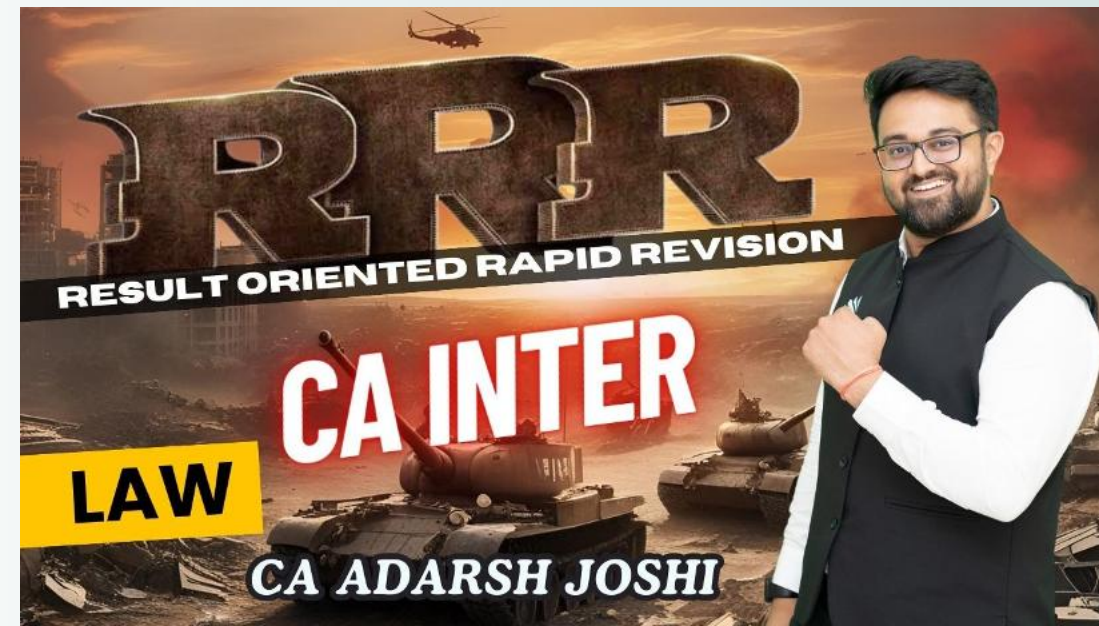
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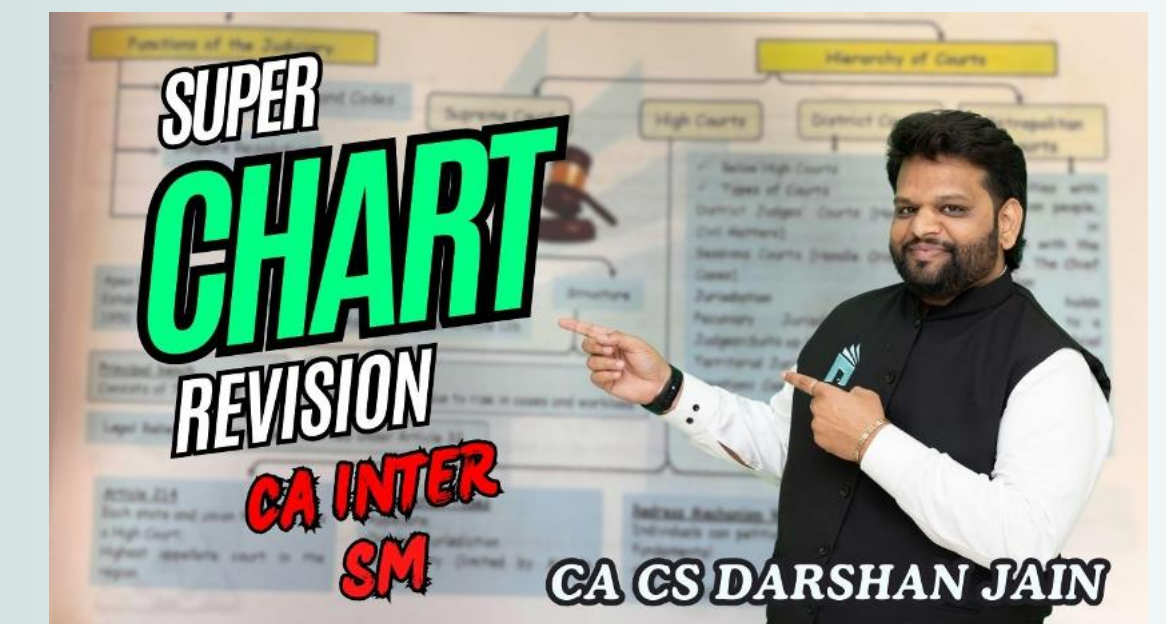
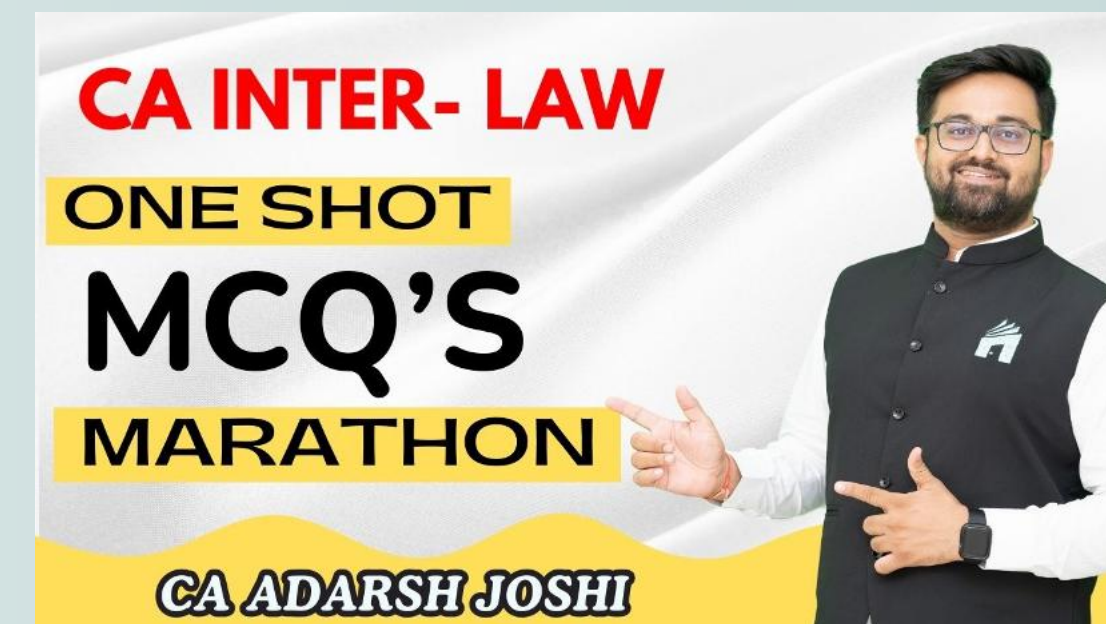
CA INTERMEDIATE MAY 25

Marathons Live Streams



RRR - Result Oriented Rapid Revision

Most Imp Questions



One Shot MCQ's Marathon

Super Chart Revision



Amendments Ki Pathshala

20 -20 Series

CA INTERMEDIATE MAY 25

Marathons Schedule With Links

DATE	TIME	EDUCATOR	SUBJECT	TOPICS	YOUTUBE LINK
17/4/2025	8.00 AM	CA ADARSH JOSHI	LAW	RRR	 WATCH NOW
18/4/2025	12.00 NOON	CA TUSHAR TAPARIA	GST	RRR	 WATCH NOW
19/4/2025	8.00 AM	CA CS DARSHAN JAIN	FM	RRR	 WATCH NOW
20/4/2025	8.00 AM	CA ADARSH JOSHI	LAW	ONE SHOT MCQ MARATHON	 WATCH NOW
21/4/2025	2.00 PM	CA TUSHAR TAPARIA	GST	GST AMENDMENTS & ITS IMPORTANT QUESTIONS	 WATCH NOW
23/4/2025	8.00 AM	CA CS DARSHAN JAIN	FM	ONE SHOT MCQ MARATHON	 WATCH NOW

DATE	TIME	EDUCATOR	SUBJECT	TOPICS	YOUTUBE LINK
24/4/2025	2.00 PM	CA TUSHAR TAPARIA	DT	DT AMENDMENTS & ITS IMPORTANT QUESTIONS	 WATCH NOW
27/4/2025	8.00 AM	CA CS DARSHAN JAIN	SM	ONE SHOT MCQ MARATHON	 WATCH NOW
4/5/2025	8.00 AM	CA ADARSH JOSHI	LAW	MOST IMPORTANT QUESTIONS	 WATCH NOW
6/5/2025	3.00 PM	CA TUSHAR TAPARIA	TAXATION	20-20	 WATCH NOW
12/5/2025	8.00 AM	CA CS DARSHAN JAIN	FM	20-20	 WATCH NOW
13/5/2025	8.00 AM	CA CS DARSHAN JAIN	SM	SUPER CHART REVISION	 WATCH NOW

RATIO ANALYSIS

WEIGHTAGE ANALYSIS

SR.NO	NAME OF TOPIC	May 18	Nov 18	May 19	Nov 19	Nov 20	Jan 21	Jul 21	Dec 21	May 22	Nov 22	May 23	Nov 23
1	MEANING , SCOPE AND OBJECTIVES OF FM	4	2		3	4	4	2	2	2	2		4
2	TYPES OF FINANCING	6	8	6	4	4	2	4	4	2	4	6	8
3	LEVERAGE ANALYSIS	5	10	10	10	12	10	10	10	10	10	7	5
4	COST OF CAPITAL		10	5	14	5	10	10	5	10	11	10	10
5	CAPITAL STRUCTURE	10	5	10		10	10	5	10	10	6	10	10
6	CAPITAL BUDGETING	28	10	15	20	5	12	12	2	14	20	10	10
7	RISK ANALYSIS IN CAPITAL BUDGETING	4	7	6	3	12	5	5	14	5	5	5	5

