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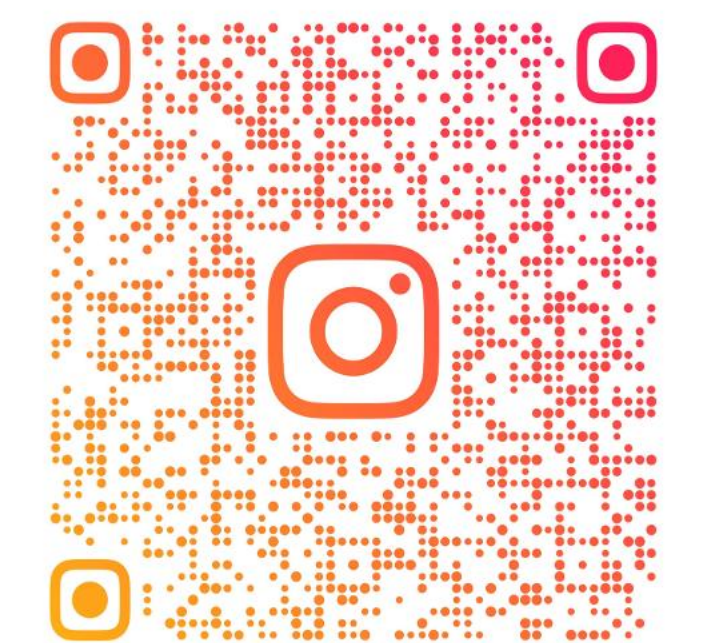