Sr.No	Name of Topic	May 18	Nov 18	May 19	Nov 19	Nov 20	Jan 21	Jul 21	Dec 21	May 22	Nov 22	May 23	Nov 23
8	ESTIMATION & FINANCING OF WORKING CAPITAL	10		10		10	5			5		4	5
9	MANAGEMENT OF ACCOUNT RECIEVABLES		10					9	5			5	
10	MANAGEMENT OF CASH & MARKETABLE SECURITIES				10		4		5		9		
11	MANAGAMENT OF PAYABLES												
12	MANAGEMENT OF INVENTORY									5			
13	DIVIDEND DECISION		5	5	5	5	5	5	5	4		5	10
14	RATIO ANALYSIS	5	5	5	5	5	5	10	10	5	5	10	5
	TOTAL	72	72	72	74	72	72	72	72	72	72	72	72

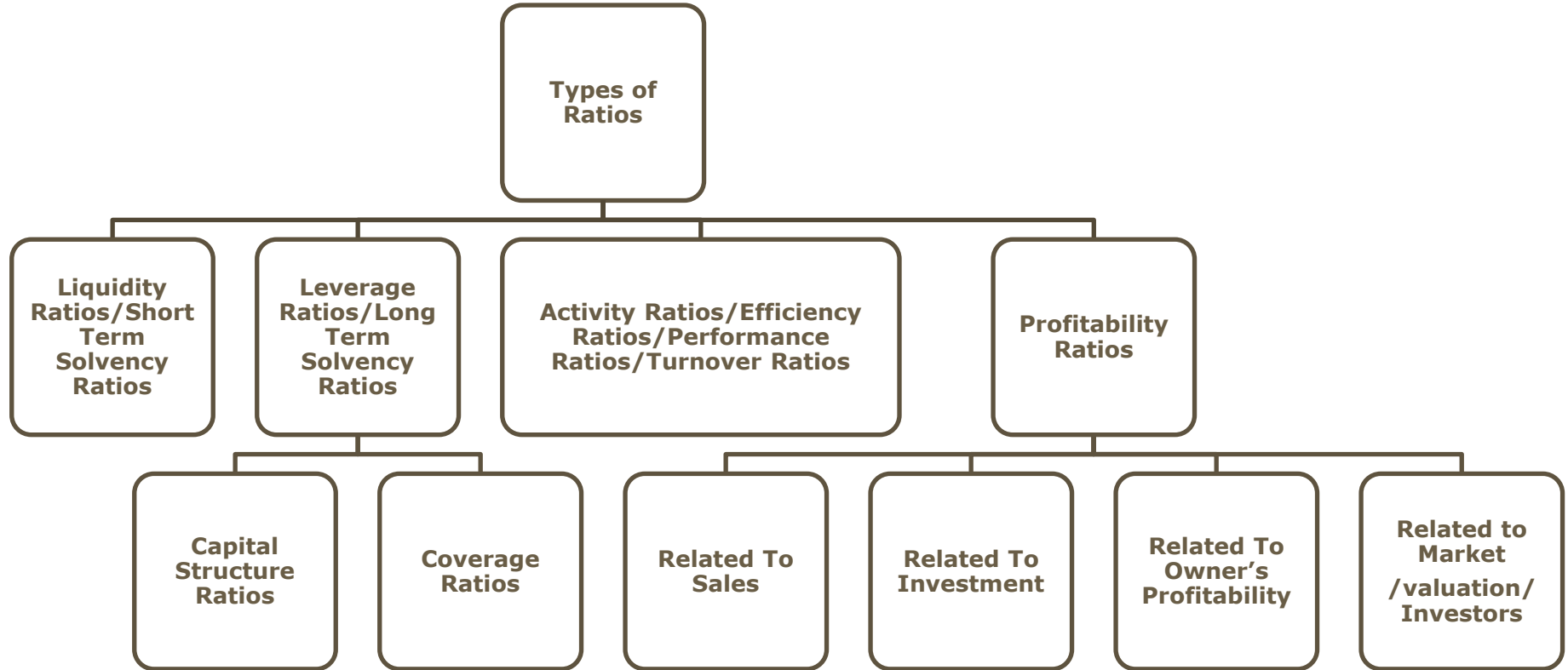
BIRDS EYE VIEW

- ❑ **Introduction.**
- ❑ **Meaning of Ratio and Ratio Analysis.**
- ❑ **Types of Ratios.**
- ❑ **Liquidity Ratios/Short Term Solvency Ratios** – Current Ratio, Quick Ratio or Acid Test Ratio, Cash Ratio or Absolute Liquidity Ratio, Basic Defense Interval or Interval Measure Ratio, Net Working Capital.
- ❑ **Capital Structure Ratios** – Equity Ratio, Debt Ratio, Debt Equity Ratio, Debt to Total Assets Ratio, Capital Gearing Ratio, Proprietary Ratio.
- ❑ **Coverage Ratios** - Debt Service Coverage Ratio, Interest Coverage Ratio, Preference Dividend Coverage Ratio, Equity Dividend Coverage Ratio , Fixed Charges Coverage Ratio.

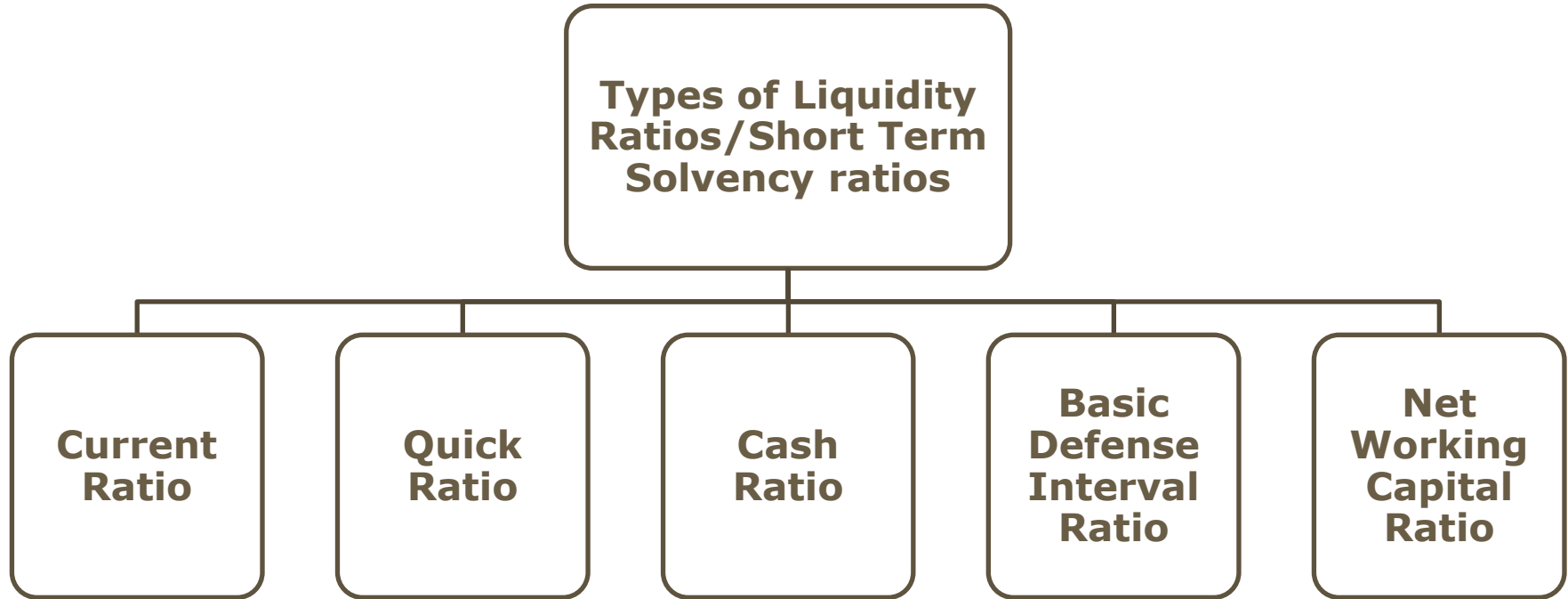
- ❑ **Turnover Ratios/Activity Ratios/Efficiency Ratios/Performance Ratios** – Total Assets Turnover Ratio, Fixed Assets Turnover Ratio, Capital Turnover Ratio or Net Assets Turnover Ratio, Current Assets Turnover Ratio, Working Capital Turnover Ratio , Finished Goods Inventory/Stock Turnover Ratio, Raw Material Inventory/Stock Turnover Ratio , Receivables (Debtor's) Turnover Ratio, Debtors Velocity/Average Collection Period , Payables (Creditor's) Turnover Ratio , Creditors Velocity/Average Payment Period.
- ❑ **Profitability Ratios (Relating To Sales)** - Gross Profit Ratio, Net Profit Ratio, Operating Profit Ratio, COGS Ratio , Operating Expenses Ratio , Operating Ratio , Financial Expenses Ratio.
- ❑ **Profitability Ratios (Relating To Investment)** - Return on Total Assets (ROTA), Return on Net Assets (RONA) , Return on Capital Employed (ROCE), Return on Equity (ROE).
- ❑ **Profitability Ratios (Relating To Owner's Profitability)** - Earnings Per Share (EPS), Dividend Per Share (DPS), Dividend Payout Ratio (DP Ratio).

- ❑ **Profitability Ratios (Relating To Market/Valuation/Investors) - Price Earnings (P/E) Ratio, Dividend & Earning Yield, Market/Book Value Per Share (MV/BV), Q Ratio.**
- ❑ **DU Pont Model**
- ❑ **Importance Of Ratio Analysis**
- ❑ **Limitations of Ratio Analysis**
- ❑ **Summary**
- ❑ **Problems**

TYPES OF RATIOS



TYPES OF LIQUIDITY RATIO



TYPES OF LONG TERM SOLVENCY RATIOS/LEVERAGE RATIOS

Leverage Ratios / Long term
Solvency Ratios

Capital Structure Ratios

- Equity Ratio
- Debt Ratio
- Debt Equity Ratio
- Debt to Total Asset Ratio
- Capital Gearing Ratio
- Proprietary Ratio

Coverage Ratios

- DSCR
- Interest Coverage Ratio
- Preference Dividend Coverage Ratio
- Equity Dividend Coverage Ratio
- Fixed Charges Coverage Ratio

TYPES OF ACTIVITY RATIOS/EFFICIENCY RATIOS/PERFORMANCE RATIOS/TURNOVER RATIOS

Types of Turnover Ratios

```
graph TD; A[Types of Turnover Ratios] --> B[Total Assets Turnover Ratio]; A --> C[Fixed Assets Turnover Ratio]; A --> D[Capital/Net Assets Turnover Ratio]; A --> E[Current Assets Turnover Ratio]; A --> F[Working Capital Turnover Ratio]; A --> G[FG Inventory Turnover Ratio]; A --> H[RM Inventory Turnover Ratio]; A --> I[Debtors Turnover Ratio]; A --> J[Debtors Velocity / ACP]; A --> K[Creditors Turnover Ratio]; A --> L[Creditors Velocity / APP];
```

**Total
Assets
Turnover
Ratio**

**Fixed
Assets
Turnover
Ratio**

**Capital/
Net
Assets
Turnover
Ratio**

**Current
Assets
Turnover
Ratio**

**Working
Capital
Turnover
Ratio**

**FG
Inventory
Turnover
Ratio**

**RM
Inventory
Turnover
Ratio**

**Debtors
Turnover
Ratio**

**Debtors
Velocity
/ACP**

**Creditors
Turnover
Ratio**

**Creditors
Velocity/
APP**

PROFITABILITY 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 maximise the firm's 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:

- i. Profitability ratios related to sales
- ii. Profitability ratios related to Assets/Investment
- iii. Profitability ratios related to Owner's Profitability
- iv. Profitability ratios related to Market/Valuation/Investors.

TYPES OF PROFITABILITY RATIOS RELATED TO SALES

Types of Profitability Ratios Related To Sales

```
graph TD; A[Types of Profitability Ratios Related To Sales] --- B[Gross Profit Ratio]; A --- C[Net Profit Ratio]; A --- D[Operating Profit Ratio]; A --- E[COGS Ratio]; A --- F[Operating Expenses Ratio]; A --- G[Operating Ratio]; A --- H[Financial Expenses Ratio];
```

**Gross
Profit
Ratio**

**Net Profit
Ratio**

**Operating
Profit
Ratio**

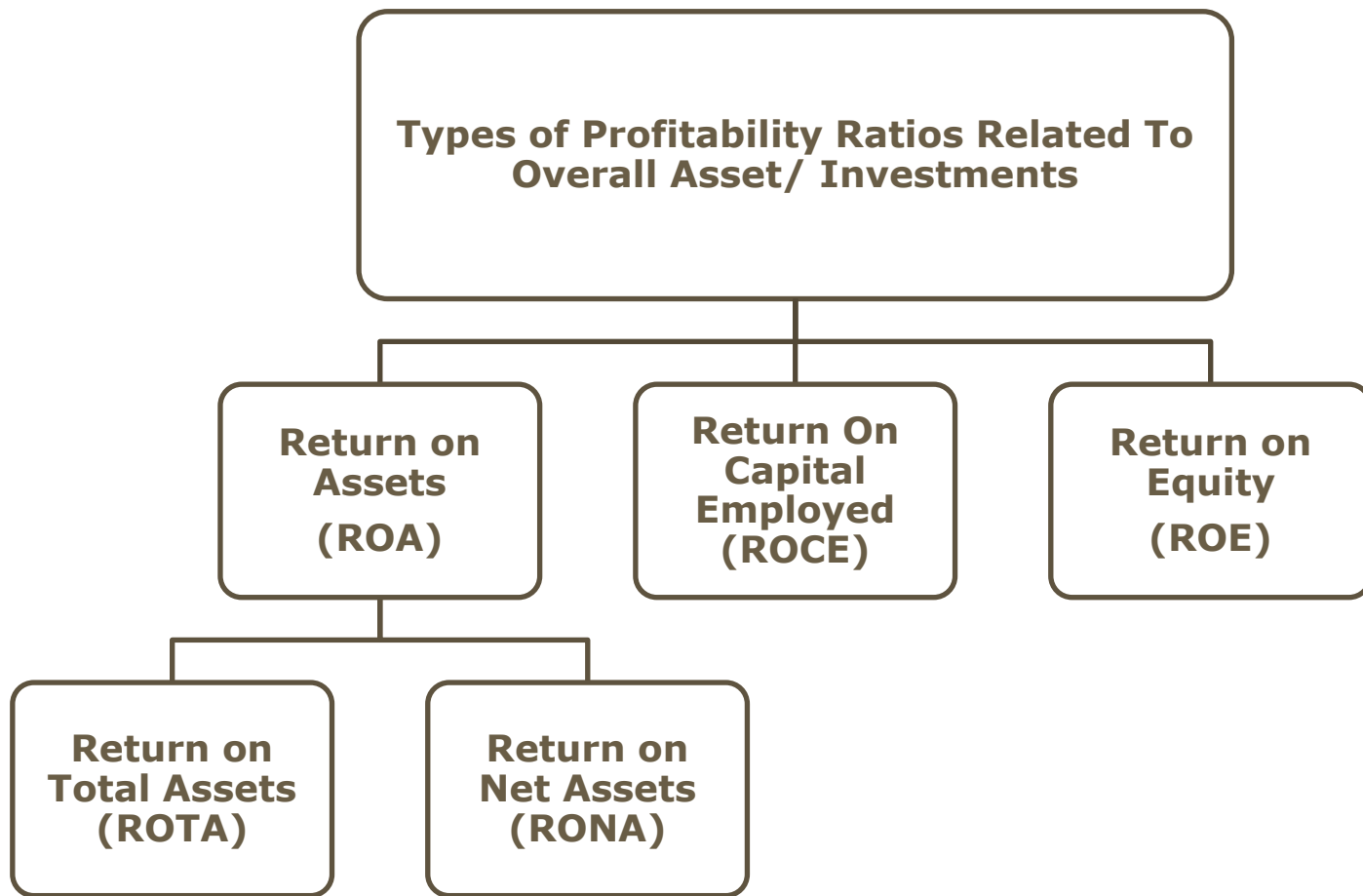
**COGS
Ratio**

**Operating
Expenses
Ratio**

**Operating
Ratio**

**Financial
Expenses
Ratio**

TYPES OF PROFITABILITY RATIOS RELATED TO OVERALL ASSETS/INVESTMENTS



TYPES OF PROFITABILITY RATIOS RELATED TO OWNER'S PROFITABILITY

Types of Profitability Ratios Related To Owner's Profitability

```
graph TD; A[Types of Profitability Ratios Related To Owner's Profitability] --> B[EPS]; A --> C[DPS]; A --> D[Dividend Payout Ratio];
```

EPS

DPS

**Dividend Payout
Ratio**

TYPES OF PROFITABILITY RATIOS RELATED TO MARKET/VALUATION/INVESTOR

Types of Profitability Ratios Related To Owner's Profitability

```
graph TD; A[Types of Profitability Ratios Related To Owner's Profitability] --> B[P/E Ratio]; A --> C[Dividend Yield]; A --> D[Earning Yield]; A --> E[MV/BV of Share]; A --> F[Q Ratio];
```

**P/E
Ratio**

**Dividend
Yield**

**Earning
Yield**

**MV/BV
of Share**

Q Ratio

DU Pont Model

Return on Capital Employed (ROCE) using Dupont Model

Under Dupont Model,

Return on Capital Employed (ROCE) = Net Profit Margin x Capital Turnover, where

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Turnover}} = \frac{\text{EBIT}}{\text{Turnover}}$$

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

Return on Equity (ROE) using Dupont Model

Under Dupont Model,

ROE = Net Profit Margin x Capital Turnover x Equity Multiplier.

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Turnover}}$$

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

$$\text{Equity Multiplier} = \frac{\text{Capital Employed}}{\text{Equity Shareholders Funds}}$$

Note

1. Capital Turnover is also referred here as Assets Turnover,
where $\text{Assets} = \text{Total Funds} = \text{Fixed Assets} + \text{Net Working Capital} = (\text{i.e. Equity} + \text{Debt})$.
2. Equity Multiplier is also referred here as Balance Sheet based Financial Leverage, i.e. percentage of Equity Funds to Total Capital Employed.

SIGNIFICANCE OF DU PONT MODEL

Capital Turnover (i.e. Assets Turnover) Ratio tends to inversely related to the NP Margin. Hence, generally Firms with high Assets T/O may have lower NP Margin. So, Dupont Model analysis helps the User to understand the effects of different combinations (low and high) for these two factors (Assets T/O and NP Margin), and determine which is a more attractive business.

Example

Given the following data (₹ Lakhs): Net Profit = 500, Total Turnover = 5,000, Total Capital Employed (i.e. Total Assets) = 1,000, Equity Shareholders' Funds = 800. The ROE as per Dupont Model would be calculated as under-

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Turnover}} = \frac{500}{5,000} = \mathbf{10\%}$$

$$\text{Asset Turnover or Capital Turnover} = \frac{\text{Turnover}}{\text{Capital Employed}} = \frac{5,000}{1,000} = \mathbf{5 \text{ times.}}$$

$$\text{Equity Multiplier} = \frac{\text{Capital Employed}}{\text{Equity Shareholders Funds}} = \frac{1,000}{800} = \mathbf{1.25 \text{ times.}}$$

Hence,

$$\text{ROE} = \text{Net Profit Margin} \times \text{Asset Turnover} \times \text{Equity Multiplier} = 10\% \times 5.00 \times 1.25 = 0.625 = \mathbf{62.5\%}$$

Analysis and Interpretation

1. A ROE of 62.5% is based on 10% Net Profit, 5 times Asset Turnover and Equity Multiplier of 1.25.
2. If the Equity Multiplier were excluded (to determine how much the Company would earn if it were completely debt-free), the ROE would be $0.10 \times 5.00 = 0.50 = 50\%$.
3. This means that the additional 12.5% to Equity Shareholders is attributed to the Debt used in the business.

SUMMARY

Another way of categorizing the ratios is being shown to you in a tabular form. A summary of the ratios has been tabulated as under:

Ratio	Formulae	Interpretation
<u>Liquidity Ratio</u>		
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.
Quick Ratio	$\frac{\text{Quick assets}}{\text{current liabilities}}$	It measures the ability to meet current debt immediately. Ideal ratio is 1.
Cash ratio	$\frac{(\text{Cash and bank balances} + \text{marketable securities})}{\text{current liabilities}}$	It measures absolute liquidity of the business.

Basic defence interval ratio	$\frac{\text{(Cash and bank balances + net receivables + marketable securities)}}{\text{Daily Operating expenses}}$	It measures the ability of the business to meet regular cash expenditures.
Net working capital	Current assets – current liabilities	It is a measure of cash flow to determine the ability of business to survive financial crises.