CA ADARSH JOSHI

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

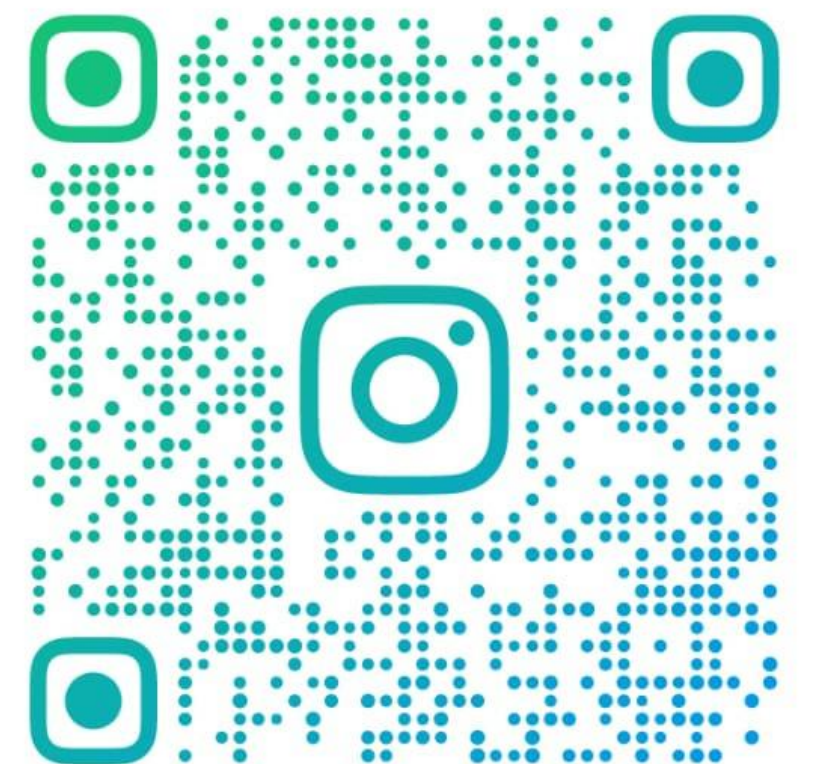


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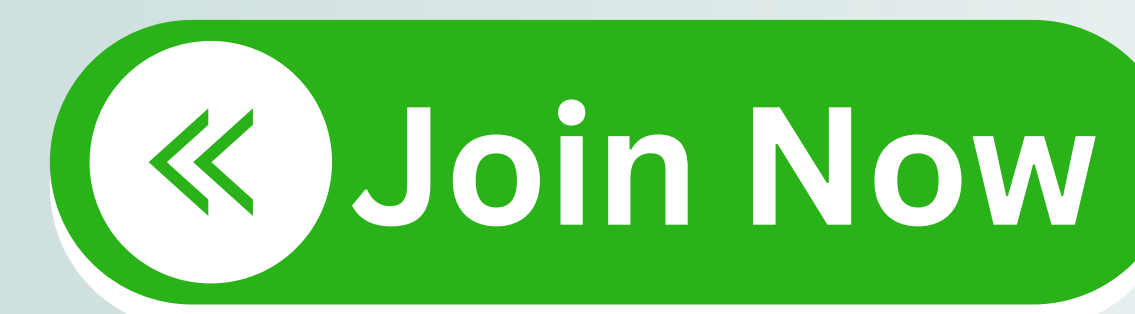
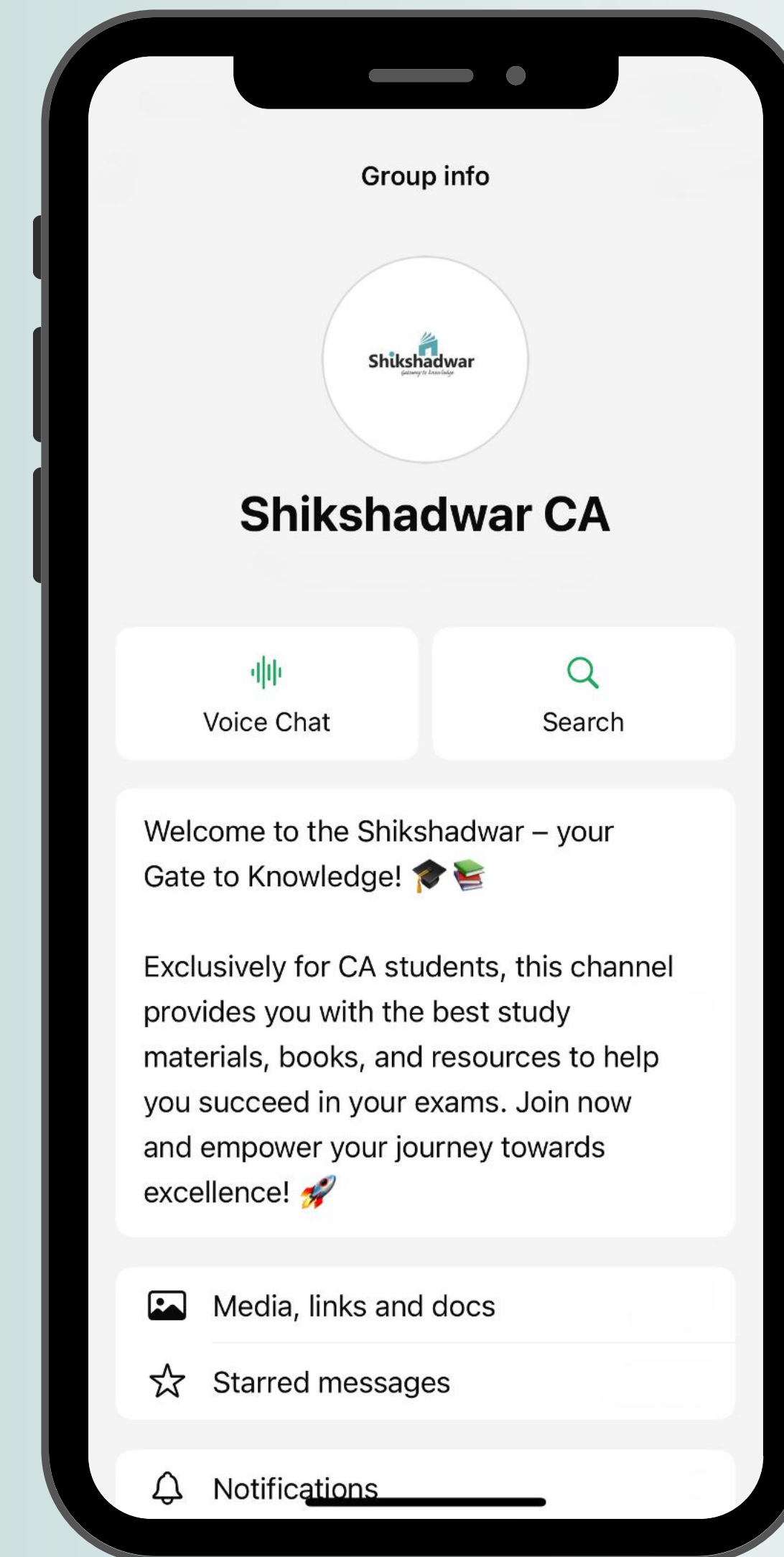
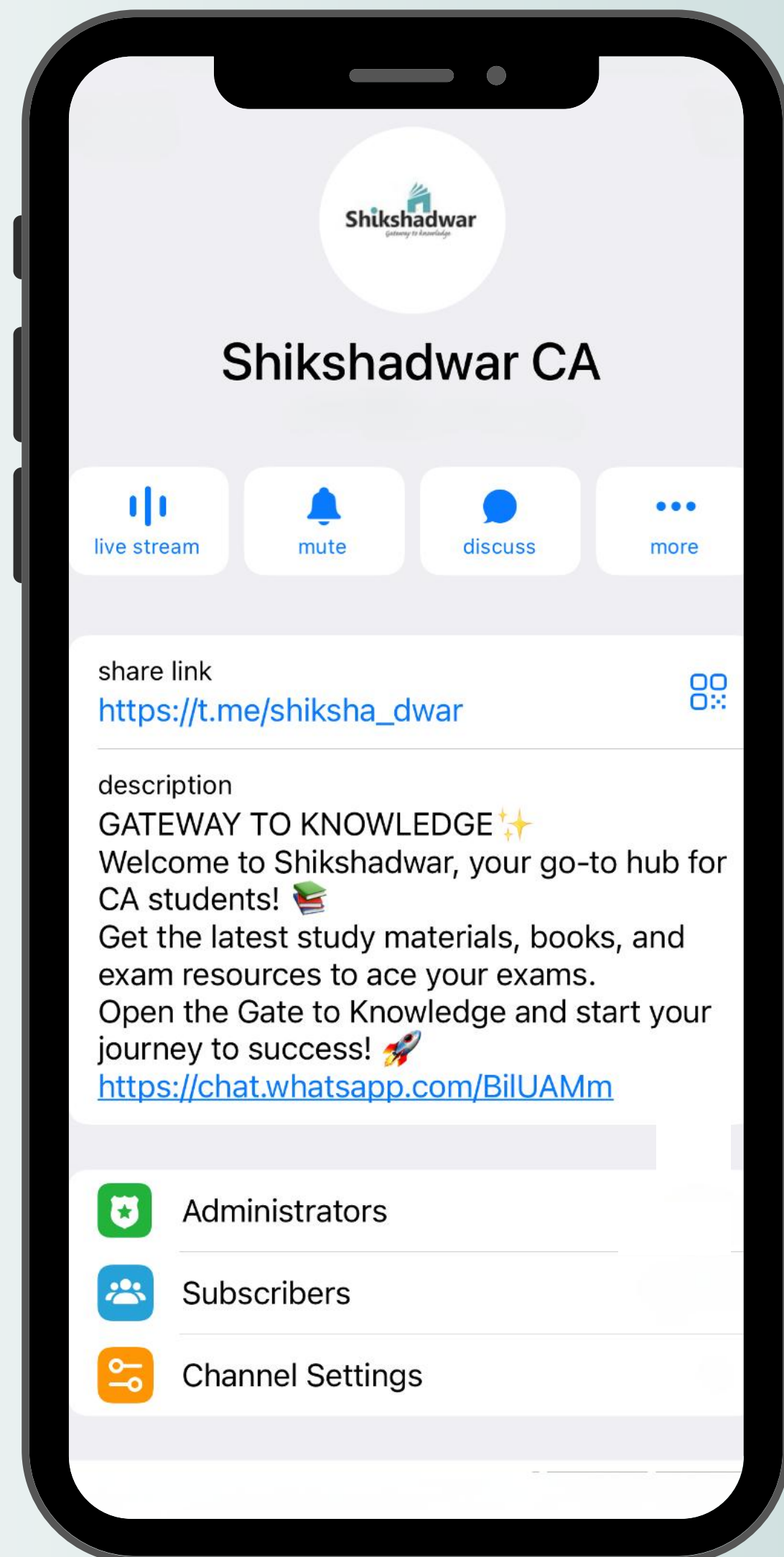
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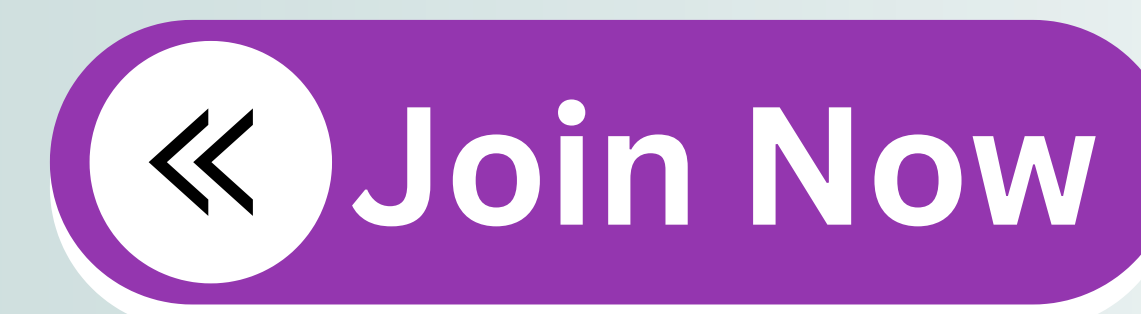
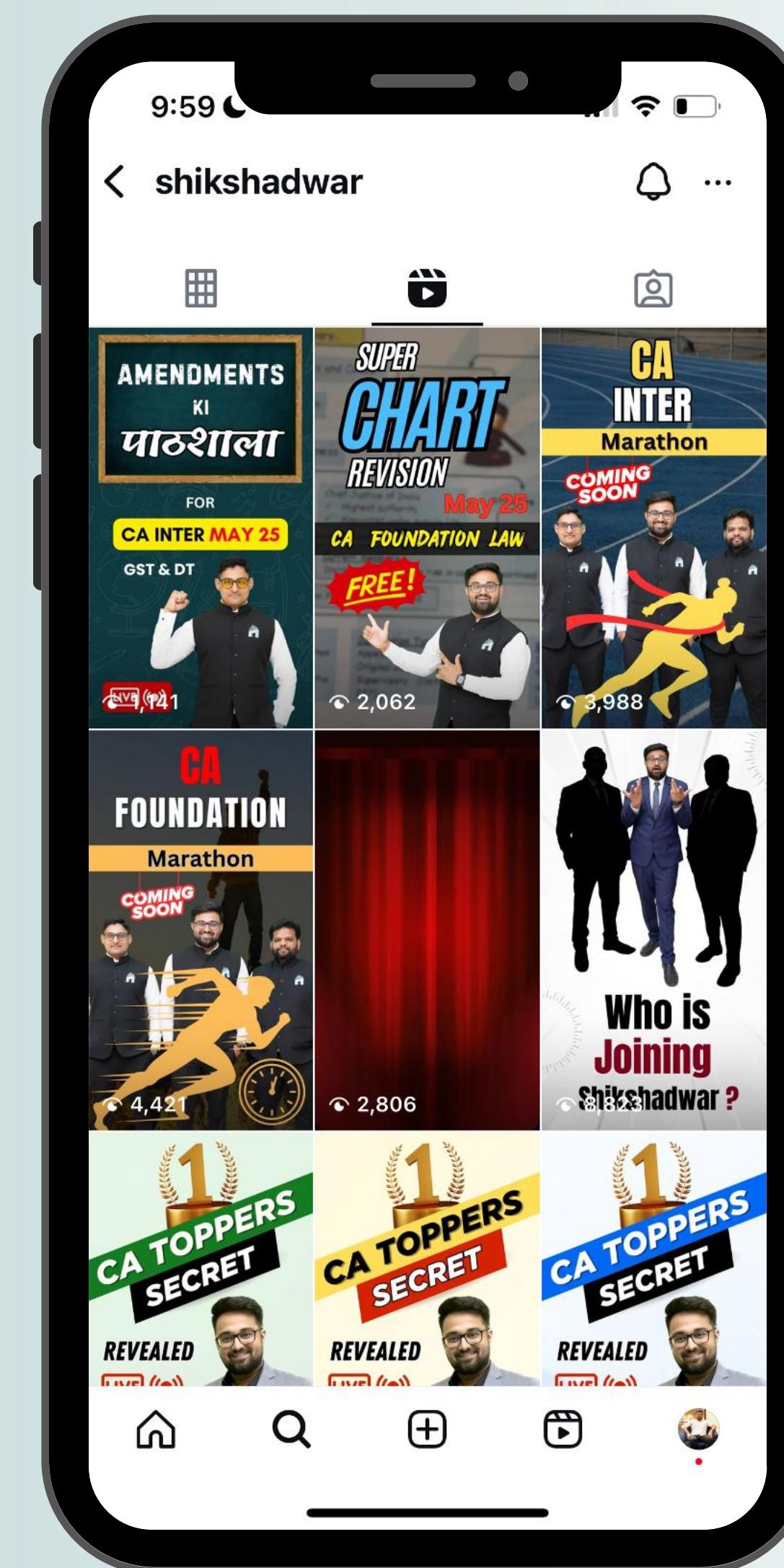
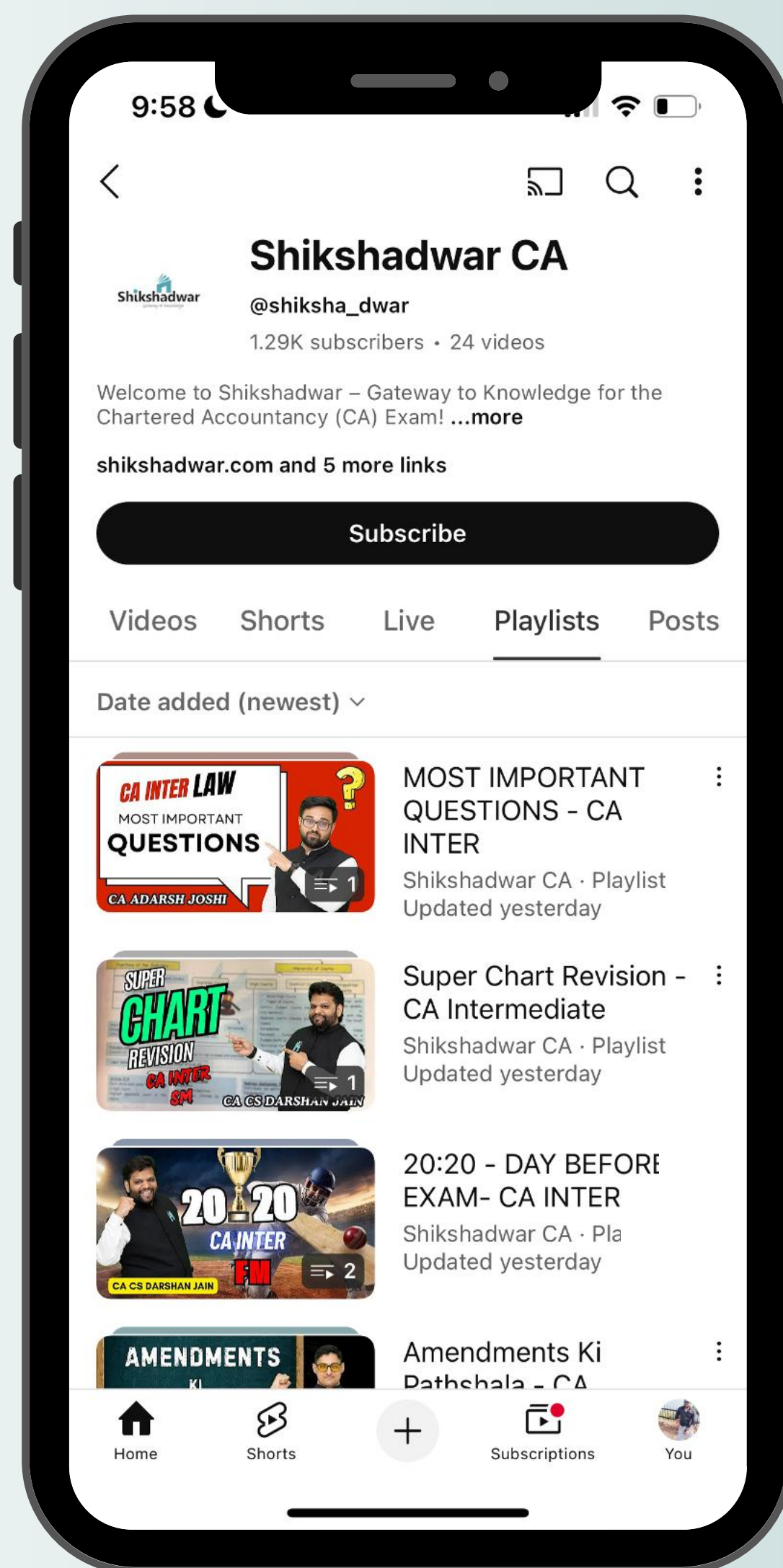
CA , LLB