Capital structure ratio

Equity ratio	$\frac{\text{Shareholder's equity}}{\text{Net Assets/Capital employed}}$	It indicates owner's fund in companies to total fund invested.
Debt ratio	$\frac{\text{Total debt}}{\text{Net Assets/Capital employed}}$	It is an indicator of use of outside funds.
Debt equity ratio	$\frac{\text{Total debt}}{\text{shareholder's equity}}$	It indicates the composition of capital structure in terms of debt and equity.
Debt to total assets ratio	$\frac{\text{Total debt}}{\text{total assets}}$	It measures how much of total assets is financed by the debt.

Capital gearing ratio	$\frac{(\text{Preference share capital} + \text{debentures} + \text{other borrowed funds})}{(\text{Equity share capital} + \text{reserves and surplus} - \text{losses})}$	It shows the proportion of fixed interest-bearing capital to equity shareholder's 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.

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 obligations. 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 shareholder's dividend. Ideal ratio is > 1.

Equity dividend coverage ratio	$\frac{\text{Earnings Available For Equity Shareholders}}{\text{Equity dividend}}$	It measures the ability to pay the Equity shareholder's dividend.
Fixed charges coverage ratio	$\frac{\text{EBIT} + \text{depreciation}}{\text{interest} + \text{Principle}}$	This ratio shows how many times the cash flow before interest and taxes covers all fixed financing charges. The ideal ratio is > 1 .

Activity ratio/ Efficiency ratio/ Performance ratio/ Turnover ratio

Total asset turnover ratio	$\frac{\text{Sales/COGS}}{\text{Total assets}}$	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	$\frac{\text{Sales/COGS}}{\text{fixed assets}}$	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/Net Assets turnover ratio	$\frac{\text{Sales/COGS}}{\text{Net Assets/Capital Employed}}$	This indicates the firm's ability to generate sales per rupee of long-term investment.
Current Asset turnover ratio	$\frac{\text{Sales / Cost of Goods Sold}}{\text{Current Assets}}$	This indicates the firm's ability to generate sales per rupee of Current Asset.
Working capital turnover ratio	$\frac{\text{Sales/COGS}}{\text{Working capital}}$	It measures the efficiency of the firm to use working capital.
FG Inventory turnover ratio	$\frac{\text{COGS/Sales}}{\text{average inventory of FG}}$	It measures the efficiency of the firm to manage its inventory of FG.

RM Inventory turnover ratio	$\frac{\text{Raw Material Consumed}}{\text{Average Inventory of RM}}$	It measures the efficiency of the firm to manage its inventory of RM.
Receivables (debtor's) Turnover ratio	$\frac{\text{Credit sales}}{\text{average accounts receivables}}$	It measures the efficiency at which firm is managing its receivables.
Debtors velocity/ACP	$\frac{\frac{\text{Average accounts receivables}}{\text{average daily credit sales}}}{\text{Or } \frac{360\text{days}/12\text{months}/52 \text{ weeks}}{\text{DTR}}}$	It measures the velocity of collection of receivables.
Payables (Creditors) turnover ratio	$\frac{\text{Annual net credit purchases}}{\text{average account payables}}$	It measures how fast a company makes payment to its creditors

Creditors velocity/APP	$\frac{\text{Average accounts payable}}{\text{average daily credit purchases}}$ Or $\frac{360 \text{ days}/12\text{months}/52\text{weeks}}{\text{CTR}}$	It measures the velocity of payment of payables.
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Profitability Ratios Related To Sales

Gross profit ratio	$\frac{\text{Gross profit}}{\text{sales}} \times 100$	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	$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Sales}} \times 100$ or $\text{Net Profit Ratio (Post tax)} = \frac{\text{EAT}}{\text{Sales}} \times 100$ or $\text{Net Profit Ratio (Pre tax)} = \frac{\text{EBT}}{\text{Sales}} \times 100$	It measures the relationship between net profit and sales of the business.

Operating profit ratio	Operating Profit Ratio $= \frac{\text{Operating Profit}}{\text{Sales}} \times 100$ Or Operating Profit Ratio $= \frac{\text{EBIT}}{\text{Sales}} \times 100$	It measures operating performance of business.
Cost of goods sold (COGS)	$\frac{\text{COGS}}{\text{Sales}} \times 100$	It measures portion of a particular expenses in comparison to sales.
Operating expenses ratio	$\frac{(\text{Administrative exp.} + \text{selling distribution overhead})}{\text{sales}} \times 100$	
Operating ratio	$\frac{\text{COGS} + \text{Operating expenses}}{\text{sales}}$	
Financial expenses ratio	$\frac{\text{Financial expenses}}{\text{sales}}$	

Profitability ratios related to Overall return on assets/ investments

Return On Total Assets (ROTA)	$\frac{\text{EBIT} (1-t)}{\text{Average Total Assets}}$	It measures net profit per rupee of average total assets
Return On Net Assets (RONA)	$\frac{\text{EBIT} (1-t)}{\text{Average Net Assets}}$	It measures net profit per rupee of average Net assets
ROCE (Pre-Tax)	$\frac{\text{EBIT}}{\text{Capital employed}} * 100$	It measures overall earnings (Pre-tax) on total capital employed.
ROCE (Post-tax)	$\frac{\text{EBIT} (1-T)}{\text{Capital employed}} * 100$	It measures overall earnings (Post-tax) on total capital employed.

Return on equity
(ROE)

$$\frac{(\text{Net profit after taxes} - \text{preference dividend (if any)})}{\text{net worth or equity shareholder's fund}} * 100$$

This ratio indicates Return earned by equity Shareholder

Profitability ratios related to owner's Profitability

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 Ratio)	$\frac{\text{Dividend per equity share}}{\text{earning per share (EPS)}}$	It shows % of EPS paid as dividend and retained earnings.

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	$\frac{\text{Dividend +or– change in share price}}{\text{initial share price}} \times 100$ Or $\frac{\text{Dividend per share (DPS)}}{\text{market price per share (MPS)}} \times 100$	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 shareholder's 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.

Ratios shall be calculated based on requirement and availability of information and may deviate from original formulae. If required, assumptions should be given.

Students may note that now a company is also required to disclose the following ratios in the notes to accounts while preparing Financial Statements:

- (a) Current Ratio,
- (b) Debt-Equity Ratio,
- (c) Debt Service Coverage Ratio,
- (d) Return on Equity Ratio,
- (e) Inventory turnover ratio,
- (f) Trade Receivables turnover ratio,
- (g) Trade payables turnover ratio,
- (h) Net capital turnover ratio,
- (i) Net profit ratio,
- (j) Return on Capital employed,
- (k) Return on investment.

ILLUSTRATION 1

Following information has been provided from the books of Laxmi Pvt. Ltd. for the year ending on 31st March, 2021:

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 31st March, 2021 assuming that there is no long term debt.

Balance Sheet

LIABILITIES	AMOUNT	ASSETS	AMOUNT
Shareholders Assets 160000		Fixed Assets	1440000
Equity Share Capital			
Reserves & Surplus <u>32000</u>	1920000		
<u>Current Liabilities</u>		<u>Current Assets</u>	
Bank o/d 80000		Inventory 320000	
Other CL 240000	320000	Other CA <u>480000</u>	800000
	<u>2240000</u>		<u>2240000</u>

Working :

$$1) \text{ Working Capital} = 480000$$

$$\therefore \text{WNC} = \text{CA} - \text{CL}$$

$$480000 = \text{CA} - \text{CL}$$

The Current ratio of 2.5 indicates 2.5 of CA for Rs. 1 CL

$\therefore$ let the CL be x

$$\text{WNC} = 2.5x - x$$

$$480000 = 1.5x$$

$$\therefore \text{CL} = \frac{480000}{1.5} = 320000, \quad \text{CA} = 320000 \times 2.5 = 800000$$

2]

$$\text{liquid ratio} = \frac{CA - \text{Inventory}}{CL}$$

$$1.5 = \frac{800000 - \text{Inventory}}{320000}$$

$$480000 = 800000 - \text{Inventory}$$

$$\therefore \text{Inventory} = 320000$$

3] Fixed Asset Proprietary ratio :

$$0.75 = \frac{\text{Fixed Assets}}{\text{Proprietary fund}}$$

$$\therefore \underline{\text{Fixed Assets}} = 0.75 \underline{\underline{\text{Proprietary fund}}}$$

4)

$$\text{Total Liabilities} = \text{Total Assets}$$

$$\text{Proprietor's funds} + \text{Current Liabilities} = \text{Fixed Assets} + \text{Current Assets}$$

Let the Prop. fund be x

$$x + 320000 = 0.75x + 800000$$

$$0.25x = 480000$$

$$\therefore x = 1920000$$

$$\therefore \text{Proprietor's funds} = 1920000$$

S] Proprietary funds = Equity share Capital
+ Reserves & surplus.

$$1920000 = \text{Equity share Capital} \\ + 320000$$

$$\therefore \text{Equity share Capital} = 1920000 - 320000 \\ = 1600000$$

ILLUSTRATION 2

Manan Pvt. Ltd. gives you the following information relating to the year ending 31st March, 2021:

(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	$CA - Inventory / CL$	1.1 times
(b)	Fixed Assets Turnover Ratio	$Turnover / FA$	3.5 times
(c)	Proprietary Ratio	$Prop\ funds / Total Assets$	0.54 times
(d)	Earnings per Share	$EATs / No. of Eq. shares$	4.08 per share.

]

quick ratio

$$\text{quick ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

$$= \frac{2250000 - 1260000}{900000}$$

$$= 1.1 \text{ times}$$

2] Fixed Asset Turnover Ratio.