- 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.
- Frequently invited as a visiting faculty for Taxation at reputed coaching institutes.
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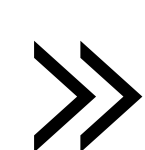
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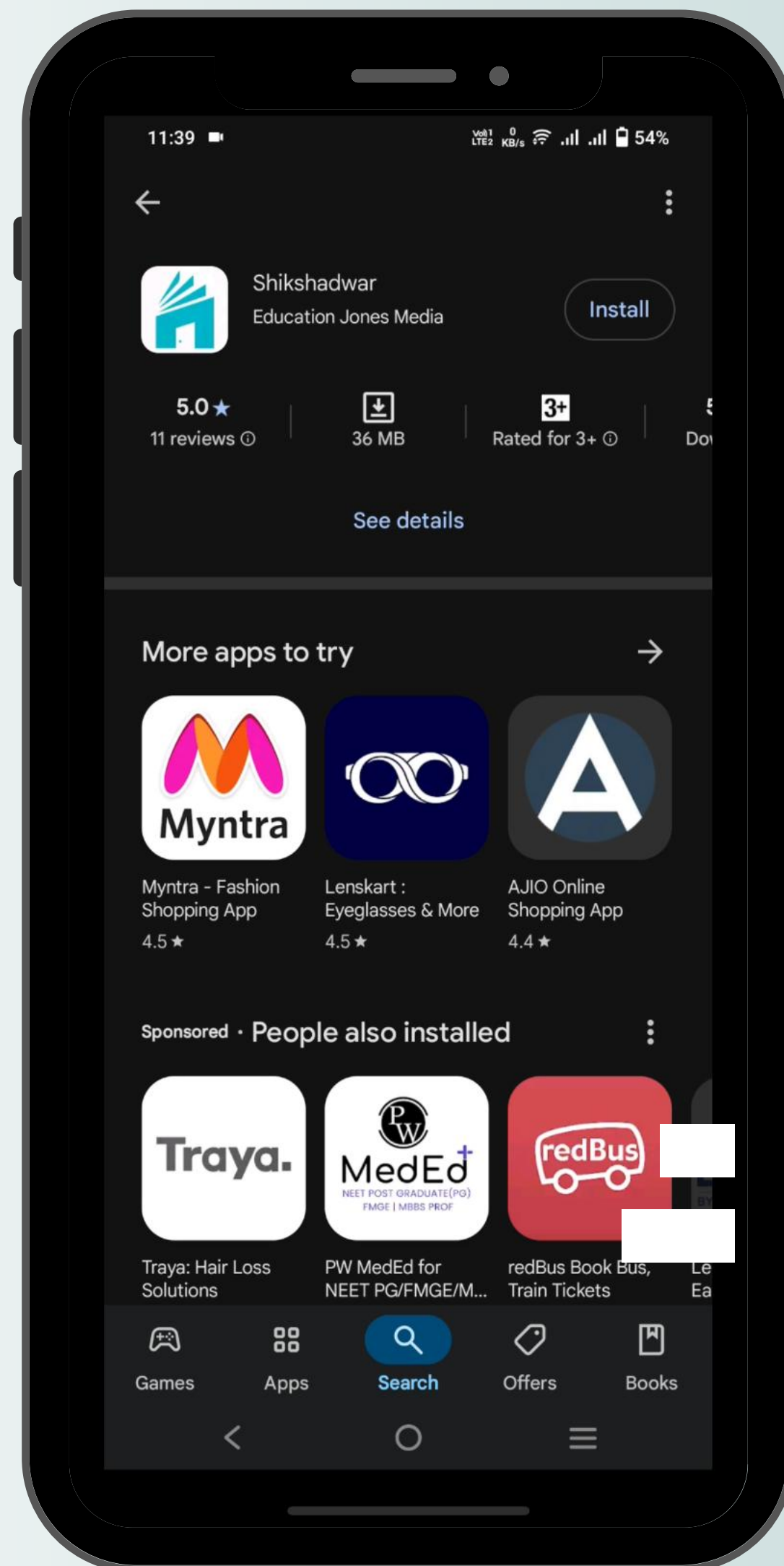
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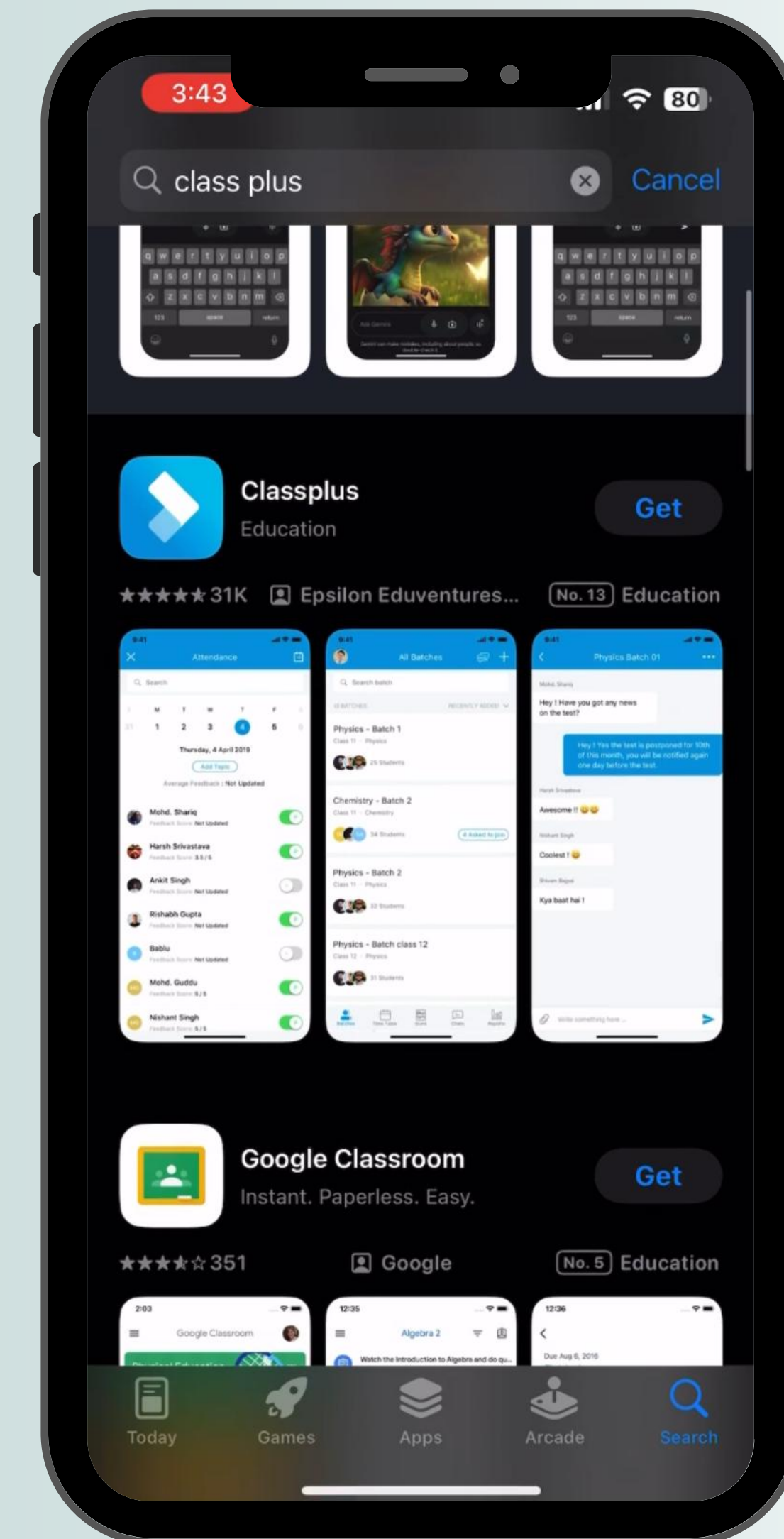
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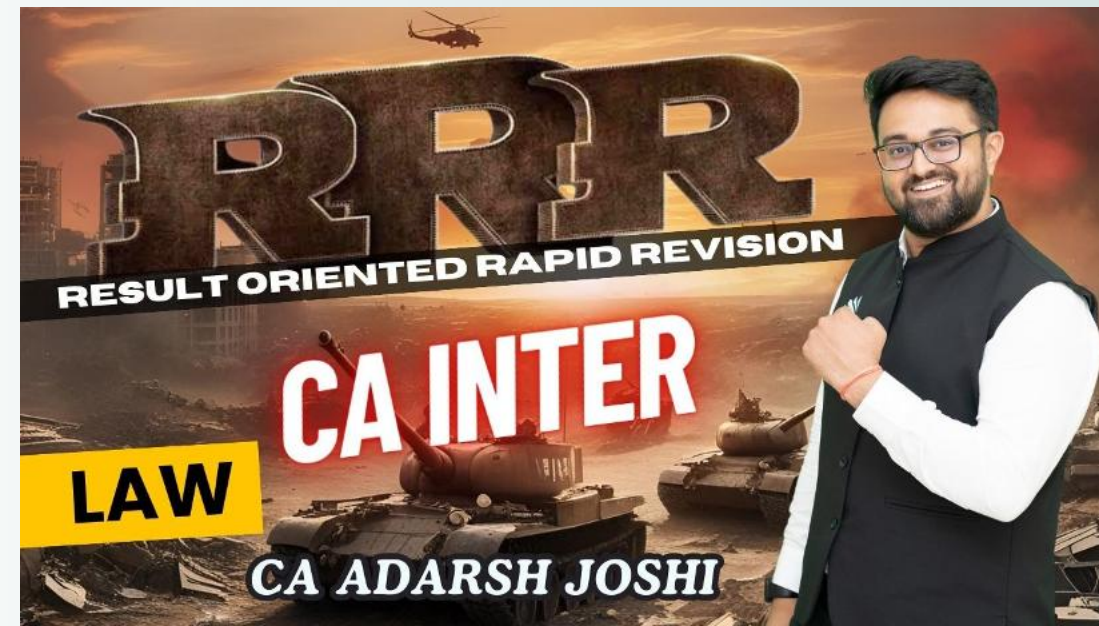
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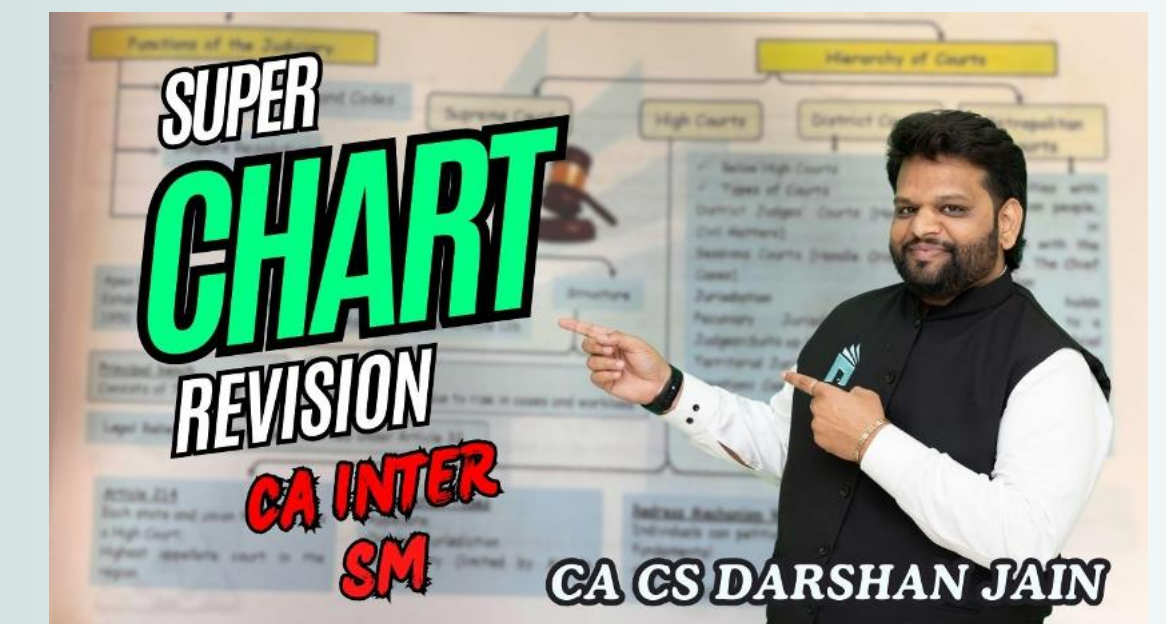
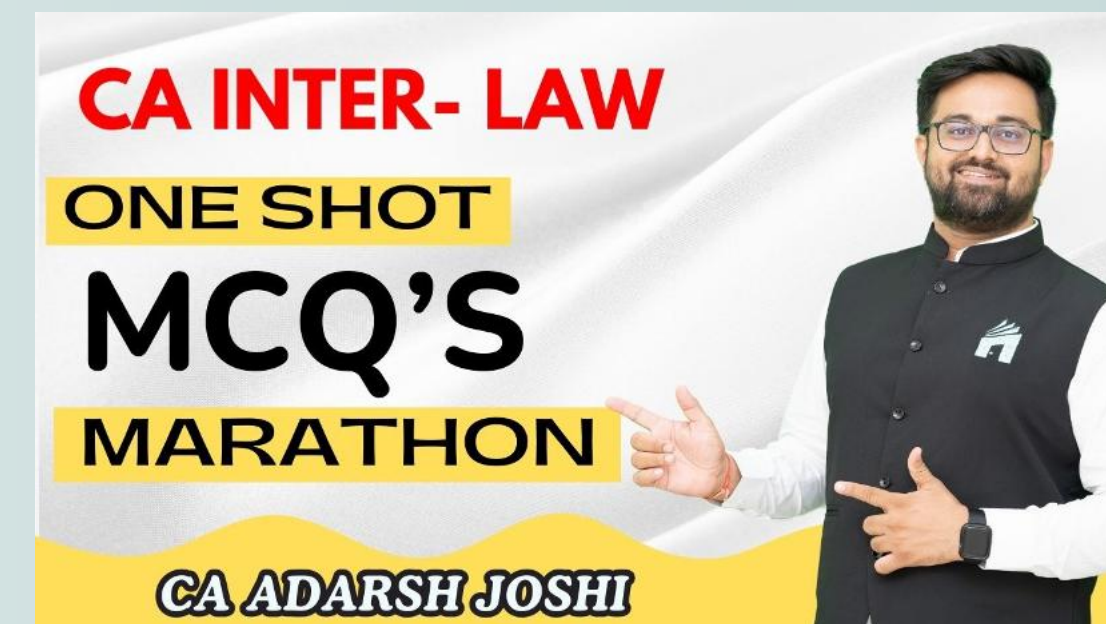
CA INTERMEDIATE MAY 25