Fixed Asset Turnover ratio $=$ Turnover
Fixed Assets.

$$= \frac{10500000}{3000000}$$

$$= 3.5 \text{ times}$$

3] Proprietary Ratio.

$$\text{Proprietary Ratio} = \frac{\text{Prop. fund}}{\text{Total Assets}}$$

$$= \frac{\text{Equity + Pref. shares}}{\text{₹ 250 m}}$$

$$= \frac{2250 \text{ m} + 600 \text{ m}}{\text{₹ 250 m}}$$

$$= 0.54 \text{ times}$$

4] Earning Per Share

$$\text{EPS} = \frac{\text{Earnings available for Equity Shareholders}}{\text{NO. of Equity Shares.}}$$

$$\begin{array}{r} \text{PAT - PD} \\ 180000 \\ 787500 - 54000 \\ \hline 180000 \end{array}$$

$$= 4.08 \text{ per share.}$$

Working

1]

$$WCL = CA - CL$$

as current ratio is 2.5

let CL be x & CA be $2.5x$.

$$135000 = 2.5x - x$$

$$135000 = 1.5x$$

$$\therefore x = 90000$$

$$\therefore CL = 90000 \quad CA = 225000$$

$$3] \quad \text{Total Assets} = \text{Fixed Assets} + \text{Current Assets.}$$

$$= 3000000 + 225000$$

$$= 3250000$$

$$3] \quad \text{PAT} = \text{Total Assets} \times 15\%$$

$$= 3250000 \times 15\%$$

$$= 487500$$

4]

$$\frac{\text{Total Assets}}{\text{Turnover ratio}} = \frac{\text{Turnover}}{\text{Total Assets}}$$

$$2 = \frac{\text{Turnover}}{5250000}$$

$$\therefore \text{Turnover} = 10500000$$

5]

$$\begin{aligned} \text{COGS} &= \text{Sales} - \text{GP margin} \\ &= 10500000 - 20\% \\ &= 8400000 \end{aligned}$$

$$6] \text{ Stock Turnover ratio} = \frac{\text{COGS}}{\text{Average Inventory}}$$

$$7] = \frac{8400000}{\text{Average Inventory}}$$

$$\therefore \text{Average Inventory} = 1200000$$

$$\therefore \text{Average Inventory} = \frac{\text{O.P. Stock} + \text{C.P. Stock}}{2}$$

$$1200000 = \frac{1140000 + x}{2}$$

$$2400000 = 1140000 + x$$

$$\therefore x = \text{Closing stock} = 1260000$$

7] Total Liabilities = Total Assets.

$$\begin{aligned} \text{Equity} + \text{Debt} + \text{CL} &= \$250000 \\ + \text{Pref share Capital} \end{aligned}$$

Let the Debt be x

$$1.5x + x + 900000 + 600000 = \$250000$$

$$2.5x + 1500000 = 5250000$$

$$\therefore 2.5x = 3750000$$

$$x = 3750000 / 2.5$$

$$= 1500000$$

$$\therefore \text{Debt} = 1500000$$

$$\text{Equity} = 2250000$$

$$8] \text{ Equity} = \text{Share Capital} + \text{Reserves \& Surplus}$$

$$225000 = 180000 + \text{R \& S}$$

$$225000 = 180000 + \text{Reserves \& Surplus}$$

$$\therefore \text{Reserves \& Surplus} = 45000$$

ILLUSTRATION 3

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

$$DTR = \frac{\text{Sales}}{\text{Avg receivables}}$$

$$4 = \frac{1600000}{\text{Avg receivables}}$$

$$\therefore \text{Avg receivable} = 40000$$

$$\text{Avg receivable} = \text{Debtors} + BIR$$

$$40000 = x + 25000$$

$$\therefore \text{Drs} = 375000$$

$$STR = \frac{\text{COGS}}{\text{Avg. Inventory}}$$

$$1.5 = \frac{1200000}{\text{Avg. Inv}}$$

$$\therefore \text{Avg. Inv} = 800000$$

$$\therefore \text{Avg. Inventory} = \frac{\text{Op. Stock} + \text{Cl. Stock}}{2}$$

$$800000 = \frac{x + x + 1000000}{2}$$

$$1600 \text{ m} = 2x + 10 \text{ m}$$

$$2x = 1600 \text{ m} - 10 \text{ m}$$

$$2x = 1590 \text{ m}$$

$$x = 795 \text{ m}$$

$$\text{Opening stock} = 795 \text{ m}$$

$$\begin{aligned} \text{Closing stock} &= 795 \text{ m} + 10 \text{ m} \\ &= 805 \text{ m} \end{aligned}$$

$$CTIR = \frac{\text{Purchase}}{\text{Avg Payables}}$$

$$6 = \frac{1210000}{\text{Avg Payables}}$$

$$\text{Avg Payables} = 201667$$

$$\text{Avg Payables} = \text{Creditors} + \text{B/P}$$

$$201667 = x + 10000$$

$$\therefore \text{Creditors} = x = 191667$$

$$\text{COGS} = \text{OP Stock} + \text{Pur} - \text{cl Stock}$$

$$120000 = 79500 + x - 80500$$

$$120000 - 79500 + 80500 = x$$

$$\therefore x = 121000 \text{ (Pur)}$$

ILLUSTRATION 4

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

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

Trading Account

PARTICULARS	AMOUNT	PARTICULARS	AMOUNT
To Opening stock	80000	By Sales (640000/20%)	3200000
To Purchases (BF)	2720000	By Closing Stock	400000
To Gross Profit	800000		
(25% of 3200000)			
	3600000		3600000

Profit & Loss Account

PARTICULARS	AMOUNT	PARTICULARS	AMOUNT
To Operating Expenses (BF)	160000	By Gross Profit	800000
To Net profit	640000		
	800000		800000

Balance Sheet			
LIABILITIES	AMOUNT	ASSETS	AMOUNT
Capital	3200000	Fixed Assets	4000000
Outside Liabilities	6400000	Closing Stock	400000
		Other Current Assets	5200000
	9600000		9600000

Working

$$\text{Stock Turnover ratio} = \frac{\text{Sales - CP}}{\text{Avg stock}}$$

$$10 = \frac{3200000 - 25\%}{\text{Avg stock}}$$

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

$$\therefore \text{Avg stock} = 240000$$

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

$$240000 = \frac{\text{Opening Stock} + 400000}{2}$$

$$480000 = \text{Opening Stock} + 400000$$

$$\therefore \text{Opening Stock} = 80000$$

ILLUSTRATION 5

The following accounting information and financial ratios of PQR Ltd. relates to the year ended 31st March, 2021:

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, 2020 amounted to ₹ 26 lakhs, PREPARE a summarised Profit and Loss Account of the company for the year ended 31st March, 2021 and also the Balance Sheet as on 31st March, 2021.

Profit & Loss Account

PARTICULARS	AMOUNT	PARTICULARS	AMOUNT
TO Raw material Consumed (25% of 6630000)	1326000	By Sales	7800000
TO Direct wages (10% of 6630000)	663000		
TO Other works cost (B/F)	4641000		
TO GP (7800000 x 15%)	1170000		
	7800000		7800000

PARTICULARS	AMOUNT	PARTICULARS	AMOUNT
To administrative of selling overheads (BF)	\$46000	By CIP	1170000
To Net Profit (7800000 x 8%)	\$24000		
	<u>1170000</u>		<u>1170000</u>

Balance Sheet

LIABILITIES	AMOUNT	ASSETS	AMOUNT
Shareholders Funds		Fixed Assets	2600000
Share Capital 200000			
Reserves & surplus 1200000	1500000		
Long term loans	2200000		

LIABILITIES	AMOUNT	ASSETS	AMOUNT
Current Liabilities	1100000	Current Assets	
		Stock of RM 331500	
		Stock of FG 397800	
		Debtors 1282192	
		Cash (BP) 188508	
			→ 2200000
	4800000		4800000

1)

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

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

$$\therefore \text{Sales} = 7800 \text{ 000}$$

2)

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

$$\frac{2600000}{\text{Current used}} = \frac{13}{11}$$

$$\therefore \text{Current} = \frac{2600000 \times 11}{13}$$

$$= 2200000$$

$$\begin{aligned}
 3) \quad \text{Current ratio} &= \frac{C1A}{C2} \\
 2 &= \frac{220000}{C2} \\
 \therefore C2 &= 110000
 \end{aligned}$$

$$\begin{aligned}
 4) \quad \frac{\text{long term loans}}{\text{current liabilities}} &= \frac{2}{1} \\
 \frac{\text{long term loans}}{110000} &= \frac{2}{1}
 \end{aligned}$$

$$\therefore \text{long term works} = 2200000$$

$$\begin{aligned} \text{[S]} \quad \text{works cost} &= \text{Sales} - \text{GP} \\ &= 7800000 - 15\% \\ &= 6630000 \end{aligned}$$

$$\begin{aligned}
 6] \text{ Stock of Raw material} &= \frac{\text{RM Consumed} \times 3}{12} \\
 &= \frac{1326000 \times 3}{12} \\
 &= 331500
 \end{aligned}$$

$$\begin{aligned}
 7] \text{ Debtors} &= \frac{7800000 \times 60}{365} \\
 &= 1282192
 \end{aligned}$$

ILLUSTRATION 6

Ganpati Limited has furnished the following ratios and information relating to the year ended 31st March, 2021:

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:

- CALCULATE the operating expenses for the year ended 31st March, 2021.
- PREPARE a Balance Sheet as on 31st March in the following format:

Balance Sheet as on 31st March, 2021

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

Balance Sheet as on 31st March, 2021

Liabilities	₹	Assets	₹
Share Capital ^(150000/10x3)	150000	Fixed Assets	170000
Reserve and Surplus ^(150000/10x3)	45000	Current Assets	
15% Debentures	400000	Stock	150000
Payables	200000	Receivables	200000
		Cash ^(BF)	50000
	2100000		2100000

Statement Showing Net profit

SR.NO	PARTICULARS	AMOUNT
A	Sales	6000000
B	less - Cost	1800000
C	Gross Profit	4200000
D	less - Operating Expenses (BF)	3390000
E	Operating Profit (EBIT)	810000
F	less - Interest	60000
G	Profit Before Tax	750000

[illegible]

Working

I] Return on Network = 25%

Return on Network = $\frac{\text{PAT}}{\text{Network}}$

0.25 = $\frac{375000}{\text{Network}}$

$\therefore$ Network = 1500000

$$2] \text{ Inventory Turnover Ratio} = \frac{\text{COGS}}{\text{Avg Inventory}}$$

$$12 = \frac{1800 \text{ m}}{\text{Avg Inventory}}$$

$$\therefore \text{Avg Inventory} = \text{Stock} = \frac{1800 \text{ m}}{12} = 150 \text{ m}$$

ILLUSTRATION 7 (PYP MAY 2018) 5 MARKS

The accountant of Moon Ltd. has reported the following data:

<i>Gross profit</i>	<i>₹ 60,000</i>
<i>Gross Profit Margin</i>	<i>20 per cent</i>
<i>Total Assets Turnover</i>	<i>0.30:1</i>
<i>Net Worth to Total Assets</i>	<i>0.90:1</i>
<i>Current Ratio</i>	<i>1.5:1</i>
<i>Liquid Assets to Current Liability</i>	<i>1:1</i>
<i>Credit Sales to Total Sales</i>	<i>0.80:1</i>
<i>Average Collection Period</i>	<i>60 days</i>

Assume 360 days in a year

You are required to complete the following:

Balance Sheet of Moon Ltd.