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

WORKING CAPITAL MANAGEMENT

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

ESTIMATION & FINANCING OF WORKING CAPITAL

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
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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

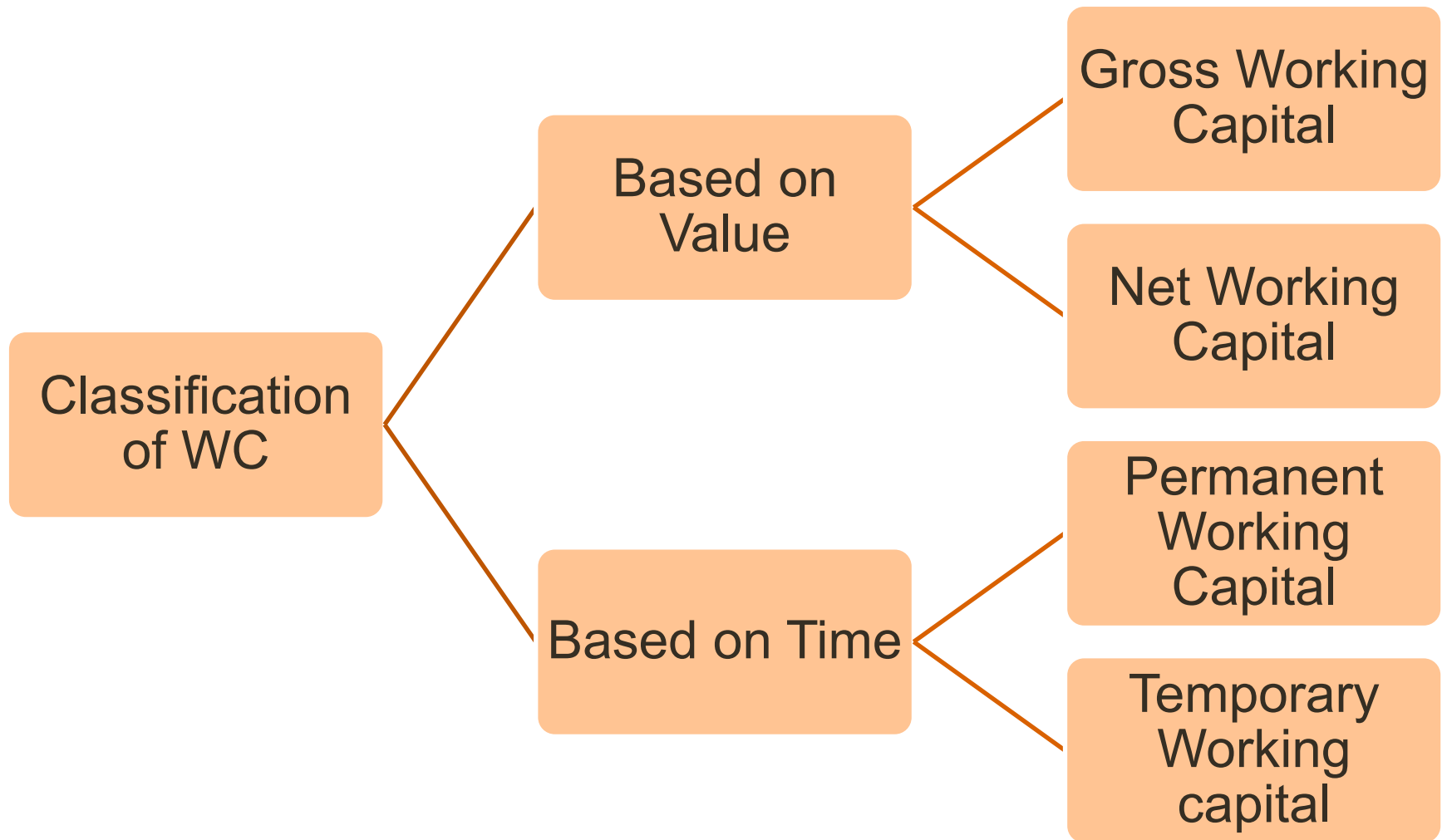
- ☐ Introduction.
- ☐ Classification of Working Capital
- ☐ Importance of Adequate Working Capital
- ☐ Signs of Adequate Working Capital
- ☐ Factors to Be Considered While Planning Working Capital Requirement
- ☐ Approaches for Estimation of Working Capital Requirements
- ☐ Operating/Working Capital Cycle
- ☐ **Formulas for Valuation of Elements of Working Capital** - Raw Material Stock Valuation, Work In Progress Valuation, Finished Goods Valuation, Debtors Valuation, Creditors Valuation, Outstanding Wages Valuation, Prepaid Expenses Valuation.
- ☐ Liquidity vs. Profitability in Management Of Working Capital Requirement.
- ☐ Statement Showing Estimation of Working capital
- ☐ Approaches of Working Capital Investment
- ☐ Impact of Double Shift Working On Working Capital Requirements.
- ☐ Maximum Permissible Bank Finance
- ☐ Important points
- ☐ Problems.

INTRODUCTION

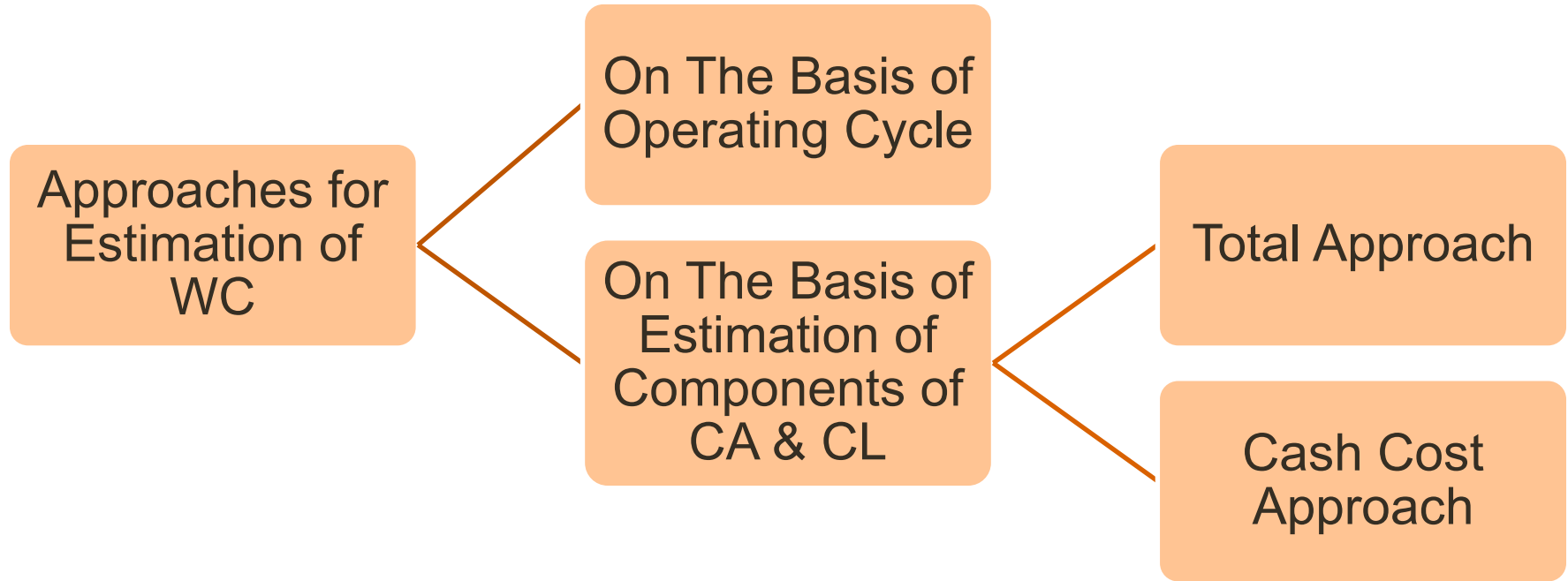
Working capital = Current Assets Less Current Liabilities.

Current Assets are those, which can be converted into cash with a short duration, i.e. generally less than one year. Hence Current Assets = Sum of Inventories, Debtors, Cash and Bank Balances, Prepaid Expenses, Loans and Advances, Marketable Investments.

Current Liabilities are those which fall due for payment or settlement within a short duration, that is generally less than one year. Hence Current Liabilities = Sum of Creditors, Outstanding Expenses, Tax Provisions, Proposed and Unclaimed Dividend, Short Term Loans, Bank Overdraft, Cash Credit.

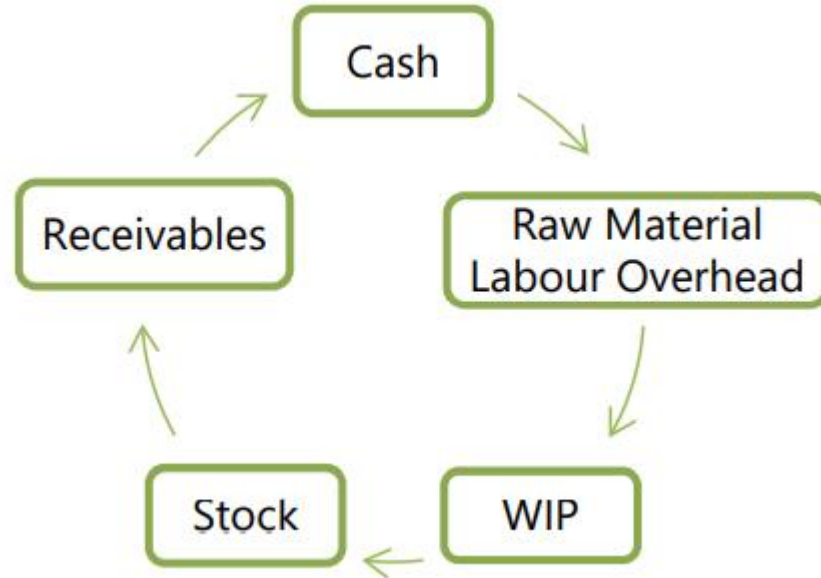


APPROACHES FOR ESTIMATION OF WC REQUIREMENT



OPERATING/WORKING CAPITAL CYCLE

Working Capital Cycle or Cash Cycle or Operating Cycle is the time duration for conversion of cash into cash equivalents like Raw Materials, Work-in-Progress, Finished Goods, and sundry Debtors and thereafter back into cash.