Liabilities	₹	Assets	₹
Net Worth	900000	Fixed Assets (Bt)	850000
Current Liabilities	100000	Stock	50000
		Debtors	40000
		Cash (Bt)	<u>60000</u>
Total Liabilities	1000000	Total Assets	150000
			1000000

SOLUTION

Preparation of Balance Sheet

Working Notes:

Sales = Gross Profit / Gross Profit Margin

$$= 60,000 / 0.2 = ₹ 3,00,000$$

Total Assets = Sales / Total Asset Turnover

$$= 3,00,000 / 0.3 = ₹ 10,00,000$$

Net Worth = 0.9 X Total Assets

$$= 0.9 \times ₹ 10,00,000 = ₹ 9,00,000$$

Current Liability = Total Assets – Net Worth

$$= ₹ 10,00,000 - ₹ 9,00,000$$

$$= ₹ 1,00,000$$

$$\begin{aligned}\text{Current Assets} &= 1.5 \times \text{Current Liability} \\ &= 1.5 \times ₹ 1,00,000 = ₹ 1,50,000\end{aligned}$$

$$\begin{aligned}\text{Stock} &= \text{Current Assets} - \text{Liquid Assets} \\ &= \text{Current Assets} - (\text{Liquid Assets} / \text{Current Liabilities} = 1) \\ &= 1,50,000 - (\text{LA} / 1,00,000 = 1) = ₹ 50,000\end{aligned}$$

$$\begin{aligned}\text{Debtors} &= \text{Average Collection Period} \times \text{Credit Sales} / 360 \\ &= 60 \times 0.8 \times 3,00,000 / 360 = ₹ 40,000\end{aligned}$$

$$\begin{aligned}\text{Cash} &= \text{Current Assets} - \text{Debtors} - \text{Stock} \\ &= ₹ 1,50,000 - ₹ 40,000 - ₹ 50,000 \\ &= ₹ 60,000\end{aligned}$$

$$\begin{aligned}\text{Fixed Assets} &= \text{Total Assets} - \text{Current Assets} \\ &= ₹ 10,00,000 - ₹ 1,50,000 \\ &= ₹ 8,50,000\end{aligned}$$

Balance Sheet

Liabilities	₹	Assets	₹
Net Worth	9,00,000	Fixed Assets	8,50,000
Current Liabilities	1,00,000	Stock	50,000
		Debtors	40,000
		Cash	60,000
Total liabilities	10,00,000	Total Assets	10,00,000

ILLUSTRATION 8 (PYP DEC 2021) 10 MARKS

From the following data in respect of ABC industries for the year ended 31st march 2021 :

Debt to the total asset ratio	0.40
Long term debt to equity ratio	30%
Gross profit margin on sales	20%
Accounts receivables period	36 days
Quick ratio	0.9
Inventory holding period	55 days
Cost of goods sold	Rs. 64,00,000

$$\text{Costs} = \text{Sales} - \text{GP}$$

$$640000 = x - 0.20x$$

$$640000 = 0.80x$$

$$\therefore x = 800000$$

$$\begin{aligned}\text{Sales} &= \text{Costs} + \text{GP} \\ &= 640000 + 1/4 \text{ of } 640000 \\ &= 640000 + 160000 \\ &= 800000\end{aligned}$$

Liabilities	Amount	Assets	Amount
Equity Share Capital	Rs. 20,00,000	Fixed assets (BF)	3632222
Reserves and Surplus (BF)	1000000	Inventories	977778
Long term debts } 900000		Accounts receivable	800000
Accounts payable } 1100000	2000000	Cash	190000
Total	Rs. 50,00,000	Total	50,00,000

Required :

Complete the balance Sheet of ABC Industries as on 31st March, 2021.
All calculation should be in nearest Rupee. Assume 360 days in a year.

SOLUTION

Working Notes:

(1) Total liability = Total Assets = ₹ 50,00,000

Debt to Total Asset Ratio = 0.40

$$\frac{\text{Debt}}{\text{Total Assets}} = 0.40$$

Or, $\frac{\text{Debt}}{50,00,000} = 0.40$

So, **Debt** = **20,00,000**

(2) Total Liabilities = ₹ 50,00,000

Equity share Capital + Reserves + Debt = ₹ 50,00,000

So, Reserves = ₹ 50,00,000 - ₹ 20,00,000 - ₹ 20,00,000

So, Reserves & Surplus = ₹ 10,00,000

$$(3) \frac{\text{Long term Debt}}{\text{Equity Shareholders' Fund}} = 30\%^*$$

$$\frac{\text{Long term Debt}}{(20,00,000 + 10,00,000)} = 30\%$$

$$\text{Long Term Debt} = ₹ 9,00,000$$

$$(4) \text{ So, Accounts Payable} = ₹ 20,00,000 - ₹ 9,00,000$$

$$\text{Accounts Payable} = ₹ 11,00,000$$

$$(5) \text{ Gross Profit to sales} = 20\%$$

$$\text{Cost of Goods Sold} = 80\% \text{ of Sales} = ₹ 64,00,000$$

$$\text{Sales} = \frac{100}{80} \times 64,00,000 = 80,00,000$$

$$(6) \text{ Inventory Turnover} = \frac{360}{55}$$

$$\frac{\text{COGS}}{\text{Closing inventory}} = \frac{360}{55}$$

(7) Accounts Receivable period = 36 days

$$\frac{\text{Accounts Receivable}}{\text{Credit sales}} \times 360 = 36$$

$$\text{Accounts Receivable} = \frac{36}{360} \times \text{credit sales}$$

$$= \frac{36}{360} \times 80,00,000 \text{ (assumed all sales are on credit)}$$

$$\textbf{Accounts Receivable} = \textbf{₹ 8,00,000}$$

(8) Quick Ratio = 0.9

$$\frac{\text{Quick Assets}}{\text{Current liabilities}} = 0.9$$

$$\frac{\text{Cash + Debtors}}{11,00,000} = 0.9$$

$$\text{Cash} + 8,00,000 = \text{₹ 9,90,000}$$

$$\textbf{Cash} = \textbf{₹ 1,90,000}$$

$$(9) \text{ Fixed Assets} = \text{Total Assets} - \text{Current Assets} = 50,00,000 - (9,77,778 + 8,00,000 + 1,90,000) = 30,32,222$$

Balance Sheet of ABC Industries as on 31st March 2021

Liabilities	(₹)	Assets	(₹)
Share Capital	20,00,000	Fixed Assets	30,32,222
Reserved surplus	10,00,000	Current Assets:	
Long Term Debt	9,00,000	Inventory	9,77,778
Accounts Payable	11,00,000	Accounts Receivables	8,00,000
		Cash	1,90,000
Total	50,00,000	Total	50,00,000

(***Note:** Equity shareholders' fund represent equity in 'Long term debts to equity ratio'. The question can be solved assuming only share capital as 'equity')

ILLUSTRATION 9(MTP MAY 2019 SERIES 2) 5 MARKS

With the help of the following information ANALYSE and complete the Balance Sheet of Anup Ltd.:

Equity share capital	Rs. 1,00,000
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The relevant ratios of the company are as follows:

Current debt to total debt	0.40
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Total debt to Equity share capital	0.60
------------------------------------	------

<u>Fixed</u> assets to Equity share capital	0.60
---	------

Total assets turnover	2 Times
-----------------------	---------

Inventory turnover	8 Times
--------------------	---------

Balance sheet

Equity share Capital 100000

Total Debt

Current Debt 24000

Long term Debt 36000 60000

160000

Fixed Assets 60000

Current Asset 100000

Other CA 60000

Inventory 40000

160000

(d)

MNOP Ltd.

Balance Sheet

Liabilities	Rs.	Assets	Rs.
Equity share capital	1,00,000	Fixed assets	60,000
Current debt	24,000	Cash (balancing figure)	60,000
Long term debt	36,000	Inventory	40,000
	1,60,000		1,60,000

Working Notes

- Total debt = $0.60 \times \text{Equity share capital} = 0.60 \times \text{Rs. } 1,00,000 = \text{Rs. } 60,000$
Further, Current debt to total debt = 0.40. So, current debt = $0.40 \times \text{Rs. } 60,000 = \text{Rs. } 24,000$
Long term debt = $\text{Rs. } 60,000 - \text{Rs. } 24,000 = \text{Rs. } 36,000$
- Fixed assets = $0.60 \times \text{Equity share Capital} = 0.60 \times \text{Rs. } 1,00,000 = \text{Rs. } 60,000$
- Total assets to turnover = 2 Times : Inventory turnover = 8 Times
Hence, $\text{Inventory} / \text{Total assets} = 2/8 = 1/4$, Total assets = Rs. 1,60,000
Therefore Inventory = $\text{Rs. } 1,60,000 / 4 = \text{Rs. } 40,000$

ILLUSTRATION 10 PYQ MAY 22 (5 MARKS)

Following information and ratios are given for W Limited for the year ended 31st March, 2022:

Equity Share Capital of ₹ 10 each	₹ 10 lakhs
Reserves & Surplus to Shareholders' Fund	0.50
Sales / Shareholders' Fund	1.50
Current Ratio	2.50
Debtors Turnover Ratio	6.00
Stock Velocity	2 Months
Gross Profit Ratio	20%
Net Working Capital Turnover Ratio	2.50

You are required to calculate:

- (i) Shareholders' Fund
- (ii) Stock
- (iii) Debtors
- (iv) Current liabilities
- (v) Cash Balance.

SOLUTION

(i) Calculation of Shareholders' Fund:

$$\frac{\text{Reserve \& Surplus}}{\text{Shareholders' Funds}} = 0.5$$

$$\frac{\text{Reserve \& Surplus}}{\text{Equity Share Capital + Reserve \& Surplus}} = 0.5$$

$$\frac{\text{Reserve \& Surplus}}{10,00,000 + \text{Reserve \& Surplus}} = 0.5$$

$$\text{Reserve \& Surplus} = 5,00,000 + 0.5 \text{ Reserve \& Surplus}$$

$$0.5 \text{ Reserve \& Surplus} = 5,00,000$$

$$\text{Reserve \& Surplus} = 10,00,000$$

$$\text{Shareholders' funds} = 10,00,000 + 10,00,000$$

$$\text{Shareholders' funds} = ₹ 20,00,000$$

(ii) Calculation of Value of Stock:

$$\frac{\text{Sales}}{\text{Shareholders' Funds}} = 1.5$$

$$\text{Sales} = 1.5 \times 20,00,000$$

$$\text{Sales} = 30,00,000$$

$$\text{Gross Profit} = 30,00,000 \times 20\% = 6,00,000$$

$$\begin{aligned}\text{Cost of Goods Sold} &= 30,00,000 - 6,00,000 \\ &= ₹ 24,00,000\end{aligned}$$

$$\text{Stock velocity} = 2 \text{ months}$$

$$\frac{\text{Average Stock}}{\text{Cost of Goods Sold}} \times 12 = 2$$

$$\frac{\text{Average Stock}}{24,00,000} \times 12 = 2$$

$$\text{Average Stock} = 24,00,000 \times \frac{2}{12}$$

$$\text{Average stock} = ₹ 4,00,000$$

(iii) Calculation of Debtors:

$$\text{Debtors Turnover Ratio} = 6$$

$$\therefore \frac{\text{Sales}}{\text{Average Debtor}} = 6$$

$$\therefore \frac{30,00,000}{\text{Average Debtor}} = 6$$

Average Debtors = ₹ 5,00,000

(iv) Calculation of Current Liabilities:

Net Working Capital Turnover ratio = 2.5

$$\frac{\text{Sales}}{\text{Current Assets} - \text{Current Liabilities}} = 2.5$$

$$\frac{30,00,000}{\text{Current Assets} - \text{Current Liabilities}} = 2.5$$

Current Assets – Current Liabilities = 12,00,000 (1)

Current Ratio = 2.5

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

$$\text{Current Assets} = 2.5 \text{ Current Liabilities} \dots\dots\dots(2)$$

From (1) & (2),

$$2.5 \text{ Current Liabilities} - \text{Current Liabilities} = 12,00,000$$

$$1.5 \text{ Current Liabilities} = 12,00,000$$

$$\text{Current Liabilities} = \text{₹ } 8,00,000$$

(v) Calculation of Cash Balance:

$$\text{Current Assets} = 2.5 \text{ Current Liabilities}$$

Current Assets = 2.5 (8,00,000)	= 20,00,000
(-) Debtors	(5,00,000)
(-) Stock	(4,00,000)
Cash Balance	₹ 11,00,000

ILLUSTRATION 11 PYQ MAY 23 (10 MARKS)

Following information and ratios are given in respect of AQUA Ltd. for the year ended 31st March, 2023:

<i>Current ratio</i>	4.0
<i>Acid test ratio</i>	2.5
<i>Inventory turnover ratio (based on sales)</i>	6
<i>Average collection period (days)</i>	70
<i>Earnings per share</i>	₹ 3.5
<i>Current liabilities</i>	₹ 3,10,000
<i>Total assets turnover ratio (based on sales)</i>	0.96
<i>Cash ratio</i>	0.43
<i>Proprietary ratio</i>	0.48
<i>Total equity dividend</i>	₹ 1,75,000
<i>Equity dividend coverage ratio</i>	1.60

Assume 360 days in a year.

You are required to complete Balance Sheet as on 31st March, 2023.

Balance Sheet as on 31st March, 2023.

Liabilities	₹	Assets	₹
Equity share capital (₹10 per share)	800000XXX	Fixed assets (B.P.)	166625XXX
Reserves & surplus	595000XXX	Inventory	465000XXX
Long-term debt (B.P.)	1201250XXX	Debtors	542500XXX
Current liabilities	3,10,000	Loans & advances (B.P.)	99200XXX
		Cash & bank	133300XXX
Total	2906250XXX	Total	2906250XXX

Solution

Balance Sheet as on 31st March 2023

Liabilities	₹	Assets	₹
Equity Share Capital (₹ 10 per share)	8,00,000	Fixed Assets (B/F)	16,66,250
Reserves & Surplus	5,95,000	Inventory	4,65,000
Long-term debt *(B/F)	12,01,250	Receivables	5,42,500
Current Liabilities	3,10,000	Loans & Advances	99,200
		Cash & Bank	1,33,300
Total	29,06,250	Total	29,06,250

(i) Current Ratio = 4

$$\frac{\text{Current Assets}}{\text{Current Liabilities}} = 4$$

$$\therefore \frac{\text{Current Assets}}{3,10,000} = 4$$

$$\therefore \text{Current Assets} = ₹ 12,40,000$$

(ii) Acid Test Ratio = 2.5

$$\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} = 2.5$$

$$\therefore \frac{12,40,000 - \text{Inventory}}{3,10,000} = 2.5$$

$$\therefore 12,40,000 - \text{Inventory} = ₹ 7,75,000$$

$$\text{Inventory} = ₹ 4,65,000$$

(iii) Inventory Turnover Ratio (on Sales) = 6

$$\frac{\text{Sales}}{\text{Inventory}} = 6$$

$$\frac{\text{Sales}}{4,65,000} = 6$$

$$\therefore \text{Sales} = ₹ 27,90,000$$

(iv) Debtors Collection Period = 70 days

$$\therefore (\text{Debtors} / \text{sales}) \times 360 = 70$$

$$\therefore (\text{Debtors} / 27,90,000) \times 360 = 70$$

$$\text{Debtors} = ₹ 5,42,500$$

(v) Total Assets Turnover Ratio (on Sales) = 0.96

$$\therefore \frac{\text{Sales}}{\text{Total Assets}} = 0.96$$

$$\therefore \frac{27,90,000}{\text{Total Assets}} = 0.96$$

Total Assets = ₹ 29,06,250

(vi) Fixed Assets (FA) = Total Assets – Current Assets

$$= 29,06,250 - 12,40,000$$

$$\text{Fixed Assets} = ₹ 16,66,250$$

(vii) Cash Ratio = $\frac{\text{Cash}}{\text{Current Liabilities}} = 0.43$

$$\therefore \frac{\text{Cash}}{3,10,000} = 0.43$$

$$\therefore \text{Cash} = ₹ 1,33,300$$

(viii) Proprietary Ratio = $\frac{\text{Proprietary Fund}}{\text{Total Assets}} = 0.48$

$$\therefore \frac{\text{Proprietary Fund}}{29,06,250} = 0.48$$

$$\therefore \text{Proprietary Fund} = ₹ 13,95,000$$

(ix) Equity Dividend Coverage Ratio = 1.6

$$\text{or } \frac{\text{EPS}}{\text{DPS}} = \frac{3.5}{\text{DPS}}$$

$$\therefore \text{DPS} = ₹ 2.1875$$

$$\text{DPS} = \frac{\text{Total Dividend}}{\text{Number of Equity Shares}}$$

$$\therefore 2.1875 = \frac{1,75,000}{\text{Number of Equity Shares}}$$

$$\therefore \text{Number of Equity Shares} = 80,000$$

$$\therefore \text{Equity Share Capital} = 80,000 \times 10 = ₹ 8,00,000$$

$$\therefore \text{Reserves \& Surplus} = 13,95,000 - 8,00,000 = ₹ 5,95,000$$

(x) Loans and Advances = Current Assets - (Inventory + Receivables + Cash & Bank)

$$= ₹ 12,40,000 - (₹ 4,65,000 + 5,42,500 + 1,33,300) = ₹ 99,200$$

ILLUSTRATION 12 NOV 22 (SERIES 2) (10 MARKS)

From the following information and ratios, PREPARE the Balance sheet as at 31st March 2022 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

Trading & P/L

		By sales	50 00 000
TO COGS	30 00 000		
TO GP	20 00 000		
	<u>50 00 000</u>		<u>50 00 000</u>

TO DP. EXP govt BY CP 2000

To Int 600m

To NY Zoom

2000m

2000 m

B/S

Equity

225000

FA

625000

Worn

500000

CA

150000

CL

500000

Inventory 100000

Debtors 416667

Other
CA 83333

775000

775000

SOLUTION

1. Current Ratio = 3:1

Current Assets (CA)/Current Liability (CL) = 3:1

$$CA = 3CL$$

$$WC = 10,00,000$$

$$CA - CL = 10,00,000$$

$$3CL - CL = 10,00,000$$

$$2CL = 10,00,000$$

$$CL = \frac{10,00,000}{2}$$

$$\mathbf{CL = ₹5,00,000}$$

$$CA = 3 \times 5,00,000$$

$$\mathbf{CA = ₹15,00,000}$$

2. Acid Test Ratio = CA – Stock / CL = 1:1

$$= \frac{15,00,000 - \text{Stock}}{5,00,000} = 1$$

$$15,00,000 - \text{stock} = 5,00,000$$

Stock = ₹10,00,000

3. Stock Turnover ratio (on sales) = 5

$$\frac{\text{Sales}}{\text{Avg stock}} = 5$$

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

Sales = ₹50,00,000

4. **Gross Profit** = 50,00,000 x 40% = ₹20,00,000

Net profit (PBT) = 50,00,000 x 10% = ₹5,00,000

5. $\text{PBIT/PBT} = 2.2$

$$\text{PBIT} = 2.2 \times 5,00,000$$

$$\text{PBIT} = 11,00,000$$

$$\text{Interest} = 11,00,000 - 5,00,000 = \text{₹}6,00,000$$

$$\text{Long term loan} = \frac{6,00,000}{0.12} = \text{₹}50,00,000$$

6. Average collection period = 30 days

$$\text{Receivables} = \frac{30}{360} \times 50,00,000 = 4,16,667$$

7. Fixed Assets Turnover Ratio = 0.8

$$50,00,000 / \text{Fixed Assets} = 0.8$$

$$\text{Fixed Assets} = \text{₹}62,50,000$$

Income Statement

	Amount (₹)
Sales	50,00,000
Less: Cost of Goods Sold	30,00,000
Gross Profit	20,00,000
Less: Operating Expenses	9,00,000
Less: Interest.	6,00,000
Net Profit	5,00,000

Balance sheet

Liabilities	Amount (₹)	Assets	Amount (₹)
Equity share capital	22,50,000	Fixed asset	62,50,000
Long term debt	50,00,000	Current assets:	
Current liability	5,00,000	Stock 10,00,000	
		Receivables 4,16,667	
		Other 83,333	15,00,000
	77,50,000		77,50,000

ILLUSTRATION 13 (10 MARKS)

The following accounting information and financial ratios of A&R Limited relate to the year ended 31st March, 2020:

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.6,00,00,000; cash sales 25% of credit sales; cash purchases Rs.46,00,000; working capital Rs.56,00,000; closing inventory is Rs.16,00,000 more than opening inventory.