COMPUTATION OF OPERATING CYCLE

$$\text{OPERATING CYCLE} = R + W + F + D - C$$

Where,

R = Raw Material Storage Period

W = Work in Progress Holding Period

F = Finished Goods Storage Period

D = Receivables (Debtors) Collection Period

C = Credit Period Allowed by Suppliers

COMPUTATION OF COMPONENTS OF WC CYCLE

Components	Formula
Raw Materials Storage Period	$\frac{\text{Average Stock Raw Materials}}{\text{Average Cost of RM Consumed per day}}$
WIP Holding Period	$\frac{\text{Average WIP Inventory}}{\text{Average Cost of Production Per Day}}$
Finished Goods Storage Period	$\frac{\text{Average Stock of Finished Goods}}{\text{Average Cost of Goods sold per day}}$
Receivables Collection Period	$\frac{\text{Average Accounts Receivables}}{\text{Average Credit Sale per day}}$
Creditors Payment Period	$\frac{\text{Average Accounts Payable}}{\text{Average Credit Purchase per day}}$

ILLUSTRATION 1

Following information is forecasted by R Limited for the year ending 31st March, 2021:

	Balance as at 31 st March, 2021	Balance as at 31 st March, 2020
	(₹ in lakh)	(₹ in lakh)
Raw Material	65	45
Work-in-progress	51	35
Finished goods	70	60
Receivables	135	112
Payables	71	68

Annual purchases of raw material (all credit)	400	
Annual cost of production	450	
Annual cost of goods sold	525	
Annual operating cost	325	
Annual sales (all credit)	585	

You may take one year as equal to 365 days.

You are required to CALCULATE:

- (i) Net operating cycle period.
- (ii) Number of operating cycles in the year.
- (iii) Amount of working capital requirement.

$$\begin{aligned} 1) \text{ Net Operating cycle Period} &= R + W + F + D - C \\ &= 53 + 35 + 45 + 17 - 63 \\ &= 147 \text{ Days} \end{aligned}$$

$$\begin{aligned} 2) \text{ Number of Operating cycles in a year} &= \frac{365 \text{ Days}}{\text{Net Operating cycle Period}} \\ &= \frac{365}{147} \\ &= 2.48 \text{ times} \end{aligned}$$

$$\begin{aligned}
 \text{3] Amount of working Capital required} &= \frac{\text{Annual Operating Cost}}{\text{No. of Operating Cycles}} \\
 &= \frac{325}{2.48} \\
 &= 131.05 \text{ lakhs}
 \end{aligned}$$

Note:- No. of Days in Decimal are Rounded up for 0.50 or more Rounded down for less than 0.50.

I] Raw material holding period.

$$= \frac{\text{Average Stock of RM}}{\text{Raw material Consumed Per Day}}$$

$$\begin{aligned} \text{Raw material Consumed} &= \frac{\text{OP. Stock} + \text{Purchases} - \text{Closing Stock}}{365 \text{ Days}} \\ \text{Per Day} &= \frac{45 + 400 - 65}{365} \\ &= 1.04 \end{aligned}$$

$$= \frac{(45+65)/2}{1.04}$$

= 52.88 say 53 days.

2] WIP Holding period

$$= \frac{\text{Average WIP}}{\text{Cost of production per Day}}$$

$$= \frac{(35+51) / 2}{450 / 365}$$

$$= \frac{43}{1.23}$$

$$= 34.95 \text{ say } 35 \text{ Days.}$$

$$3 \quad \text{Finished Goods holding period} \\ = \frac{\text{Average stock of FG}}{\text{Costs per Day.}}$$

$$11 \quad \frac{(60 + 70) / 2}{525 / 365}$$

$$11 \quad \frac{65}{1.44}$$

$$11 \quad 45.14 \quad \text{say 45 days.}$$

4] Debtors' Collection Period

$$= \frac{\text{Average Debtors}}{\text{Credit Sales Per Day}}$$

$$= \frac{(112 + 135) / 2}{585 / 365}$$

$$= \frac{123.50}{1.60}$$

$$= 77.19 \text{ Days} \quad \text{say } 77 \text{ Days.}$$

5] Computation of creditors Payment period.

$$= \frac{\text{Average creditors}}{\text{Credit Purchase per Day}}$$

$$= \frac{(68+71)/2}{400/365}$$

$$= \frac{69.50}{1.10}$$

$$= 63.18 \text{ say } 63 \text{ Days.}$$

ILLUSTRATION 2 (PYP JAN 2021) 5 MARKS

The following information is provided by MNP Ltd. for the year ending 31st March, 2020:

<i>Raw Material Storage period</i>	<i>45 days</i>
<i>Work-in-Progress conversion period</i>	<i>20 days</i>
<i>Finished Goods storage period</i>	<i>25 days</i>
<i>Debt Collection period</i>	<i>30 days</i>
<i>Creditors payment period</i>	<i>60 days</i>
<i>Annual Operating Cost</i>	<i>₹ 25,00,000</i>
<i>(Including Depreciation of ₹ 2,50,000)</i>	
<i>Assume 360 days in a year.</i>	

You are required to calculate:

- (i) Operating Cycle period*
- (ii) Number of Operating Cycle in a year.*
- (iii) Amount of working capital required for the company on a cost basis.*
- (iv) The company is a market leader in its product and it has no competitor in the market. Based on a market survey it is planning to discontinue sales on credit and deliver products based on pre-payments in order to reduce its working capital requirement substantially. You are required to compute the reduction in working capital requirement in such a scenario.*

(i) Calculation of Operating Cycle Period:

$$\begin{aligned}\text{Operating Cycle Period} &= R + W + F + D - C \\ &= 45 + 20 + 25 + 30 - 60 = \mathbf{60 \text{ days}}\end{aligned}$$

(ii) Number of Operating Cycle in a Year

$$= \frac{360}{\text{Operating cycle period}} = \frac{360}{60} = \mathbf{6}$$

(iii) Amount of Working Capital Required

$$\begin{aligned}&= \frac{\text{Annual operating cost}}{\text{Number of operating cycl}} = \frac{\text{₹ 25,00,000} - \text{₹ 2,50,000}}{6} \\ &= \frac{\text{₹ 22,50,000}}{6} = \mathbf{\text{₹ 3,75,000}}\end{aligned}$$

(iv) Reduction in Working Capital

$$\begin{aligned}\text{Operating Cycle Period} &= R + W + F - C \\ &= 45 + 20 + 25 - 60 = \mathbf{30 \text{ days}}\end{aligned}$$

$$\text{Amount of Working Capital Required} = \frac{\text{₹ } 22,50,000}{360} \times 30 = \text{₹ } 1,87,500$$

$$\text{Reduction in Working Capital} = \text{₹ } 3,75,000 - \text{₹ } 1,87,500 = \mathbf{\text{₹ } 1,87,500}$$

DETERMINATION OF EACH COMPONENT OF CA AND CL

Component	Total Approach	Cash Cost Approach
Raw Materials	Purchase price net of discount	Purchase price net of discount
Work in Progress	Raw Materials + 50% of (Direct Labour + Direct Expenses + All production overheads)	Raw Materials + 50% of (Direct Labour + Direct Expenses + Production Overheads excluding depreciation)
Finished Goods	Cost production	Cost of production Less Depreciation
Sundry Debtors	Cost of Sales	Cost of Sales Less Depreciation
Sundry Creditors	Purchase price net of discounts	Purchase price net of discounts.

Note – In The Absence of Information , It is Advisable To Solve The Question by Cash Cost Approach.

RAW MATERIAL STOCK CALCULATION

Sentence

Material in hand is of 2 Months consumption.

Interpretation

On an average material required to be consumed for 2 months is in Stock at any given point of time during year.

$$\text{Raw Material Stock} = \frac{\text{Annual Consumption}}{12 \text{ months}} \times 2 \text{ months}$$

Important points

- Raw material is consumed in producing finished goods and it is to be calculated by preparing cost sheet or following formula –
RM Consumed = Opening Stock + Purchase – Closing stock
- In The Absence of Information , Opening Stock of raw Material & Closing Stock of Raw Material is Assumed to be Same.

WIP CALCULATION

Sentence

Production time is 1-month or material remains in process on an average for 1 month.

Raw Material	$= \frac{\text{Annual Consumption}}{12 \text{ months}} \times 1 \text{ Month}$	XXX
Wages	$= \frac{\text{Annual wages}}{12 \text{ months}} \times 1 \text{ Month} \times 50\%$	XXX
Overheads	$= \frac{\text{Annual overheads}}{12 \text{ months}} \times 1 \text{ Month} \times 50\%$	XXX
Total		XXX

Important points

- In above calculation wages and overheads are multiplied by 50% assuming material is charged in initial stage and wages and overheads accrue evenly.
- In case problem gives degree of completion for WIP then taken multiply by that % to raw material, wages as well overheads.
- In The Absence of Information , Opening Stock of WIP & Closing Stock of WIP is Assumed to be Same.

FINISHED GOODS CALCULATION

Sentence

Finished goods Remain in store for 3 months.

Interpretation

3 months cost of production will be the value of finished goods stock.

$$\text{FG Stock} = \frac{\text{Annual cost of } \textit{production}}{12} \times 3 \text{ months}$$

Important Points

- Finished goods may be valued either using FIFO or weighted Average cost, whenever there is opening stock. Write a note to that effect.
- Under cash cost approach depreciation will be excluded from cost of production.
- In The Absence of Information, Opening Stock of Finished Goods & Closing Stock of Finished goods is Assumed to be Same.

RECEIVABLES/DEBTORS CALCULATION

Sentence

Credit period given to Customer is 6 weeks

Interpretation

On an average at any point of time during the year sale of 6 weeks remain outstanding as of Sundry Debtors.

$$\text{Debtors} = \frac{\text{Annual Credit Sales}}{52 \text{ weeks}} \times 6 \text{ weeks}$$

Assumption: It is assumed that sales take place evenly throughout the year.

Important Points

- Sundry debtors are to be valued at Cost of Sales. If Cost of Sales is Not Available It May be valued at Sales.
- Under Cash cost approach debtors have to be valued at cost of sales (Excluding Depreciation) Compulsorily.

PREPAID EXPENSES CALCULATION

Sentence

Expenses are paid quarterly in advance.

Interpretation

Expenditure of April is paid in Jan. expenses of May is paid in Feb. This means expenses of 3 months are paid in advance.

$$\text{Prepaid Expenses} = \frac{\text{Annual Expenses}}{12 \text{ months}} \times 3 \text{ months}$$

CREDITORS CALCULATION

Sentence

Supplier gives 2 months credit.

Interpretation

Amount of creditors, will be equal to purchases of 2 months.

$$\text{Creditors} = \frac{\text{Annual Purchases}}{12 \text{ months}} \times 2 \text{ months}$$

Important Points

- If opening and closing stock is same then consumption and purchases are same.
- For New Company opening stock of RM is zero and hence we have to calculate purchases separately using consumption formula.

OUTSTANDING WAGES CALCULATION

Sentence

Lag in payment of wages is 30 days

OR

Wages are in arrears (outstanding) for month.