You are required to CALCULATE:

- (i) Average Inventory 750000
- (ii) Purchases 4660000
- (iii) Average Debtors 600000
- (iv) Average Creditors 420000
- (v) Average Payment Period 36.5 Days.
- (vi) Average Collection Period 45.63 Days.
- (vii) Current Assets 960000
- (viii) Current Liabilities. 400000

Take 365 days a year

(i) Computation of Average Inventory

Gross Profit = 25% of Rs.6,00,00,000 = Rs.1,50,00,000

$$\begin{aligned}\text{Cost of goods sold (COGS)} &= \text{Sales} - \text{Gross Profit} \\ &= \text{Rs.6,00,00,000} - \text{Rs.1,50,00,000} \\ &= \text{Rs.4,50,00,000}\end{aligned}$$

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

$$6 = \frac{\text{Rs.4,50,00,000}}{\text{Average inventory}}$$

Average inventory = Rs.75,00,000

(ii) Computation of Purchases

$$\text{Purchases} = \text{COGS} + (\text{Closing Stock} - \text{Opening Stock})$$

$$= \text{Rs.}4,50,00,000 + 16,00,000^*$$

$$\text{Purchases} = \text{Rs.}4,66,00,000$$

$$^* \text{ Increase in Stock} = \text{Closing Stock} - \text{Opening Stock} = \text{Rs.}16,00,000$$

(iii) Computation of Average Debtors

Let Credit Sales be Rs.100, Cash sales = $\frac{25}{100} \times 100 = \text{Rs.}25$

Total Sales = 100 + 25 = Rs.125

Total sales is Rs.125 credit sales is Rs.100

If total sales is Rs.6,00,00,000, then credit sales is = $\frac{\text{Rs. } 6,00,00,000 \times 100}{125}$

Credit Sales = Rs.4,80,00,000

Cash Sales = (Rs.6,00,00,000 – Rs.4,80,00,000) = Rs.1,20,00,000

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

$$= \frac{\text{Rs.4,80,00,000}}{\text{Average debtors}} = 8$$

$$\text{Average Debtors} = \frac{\text{Rs.4,80,00,000}}{8}$$

$$\text{Average Debtors} = \text{Rs.60,00,000}$$

(iv) Computation of Average Creditors

$$\begin{aligned}\text{Credit Purchases} &= \text{Purchases} - \text{Cash Purchases} \\ &= \text{Rs.4,66,00,000} - \text{Rs.46,00,000} = \text{Rs.4,20,00,000}\end{aligned}$$

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

$$10 = \frac{\text{Rs.4,20,00,000}}{\text{Average Creditors}}$$

$$\text{Average Creditors} = \text{Rs.42,00,000}$$

(v) **Computation of Average Payment Period**

$$\begin{aligned}\text{Average Payment Period} &= \frac{\text{Average Creditors}}{\text{Average Daily Credit Purchases}} \\ &= \frac{\text{Rs. 42,00,000}}{\left(\frac{\text{Credit Purchases}}{365}\right)} = \frac{\text{Rs. 42,00,000}}{\left(\frac{\text{Rs. 4,20,00,000}}{365}\right)} \\ &= \frac{\text{Rs. 42,00,000}}{\text{Rs. 4,20,00,000}} \times 365 = 36.5 \text{ days}\end{aligned}$$



Alternatively

$$\begin{aligned}\text{Average Payment Period} &= 365 / \text{Creditors Turnover Ratio} \\ &= \frac{365}{10} = 36.5 \text{ days}\end{aligned}$$



(vi) Computation of Average Collection Period

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

$$= \frac{\text{Rs.60,00,000}}{\text{Rs.4,80,00,000}} \times 365 = 45.625 \text{ days}$$

Alternatively

$$\begin{aligned} \text{Average collection period} &= \frac{365}{\text{Debtors Turnover Ratio}} \\ &= \frac{365}{8} = 45.625 \text{ days} \end{aligned}$$

(vii) Computation of Current Assets

$$\text{Current Ratio} = \frac{\text{Current Assets (CA)}}{\text{Current Liabilities (CL)}} = 2.4$$

$$2.4 \text{ Current Liabilities} = \text{Current Assets}$$

$$\text{or CL} = \frac{\text{CA}}{2.4}$$

Further, Working capital = Current Assets – Current liabilities

$$\text{So, Rs.56,00,000} = \text{CA} - \frac{\text{CA}}{2.4}$$

$$\text{Rs.56,00,000} = \frac{1.4\text{CA}}{2.4} \quad \text{Or, } 1.4 \text{ CA} = \text{Rs.1,34,40,000}$$

$$\text{CA} = \text{Rs.96,00,000}$$

(viii) Computation of Current Liabilities

$$\text{Current liabilities} = \frac{\text{Rs.96,00,000}}{2.4} = \text{Rs.40,00,000}$$

ILLUSTRATION 14 (5 MARKS)

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.

The net profit is calculated as follows:

	Rs.
Sales Revenue	45,00,000
Less: Direct Costs	30,00,000
Gross Profits	15,00,000
Less: Operating Expense	4,80,000
Earnings before Interest and tax (EBIT)	10,20,000
Less: Interest on debt ($9\% \times 15,00,000$)	1,35,000
Earnings before Tax) (EBT)	8,85,000
Less: Taxes (@ 40%)	3,54,000
Profit after Tax (PAT)	5,31,000

(i) **Net Profit Margin (After Tax)**

$$\text{Net Profit Margin} = \frac{\text{EBIT} (1-t)}{\text{Sales}} \times 100 = \frac{\text{Rs. } 10,20,000 \times (1-0.4)}{\text{Rs. } 45,00,000} = 13.6\%$$

$$\frac{\text{₹ } 31000}{450000} \times 100 = 11.80\%$$

(ii) **Return on Assets (ROA) (After tax)**

$$\begin{aligned} \text{ROA} &= \frac{\text{EBIT} (1-t)}{\text{Total Assets}} \\ &= \frac{\text{Rs. } 10,20,000 (1-0.4)}{\text{Rs. } 50,00,000} = \frac{\text{Rs. } 6,12,000}{\text{Rs. } 50,00,000} \\ &= 0.1224 = 12.24\% \end{aligned}$$

(iii) **Asset Turnover**

$$\text{Asset Turnover} = \frac{\text{Sales}}{\text{Assets}} = \frac{\text{Rs. } 45,00,000}{\text{Rs. } 50,00,000} = 0.9$$

$$\text{Asset Turnover} = 0.9 \text{ times}$$

(iv) **Return on Equity (ROE)**

$$\text{ROE} = \frac{\text{PAT}}{\text{Equity}} = \frac{\text{Rs. } 5,31,000}{\text{Rs. } 35,00,000} = 15.17\%$$

ILLUSTRATION 15 (5 MARKS)

The following is the information of XML Ltd. relate to the year ended 31-03-2018 :

<i>Gross Profit</i>	<i>20% of Sales</i>
<i>Net Profit</i>	<i>10% of Sales</i>
<i>Inventory Holding period</i>	<i>3 months</i>
<i>Receivable collection period</i>	<i>3 months</i>
<i>Non-Current Assets to Sales</i>	<i>1 : 4</i>
<i>Non-Current Assets to Current Assets</i>	<i>1 : 2</i>
<i>Current Ratio</i>	<i>2 : 1</i>
<i>Non-Current Liabilities to Current Liabilities</i>	<i>1 : 1</i>
<i>Share Capital to Reserve and Surplus</i>	<i>4 : 1</i>
<i>Non-current Assets as on 31st March, 2017</i>	<i>₹ 50,00,000</i>

Assume that:

- (i) No change in Non-Current Assets during the year 2017-18*
- (ii) No depreciation charged on Non-Current Assets during the year 2017-18.*
- (iii) Ignoring Tax*

You are required to Calculate cost of goods sold, Net profit, Inventory, Receivables and Cash for the year ended on 31st March, 2018

SOLUTION

Workings

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

$$\text{Or } \frac{50,00,000}{\text{Current Assets}} = \frac{1}{2}$$

$$\text{So, Current Assets} = ₹ 1,00,00,000$$

Now further,

$$\frac{\text{Non Current Assets}}{\text{Sales}} = \frac{1}{4}$$

$$\text{Or } \frac{50,00,000}{\text{Sales}} = \frac{1}{4}$$

$$\text{So, Sales} = ₹ 2,00,00,000$$

Calculation of Cost of Goods sold, Net profit, Inventory, Receivables and Cash:

(i) Cost of Goods Sold (COGS):

$$\text{Cost of Goods Sold} = \text{Sales} - \text{Gross Profit}$$

$$= ₹ 2,00,00,000 - 20\% \text{ of } ₹ 2,00,00,000$$

$$= ₹ 1,60,00,000$$

(ii) Net Profit = 10% of Sales = 10% of ₹ 2,00,00,000

$$= ₹ 20,00,000$$

(iii) Inventory:

$$\text{Inventory Holding Period} = \frac{12 \text{ Months}}{\text{Inventory Turnover Ratio}}$$

$$\text{Inventory Turnover Ratio} = 12 / 3 = 4$$

$$4 = \frac{\text{COGS}}{\text{Average Inventory}}$$

$$4 = \frac{1,60,00,000}{\text{Average Inventory}}$$

Average or Closing Inventory = ₹ 40,00,000

(iv) Receivables :

$$\text{Receivable Collection Period} = \frac{12 \text{ Months}}{\text{Receivables Turnover Ratio}}$$

$$\text{Or Receivables Turnover Ratio} = 12 / 3 = 4 = \frac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$$

$$\text{Or } 4 = \frac{2,00,00,000}{\text{Average Accounts Receivable}}$$

So, Average Accounts Receivable/Receivables = ₹ 50,00,000/-

(v) Cash:

$$\text{Cash}^* = \text{Current Assets}^* - \text{Inventory} - \text{Receivables}$$

$$\begin{aligned}\text{Cash} &= ₹ 1,00,00,000 - ₹ 40,00,000 - ₹ 50,00,000 \\ &= ₹ 10,00,000\end{aligned}$$

(it is assumed that no other current assets are included in the Current Asset)



thank you!