Purchase
↓
500

New co :
Closing
stock
200

RM Consumed =

Interpretation

Wages of Jan.1 are paid after 30 days. i.e. Jan. 30 wages of Jan.2 are paid of Feb. 2 wages of Jan.10 are paid after 30 days i.e. 10 Feb. This means wages of 30 days are outstanding at any point of time.

$$\text{Outstanding wages} = \frac{\text{Annual wages}}{360 \text{ Days}} \times 30 \text{ days}$$

$$0 + 500 - 200 = \underline{\underline{300}}$$

STATEMENT SHOWING ESTIMATION OF WC

Sr.No	Particulars	Calculation	Amount (RS)
A	Current Assets		
(i)	Raw Material		
(ii)	Work –in – process		
(iii)	Finished goods		
(iv)	Trade Receivables/Debtors		
(v)	Prepaid Expenses		
(vi)	Minimum Cash Balance		
	Total (A)		---
B	Current Liabilities		
(i)	Trade payables/Creditors		
(ii)	Wages payables		
(iii)	Overheads payable		
	Total (B)		---
C	Excess of current Assets over Current Liabilities (A-B)		---
D	Safety Margin		---
E	Net working capital (C+D)		---

IMPORTANT POINTS

- If opening stock of raw material and closing stock of raw material are assumed as same then, raw material purchased = raw material consumed. If company is new company the opening stock is zero and RM purchased is not same as raw material consumed.
- If nothing is given about production pattern it is assumed that material is issued at beginning of production process and wages and overheads accrue evenly throughout period.
- Whenever working capital is required on cash cost basis, depreciation and profit are excluded. Due to this inventory (WIP as well as FG) will be valued excluding depreciation. Debtors under cash cost approach will be valued at cost of sales.
- If break-up of overheads is not given in exam, then assume that overheads as factory overheads.
- While preparing cost sheet if fixed overheads are given on per unit basis, then first calculate total fixed overheads at given level of production.
- Total fixed overheads remain same, whereas fixed overheads/ unit decrease with increase in output.

ILLUSTRATION 3

Aneja Limited, a newly formed company, has applied to a commercial bank for the first time for financing its working capital requirements. The following information is available about the projections for the current year:

Estimated level of activity: 1,04,000 completed units of production plus 4,000 units of work-in-progress. Based on the above activity, estimated cost per unit is:

Raw material	₹ 80 per unit
Direct wages	₹ 30 per unit
Overheads (exclusive of depreciation)	<u>₹ 60 per unit</u>
Total cost	<u>₹ 170 per unit</u>
Selling price	<u>₹ 200 per unit</u>

Raw materials in stock: Average 4 weeks consumption, work-in-progress (assume 50% completion stage in respect of conversion cost) (materials issued at the start of the processing).

Finished goods in stock	8,000 units
Credit allowed by suppliers	Average 4 weeks
Credit allowed to debtors/receivables	Average 8 weeks
Lag in payment of wages	Average 1.5 weeks

Cash at banks (for smooth operation) is expected to be ₹ 25,000.

Assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only.

You are required to CALCULATE the net working capital required.

Statement Showing Requirement of Working Capital

Sr.No	Particulars	Calculation	Amount
<u>A]</u>	<u>Current Assets</u>		
1	Raw material holding	$\frac{(104000 + 4000) \times 80 \times 4 \text{ weeks.}}{52 \text{ weeks}}$	664615
2	WIP Holding	$4000 \text{ units} \times (80 + 15 + 30)$	500000
3	FG Holding	$8000 \text{ units} \times 170$	1360000
4	Debtors	$\frac{96000 \text{ units} \times 170 \times 8 \text{ weeks.}}{52 \text{ weeks}}$	2510769
5	Cash	Given	25000

Total (A)

5060384

B] Current liabilities

1 Creditors -

$$\frac{9304615}{52 \text{ weeks}} \times 4 \text{ weeks}$$

715740

2 Wages

$$\frac{(104000 \times 36) + (4000 \times 30 \times 52)}{52 \text{ weeks}} \times 1.5$$

91731

Total (B)

807471

C] WIC required
(A-B)

4252913

Note: - In the Absence of information Debtors are valued at Cost of Sales.

WIN 1 - Ascertainment Of Purchases.

$$\begin{array}{l} \text{Raw material} \\ \text{Consumed} \end{array} = \begin{array}{l} \text{Opening} \\ \text{Stock} \\ \text{of RM} \end{array} + \begin{array}{l} \text{Purchases} \\ \text{of} \\ \text{RM} \end{array} - \begin{array}{l} \text{closing} \\ \text{Stock} \\ \text{of} \\ \text{RM} \end{array}$$

$$8640000 = 0 + \text{Purchase} - 664615$$

$$\therefore \text{Purchase} = 9304615$$

ILLUSTRATION 4

The management of Trux Company Ltd. is planning to expand its business and consults you to prepare an estimated working capital statement. The records of the company reveals the following annual information:

	(₹)
Sales – Domestic at one month's credit	18,00,000
Export at three month's credit (sales price 10% below domestic price)	8,10,000
Materials used (suppliers extend two months credit)	6,75,000
Lag in payment of wages – ½ month	5,40,000
Lag in payment of manufacturing expenses (cash) – 1 month	7,65,000
Lag in payment of Administration Expenses – 1 month	1,80,000
Selling expenses payable quarterly in advance	1,12,500
Income tax payable in four installments, of which one falls in the next financial year	1,68,000

Rate of gross profit is 20%. Ignore work-in-progress and depreciation.

The company keeps one month's stock of raw materials and finished goods (each) and believes in keeping ₹ 2,50,000 available to it including the overdraft limit of ₹ 75,000 not yet utilized by the company.

The management is also of the opinion to make 10% margin for contingencies on computed figure.

You are required to PREPARE the estimated working capital statement for the next year.

Statement Showing Requirement of Working Capital

Sr.No	Particulars	Calculation	Amount
A	Current Assets		
i)	Raw Material	$675000/12 \text{ Months} * 1 \text{ Month}$	56250
ii)	Finished Goods	$2160000/12 \text{ Months} * 1 \text{ Month}$	180000
iii)	Debtors (Domestic)	$1517586/12 \text{ Months} * 1 \text{ Month}$	126466
iv)	Debtors (Export)	$754914/12 \text{ Months} * 3 \text{ Months}$	188729
V)	Advance Selling Expenses	$112500/12 \text{ Months} * 3 \text{ Months}$	28125
vi)	Cash	Given	250000
		Total	829570
B	Current liabilities		
i)	Creditors	$675000/12 \text{ months} * 2 \text{ Months}$	112500
ii)	Wages	$540000/12 \text{ Months} * .50 \text{ Months}$	22500

iii)	Manufacturing Expenses	$765000/12 \text{ months} * 1 \text{ Months}$	63750
iv)	Administration Expenses	$180000/12 \text{ months} * 1 \text{ Month}$	15000
V)	Tax payable	25% of 168000	42000
Vi)	Overdraft	Given	75000
		Total	330750
C	WC Required (A-B)		498820
D	Contingency @ 10%		49882
E	Net WC Required		548702

Notes

1. In the Absence of Information Debtors are Valued at Cost of Sales
2. In the Absence of Information , Administration Expenses are Considered as a part of Cost of goods Sold

Let the Selling Price of Goods in Domestic Market be 100

GP margin = 20% $\therefore$ Cost = 80

Selling Price of Export Good = 90
Cost = 80

GP = 10 GP margin
= $100 / 90 \times 100$
= 11.11%

WN 1 – Calculation of Gross Profit on Export Sales

Let the Selling price of unit sold in Domestic market be 100

G.P. margin = 20% (given)

∴ Cost of product = $100 - 20\% = 80$

Selling price of unit sold in Export market = $100 - 10\% = 90$

Cost of product = 80

∴ Gross Profit = $90 - 80 = 10$

G.P. margin = $10 / 90 \times 100 = 11.11\%$

WN 2 – Ascertainment of COGS & Cost of Sales Of Domestic & Export Sales

Sr.No	Particulars	Domestic Sales	Export Sales	Total
A	Sales	1800000	810000	2610000
B	less: GP margin	20%	11.11%	-
C	COGS	1440000	720000	2160000
D	Add: Selling Exp	77586	34914	112500
E	Cost of Sales	1517586	754914	2272500

WN 3 – Apportionment of Selling Expenses Between Domestic Sales & Export Sales

$$\text{Domestic Sales} = \frac{112500}{261000} \times 180000 = 77586$$

$$\text{Export Sales} = \frac{112500}{261000} \times 81000 = 34914$$

ILLUSTRATION 5

The following annual figures relate to XYZ Co.:

	(₹)
<i>Sales (at two months' credit)</i>	<i>36,00,000</i>
<i>Materials consumed (suppliers extend two months' credit)</i>	<i>9,00,000</i>
<i>Wages paid (1 month lag in payment)</i>	<i>7,20,000</i>
<i>Cash manufacturing expenses (expenses are paid one month in arrear)</i>	<i>9,60,000</i>
<i>Administrative expenses (1 month lag in payment)</i>	<i>2,40,000</i>
<i>Sales promotion expenses (paid quarterly in advance)</i>	<i>1,20,000</i>

The company sells its products on gross profit of 25%. Depreciation is considered as a part of the cost of production. It keeps one month's stock each of raw materials and finished goods, and a cash balance of ₹ 1,00,000.

Assuming a 20% safety margin, COMPUTE the working capital requirements of the company on cash cost basis. Ignore work-in-process.

Statement Showing Requirement of Working Capital on Cash Cost Basis

Sr.No	Particulars	Calculation	Amount
A <u>Current Assets</u>			
1	Raw material holding	$\frac{\text{RM } 90000}{12 \text{ months}} \times 1 \text{ month}$	75000
2	Finish goods Holding	$\frac{(\text{RM } 90000 + \text{W } 72000 + \text{RM } 96000) \times 1 \text{ month}}{12 \text{ months}}$	215000
3	Debtors	$\frac{(\text{RM } 90000 + \text{W } 72000 + \text{RM } 96000 + \text{admin } 24000 + \text{SF } 12000)}{12 \text{ months}} \times 2 \text{ months}$	490000
4	Sales promotion Exp	$\frac{120000}{12 \text{ months}} \times 3 \text{ months}$	30000

5 Cash
total (A)

given

100 000
910 000

B Current Liabilities
1 creditors-

900 000 X 2 months
12 months

150 000

2 wages

720 000 X 1 month
12 months

60 000

3 manufacturing exp

960 000 X 1 month
12 months

80 000

4 Administration exp
Total (B)

240 000 X 1 month
12 months

20 000
310 000

C WC required
(A - B)

600 000

D Add- 20% safety margin-

120 000

G Net h/c resources

720 000

WN 1 – Cost Sheet of Company

Sr.No	Particulars	Amount
A	Raw material Consumed	90000
B	Wages	72000
C	Cash manufacturing EXP	96000
D	Cash Cost	258000
E	Add - Administration EXP	24000
F	Add - Selling EXP	12000
G	Cash cost of Sales	294000

ILLUSTRATION 6 (RTP NOV 2019)

Following are cost information of KG Ltd., which has commenced a new project for an annual production of 24,000 units which is the full capacity:

	Costs per unit (₹)
Materials	80.00
Direct labour and variable expenses	40.00
Fixed manufacturing expenses	12.00
Depreciation	20.00
Fixed administration expenses	8.00
	160.00

The selling price per unit is expected to be ₹192 and the selling expenses ₹10 per unit, 80% of which is variable.

In the first two years of operations, production and sales are expected to be as follows:

Year	Production (No. of units)	Sales (No. of units)
1	12,000	10,000
2	18,000	17,000

To assess the working capital requirements, the following additional information is available:

- (a) Stock of materials 2 months' average consumption
- (b) Work-in-process Nil
- (c) Debtors 2 month's average sales.
- (d) Cash balance ₹ 1,00,000

- (e) Creditors for supply of 1 month's average purchase during the year.
materials
- (f) Creditors for expenses 1 month's average of all expenses during the year.

PREPARE, for the two years:

- (i) A projected statement of Profit/Loss (Ignoring taxation); and
- (ii) A projected statement of working capital requirements

Projected Statement of Profit / Loss

Sr.No	Particulars	Year 1	Year 2
A	Production (Units)	12000	18000
B	Sales (Units)	10000	17000
1	Material @ 80 Per Unit	960000	1440000
2	Direct Labour & Variable Expenses @ 40 P.u	480000	720000
3	Fixed Manufacturing Expenses (24000*12)	* 288000	288000
4	Depreciation (24000*20)	480000	480000
5	Fixed Administration Expenses (24000*8)	* 192000	192000
6	Total Cost of production (1+2+3+4+5)	2400000	3120000
7	Add - Opening Stock of FG		400000

Sr.No	Particulars	Year 1	Year 2
8	Less - Closing Stock of FG	400000	528000
		(2400000/12000*2000)	(WN 1)
9	Cost of Goods Sold (6+7-8)	2000000	2992000
10	Selling Expenses - Fixed (240000*2)	* 48000	48000
11	Selling Expenses - Variable	80000	136000
		(10000*8)	(17000*8)
12	Cost of Sales (9+10+11)	2128000	3176000
13	Profit (Bal Fig)	-208000	88000
14	Sales	1920000	3264000
		(10000*192)	(17000*192)

Statement Showing Computation of WC

Sr.No	Particulars	Year 1	Year 2
A	CURRENT ASSETS		
1	Raw Material	160000	240000
		(960000/12*2)	(1440000/12*2)
2	WIP	-	-
3	Finished goods	400000	528000
4	Debtors	320000	544000
		(1920000/12*2)	(3264000/12*2)
5	Cash	100000	100000
	Total (A)	980000	1412000

B	CURRENT LIABILITIES		
1	Creditors	93333	126667
		$(1120000/12*1)$	$(1520000/12*1)$
2	Creditors for Expenses	90667	115333
		$(1088000/12*1)$	$(1384000/12*1)$
	Total (B)	184000	242000
C	Working Capital Required (A-B)	796000	1170000

WN 1 – Ascertainment of Value of Closing Stock For Year 2

Value of Closing Stock On Weighted Average Cost = $(400000 + 3120000) / (2000 + 18000) \times 3000$

Value of Closing Stock On Weighted Average Cost = **528000**

WN 2 – Ascertainment of Value of Purchase for year 1 & year 2

Year 1

Raw Material Consumed = Opening Stock + Purchases - Closing Stock

960000 = 0 + Purchases - **160000**

960000 + **160000** = Purchases

Purchases = **1120000**

Year 2

Raw Material Consumed = Opening Stock + Purchases - Closing Stock

1440000 = **160000** + Purchases - **240000**

1440000 - **160000** + **240000** = Purchases

Purchases = **1520000**

$$\begin{array}{r} 400000 + 3120000 \\ \hline 2000 + 18000 \\ \hline = 176 \times 3000 \\ = 528000 \end{array}$$

WN 3 – Ascertainment of Total Expenses for year 1 & year 2

Sr.No	Particulars	Year 1	Year 2
A	Direct Labour & variable Expenses	480000	720000
B	Fixed manufacturing Expenses	288000	288000
C	Fixed Administration Expenses	192000	192000
D	Selling Expenses – Variable	80000	136000
E	Selling Expenses – Fixed	48000	48000
	Total	1088000	1384000

ILLUSTRATION 7 (PYP MAY 2019) 10 MARKS

Bitu Limited manufactures used in the steel industry. The following information regarding the company is given for your consideration:

- (i) Expected level of production 9000 units per annum.*
- (ii) Raw materials are expected to remain in store for an average of two months before issue to production.*
- (iii) Work-in-progress (50 percent complete as to conversion cost) will approximate to 1/2 month's production.*
- (iv) Finished goods remain in warehouse on an average for one month.*
- (v) Credit allowed by suppliers is one month.*
- (vi) Two month's credit is normally allowed to debtors.*
- (vii) A minimum cash balance of ₹ 67,500 is expected to be maintained.*
- (viii) Cash sales are 75 percent less than the credit sales.*

- (ix) Safety margin of 20 percent to cover unforeseen contingencies.
- (x) The production pattern is assumed to be even during the year.
- (xi) The cost structure for Bitra Limited's product is as follows:

	₹
Raw Materials	80 per unit
Direct Labour	20 per unit
Overheads (including depreciation ₹ 20)	<u>80</u> per unit
Total Cost	<u>180</u> per unit
Profit	20 per unit
Selling Price	<u>200</u> per unit

You are required to estimate the working capital requirement of Bitra limited.

Statement Showing Computation of WC

Sr.No	Particulars	Calculation	Amount
A	Current Assets		
I	Raw Material	$720000/12*2$	120000
II	WIP	$1080000/12*0.50$	45000
III	Finished Goods	$1440000/12*1$	120000
IV	Debtors	$1152000/12*2$	192000
V	Cash		67500
	Total (A)		544500
B	Current Liabilities		
I	Creditors	$720000/12*1$	60000
	Total (B)		60000

C	Working Capital Required		484500
	(A-B)		
D	Add – Safety Margin 20%		96900
E	Net WC Required (C+D)		581400

Note – In The Absence of Information WIP , FG & Debtors are Valued on Cash Cost Basis

FN N1 - Ascertainment of Cash Cost of Debtors.

Total Sales = Cash Sales + Credit Sales.

Let the Credit Sales be x

$$9000 \times 160 = 0.25x + x$$

$$1440000 = 1.25x$$

$$x = \underline{\underline{1152000}}$$

ILLUSTRATION 8 (RTP MAY 2021)

While applying for financing of working capital requirements to a commercial bank, TN Industries Ltd. projected the following information for the next year:

Cost Element	Per unit (₹)	Per unit (₹)
Raw materials		
X	30	43 + 25 + 20
Y	7	
Z	6	
Direct Labour		25
Manufacturing and administration overheads (excluding depreciation)		20

Depreciation		10
Selling overheads		15
		113

Additional Information:

- Raw Materials are purchased from different suppliers leading to different credit period allowed as follows:
X – 2 months; Y – 1 months; Z – $\frac{1}{2}$ month
- Production cycle is of $\frac{1}{2}$ month. Production process requires full unit of X and Y in the beginning of the production. Z is required only to the extent of half unit in the beginning and the remaining half unit is needed at a uniform rate during the production process.
- X is required to be stored for 2 months and other materials for 1 month.

- (d) Finished goods are held for 1 month.
- (e) 25% of the total sales is on cash basis and remaining on credit basis. The credit allowed by debtors is 2 months.
- (f) Average time lag in payment of all overheads is 1 months and $\frac{1}{2}$ months for direct labour.
- (g) Minimum cash balance of ₹ 8,00,000 is to be maintained.

CALCULATE the estimated working capital required by the company on cash cost basis if the budgeted level of activity is 1,50,000 units for the next year. The company also intends to increase the estimated working capital requirement by 10% to meet the contingencies. (You may assume that production is carried on evenly throughout the year and direct labour and other overheads accrue similarly.)

Statement Showing Requirement of Working Capital

Sr.No	Particulars	Calculation	Amount
(A)	Current Assets-		
1	<u>RMg Holding</u>		
	7	$150000 \times 30 / 12 \times 2$	750000
	7	$150000 \times 7 / 12 \times 1$	87500
	2	$150000 \times 6 / 12 \times 1$	75000
2	WIP holding	$150000 \times 64 / 12 \times 0.50$	400000
3	FG Holding	$150000 \times \frac{88}{12} \times 1$	1100000

4	Debtors	$(150000 \times 103) \times 75\% \times 2$	1931250
		12	
5	Cash	given	800000
	Total CA)		<u>5143750</u>

B
1

Current Liabilities

Creditors

1

$$\frac{150000 \times 30}{12} \times 2 \text{ months} = 75000$$

1

$$\frac{150000 \times 7}{12} \times 1 \text{ month} = 87500$$

2

$$\frac{150000 \times 6}{12} \times 0.5 \text{ month} = 37500$$

2	Direct Labour	$\frac{150000 \times 25}{12 \text{ months}} \times 0.5 \text{ month}$	156250
3	Overheads	$\frac{150000 \times 35}{12 \text{ months}} \times 1 \text{ month}$	437500
	Total (B)		<u>1468750</u>
C	INC required (A-B)		3675000
D	Add. Safety margin 10%		367500
E	Net inc required		4042500

W.N. 1 Ascertainment of WIP Cost per Unit

Sr. No	Particulars	Amt
A	<u>Material</u> X Y * Z (3 + 50% of 3)	30 7 <u>45</u>
B	Direct labour (25 x 50%)	12.50
C	Overheads (20 x 50%)	10
D	WIP Cost per Unit (A+B+C)	<u>64</u>

ILLUSTRATION 9

The following annual figures relate to manufacturing entity:

- | | | |
|----|---|--------------------|
| A. | Sales at one month credit | 84,00,000 |
| B. | Material consumption | 60% of sales value |
| C. | Wages (paid in a lag of 15 days) | 12,00,000 |
| D. | Cash Manufacturing Expenses | 3,00,000 |
| E. | Administrative Expenses | 2,40,000 |
| F. | Creditors extend 3 months credit for payment. | |
| G. | Cash manufacturing and administrative expenses are paid 1 months in arrear. | |

The company maintains stock of raw material equal to economic order quantity. The company incurs ₹ 100 as per ordering cost per order and opportunity cost of capital is 15% p.a. The optimum cash balance is determined using Baumol's model. The bank charges ₹ 10 for each cash withdrawal. Finished goods are held in stock for 1 month. The company maintains a bank balance of ₹12,00,000 on an average. Creditors are paid through net banking and all other expenses are incurred in cash which is withdrawn from bank.

Assuming a 20% safety margin, you are required to ESTIMATE the amount of working capital that needs to be invested by the Company.

RM Holding } Baumol
Cash Holding } model.

Statement Showing Computation of WC

Sr.No	Particulars	Calculation	Amount
A	Current Assets		
I	Raw Material	WN 2	81975
II	Finished Goods	$6540000/12*1$	545000
III	Debtors	$6780000/12*1$	565000
IV	Bank Balance	Given	1200000
V	Cash	WN 3	15232
	Total (A)		2407207
B	Current Liabilities		
I	Creditors	$5040000/12*3$	1260000
II	Wages	$1200000/12*0.50$	50000

III	Cash Manufacturing Exp	$300000/12 \times 1$	25000
IV	Administration Expenses	$240000/12 \times 1$	20000
	Total (B)		1355000
C	Working Capital Required		1052207
	(A-B)		
D	Add – Safety Margin 20%		210441
E	Net WC Required (C+D)		1262648

WN 1 – Ascertainment of Cash Cost of production & Cash Cost of Sales

Sr.No	Particulars	Amount
A	Raw Material Consumed ($8400000 \times 60\%$)	5040000
B	Wages	1200000
C	Manufacturing Overheads	300000
D	Cash Cost of Production (A+B+C)	6540000
E	Administration Expenses	240000
F	Cash Cost of Sales (D+E)	6780000

WN 2 – Computation of Raw Material Stock in Hand

$$A = 50,40,000$$

$$B = 100$$

$$C = 0.15$$

$$\therefore \text{EOQ} = \sqrt{\frac{2AB}{C}} = \sqrt{\frac{2 \times 50,40,000 \times 100}{0.15}} = ₹ 81,975$$

WN 3 – Calculation of Cash Balance

$$A = 12,00,000 + 3,00,000 + 2,40,000$$

$$A = 17,40,000$$

$$B = 10$$

$$C = 0.15$$

$$\text{Optimal Cash Balance} = \sqrt{\frac{2AB}{C}} = \sqrt{\frac{2 \times 17,40,000 \times 10}{0.15}} = ₹ 15,232$$

IMPACT OF DOUBLE SHIFT WORKING ON WC

Working Double Shift leads to economies of scale due to greater use of fixed assets. As a firm increases the number of production hours, working capital requirements also increase. But the increase in the working capital may not be directly proportional.

The impact of double shift working on various components of Working Capital is as under-

Item	Effect on Quantity	Effect on Rate
Raw Materials	Stock requirements may double since consumption per day will be twice as earlier.	Due to bulk purchasing, the Firm may be able to avail quantity discounts. Hence, average cost per unit of Raw Material may be reduced.
Work- in- Progress	There will be no change in the quantity of WIP, since work commenced in the first shift will be completed in the second shift. Hence, at the end of any day, the quantity of WIP will remain the same as it was in single shift working.	Due to reduction in Raw Material cost and economies of fixed costs, the average cost per unit of WIP may be reduced.
Finished Goods	Due to greater production, Finished Goods Stocks may double in quantity.	Cost of production per unit will be reduced, due to lower cost of materials and economies of fixed costs per unit.
Sundry Debtors	Increase in demand and increased sales will lead to higher amount of Debtors, for the same credit period. In case of reduction in credit period, the increase may not be proportional or double.	Selling Price per unit may be reduced on account of price elasticity of demand. Additional quantities could be sold only by reducing the price.
Sundry Creditors	Raw Materials purchase quantity and Creditors bill quantity may double, subject to credit period remaining constant. In case of extended credit periods, Creditors may increase more than proportionately or double.	Due to bulk purchasing and better bargaining power, the Firm may obtain discounts. Hence, amount payable per unit of purchase stands reduced.

Note - Generally, the quantity of all items except WIP may be doubled, unless other indications are available in the question.

ILLUSTRATION 10

Samreen Enterprises has been operating its manufacturing facilities till 31.3.2021 on a single shift working with the following cost structure:

	<i>Per unit (₹)</i>
<i>Cost of Materials</i>	<i>6.00</i>
<i>Wages (out of which 40% fixed)</i>	<i>5.00</i>
<i>Overheads (out of which 80% fixed)</i>	<i>5.00</i>
<i>Profit</i>	<i><u>2.00</u></i>
<i>Selling Price</i>	<i><u>18.00</u></i>
<i>Sales during 2020-21 – ₹ 4,32,000</i>	

As at 31.3.2021 the company held:

	(₹)
<i>Stock of raw materials (at cost)</i>	<i>36,000</i>
<i>Work-in-progress (valued at prime cost)</i>	<i>22,000</i>
<i>Finished goods (valued at total cost)</i>	<i>72,000</i>
<i>Sundry debtors</i>	<i>1,08,000</i>

In view of increased market demand, it is proposed to double production by working an extra shift. It is expected that a 10% discount will be available from suppliers of raw materials in view of increased volume of business. Selling price will remain the same. The credit period allowed to customers will remain unaltered. Credit availed of from suppliers will continue to remain at the present level i.e., 2 months. Lag in payment of wages and expenses will continue to remain half a month.

You are required to PREPARE the additional working capital requirements, if the policy to increase output is implemented.

Statement Showing Requirement of WC Under Single Shift and Double Shift							
SR.No	Particulars	Single Shift			Double Shift		
		Unit	Per Unit	Total	Unit	Per Unit	Total
A	<u>Current Assets</u>						
1	Raw Material	*6000	6	36000	12000	5.4	64800
2	WIP	*2000	11	22000	2000	9.4	18800
3	Finished Goods	*4500	16	72000	9000	12.4	111600
4	Debtors	6000	16	* 96000	12000	12.4	148800
	TOTAL (A)			226000			344000

STATEMENT SHOWING REQUIREMENT OF WC UNDER SINGLE SHIFT AND DOUBLE SHIFT			
SR.NO	PARTICULARS	SINGLE SHIFT	DOUBLE SHIFT
B	CURRENT LIABILITIES		
1	CREDITORS	24000 (144000/12*2)	43200 (259200/12*2)
2	WAGES	5000 (120000/12*0.50)	8000 (192000/12*0.50)
3	OVERHEADS	5000 (120000/12*0.50)	6000 (144000/12*0.50)
	TOTAL (B)	34000	57200
C	NET WORKING CAPITAL	192000	286800
INCREASE IN WC = 286800-192000 = 94800			

WN -1 COST SHEET OF COMPANY					
SR.NO	PARTICULARS	24000 UNITS		48000 UNITS	
		PER UNIT	TOTAL	PER UNIT	TOTAL
A	RAW MATERIAL	6	144000	5.4	259200
B	<u>WAGES</u>				
	FIXED	2	48000	*1	48000
	VARIABLE	3	72000	3	144000
C	PRIME COST (A+B)	11	264000	9.4	451200
D	<u>OVERHEADS</u>				
	FIXED	4	96000	*2	96000
	VARIABLE	1	24000	1	48000
E	COST OF PRODUCTION (C+D)	16	384000	12.4	595200
F	PROFIT	*2	*48000	*5.60	*268800
G	SALES	18	432000	18	864000

MAXIMUM PERMISSIBLE BANK FINANCE (MPBF)

TONDON COMMITTEE

- I. The borrower has to contribute a minimum of 25% of working capital gap from long term funds.

MPBF = 75% of [current assets less current liabilities] i.e. 75% of Net Working Capital

- II. The borrower has to contribute a minimum of 25% of the total current assets from long term funds.

MPBF = 75% of current assets Less current liabilities

- III. The borrower has to contribute the entire hard core current assets and a minimum of 25% of the balance of the current assets from long term funds.

MPBF = 75% Of (Total Current Assets – Core Current Assets) less current liabilities

Core current assets is permanent component of current assets which is required throughout the year for a company to run continuously and to stay viable. The term `core current assets' was framed by Tandon committee while explaining the amount of stock a company can hold in its current assets. Generally, such assets are financed by long term funds. Sometimes core current assets are also referred to as "Hardcore Working Capital."

ILLUSTRATION 11

Balance sheet of X Ltd for the year ended 31st March, 2022 is given below:

Liabilities	Amount	Assets	Amount
<i>Equity Shares ₹ 10 each</i>	<i>200</i>	<i>Fixed Assets</i>	<i>500</i>
<i>Retained earnings</i>	<i>200</i>	<i>Raw materials</i>	<i>150</i>
<i>11% Debentures</i>	<i>300</i>	<i>W.I.P</i>	<i>100</i>
<i>Public deposits (Short-Term)</i>	<i>100</i>	<i>Finished goods</i>	<i>50</i>
<i>Trade Creditors</i>	<i>80</i>	<i>Debtors</i>	<i>125</i>
<i>Bills Payable</i>	<i>100</i>	<i>Cash/Bank</i>	<i>55</i>
	980		980

Calculate the amount of maximum permissible bank finance under three methods as per Tandon Committee lending norms.

The total core current assets are assumed to be ₹ 30 lakhs.

Method I

$$\begin{aligned}\text{Maximum Permissible Bank Finance} &= 75\% \text{ of (Current Assets – Current Liabilities)} \\ &= 75\% \text{ of } (480 - 280) \\ &= \text{₹ 150 Lakhs}\end{aligned}$$

Method II

$$\begin{aligned}\text{Maximum Permissible Bank Finance} &= 75\% \text{ of Current Assets – Current Liabilities} \\ &= 75\% \text{ of } 480 - 280 \\ &= \text{₹ 80 Lakhs}\end{aligned}$$

Method III

$$\begin{aligned}\text{Maximum Permissible Bank Finance} &= 75\% \text{ of (Current Assets – Core Current} \\ &\quad \text{Assets) – Current Liabilities} \\ &= 75\% \text{ of } (480 - 30) - 280 \\ &= \text{₹ 57.5 Lakhs}\end{aligned}$$

MANAGEMENT OF ACCOUNTS RECIEVABLES

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

- ☐ **Meaning & Objective of Receivables Management**
- ☐ **Importance of Receivables Management**
- ☐ **Aspects of Receivables Management**
- ☐ **Cost of Maintaining Receivables**
- ☐ **Factors Determining Credit Policy**
- ☐ **Approaches for Evaluation of Credit policies**
- ☐ **Formulas- Calculation of Opportunity Cost, Debtors Turnover Ratio/ Accounts Receivable Turnover Ratio.**
- ☐ **Important Points**
- ☐ **Problems**
- ☐ **Financing of Receivables**
- ☐ **Innovations in Receivables Management**
- ☐ **Monitoring of Receivables**

APPROACHES FOR EVALUATION OF CREDIT POLICIES

- ☐ Total Approach

- ☐ Incremental Approach

IMPORTANT FORMULAS

Calculation of Opportunity Cost

1] Total cost
2] VC
3] Sales

Formula

$$\text{Opportunity Cost} = \frac{\text{Annual Investment}}{12} \times \text{Credit Period} \times \text{Rate of Opportunity cost}$$

Terms Used

Annual Investment = Annual Variable cost + Annual Fixed Cost that is Cost of Sales

Important Points

Opportunity cost is to be Calculated on Total Cost (Variable Cost + Fixed Cost) or Variable Cost or Sales Whatever option you choose write a note in examination.

IMPORTANT FORMULAS

Debtors Turnover Ratio or A/c Receivables Turnover Ratio

Formula

$$\text{DTR} = \frac{\text{Net Credit Sales}}{\text{Average Account Receivable}}$$

Terms Used

Average Account Receivable = Average Debtors+ Average Bills receivable

Important Points

- DTR indicates Number of times credit sales is as compared to Average Account Receivable.
- Using DTR we can calculate Average Collection Period (ACP)
- Average collection period = $\frac{360\text{days}/12\text{months}/52\text{ weeks}}{\text{Debtors turnover ratio collection period}}$
- Higher the DTR Lower the ACP

IMPORTANT POINTS

- With increase in credit period generally sales go up and vice versa.
- Finance manager has to calculate the opportunity cost of investment in debtors and compare with the net benefit derived from selling the goods on credit basis. Opportunity cost is to be calculated on Total Cost i.e., variable costs + fixed costs. Alternatively, opportunity cost may be calculated on variable cost or sales value.
- Opportunity cost is not calculated on bad debts being a financial expenditure.
- Whenever average collection period is given calculate opportunity cost w.r.t. average collection period and not the credit period offered to the customers.
- Opportunity cost is zero if goods are sold on cash basis as No investment is Made In Debtors even for a day.
- If fixed cost per unit are given in the question identify the production level at which they are given. Fixed cost remains constant in totally and not on per unit basis. If production level increases, then fixed cost per unit comes down.
- In order to increase sales, stock also needs to be increased and opportunity cost should be calculated on such incremental stock. Investment in such incremental stock is assumed for entire year i.e. increased stock levels will be maintained throughout the year. If creditors given some credit period, then opportunity cost be calculated on following amount –
Amount for calculation of opportunity cost = Incremental stock – Increase in creditors.
- If cost data is not given then calculate opportunity cost w.r.t. selling price.

ILLUSTRATION 12

A trader whose current sales are in the region of ₹6 lakhs per annum and an average collection period of 30 days wants to pursue a more liberal policy to improve sales. A study made by a management consultant reveals the following information:-

Credit Policy	Increase in collection period	Increase in sales	Present default anticipated
A	10 days 40	₹ 30,000 6.30 mn	1.5% 9450
B	20 days 50	₹ 48,000 6.48 mn	2% 12960
C	30 days 60	₹ 75,000 6.75 mn	3% 20250
D	45 days 75	₹ 90,000 6.90 mn	4% 27600

The selling price per unit is ₹3. Average cost per unit is ₹2.25 and variable costs per unit are ₹2. The current bad debt loss is 1%. Required return on additional investment is 20%. Assume a 360 days year.

ANALYSE which of the above policies would you recommend for adoption?

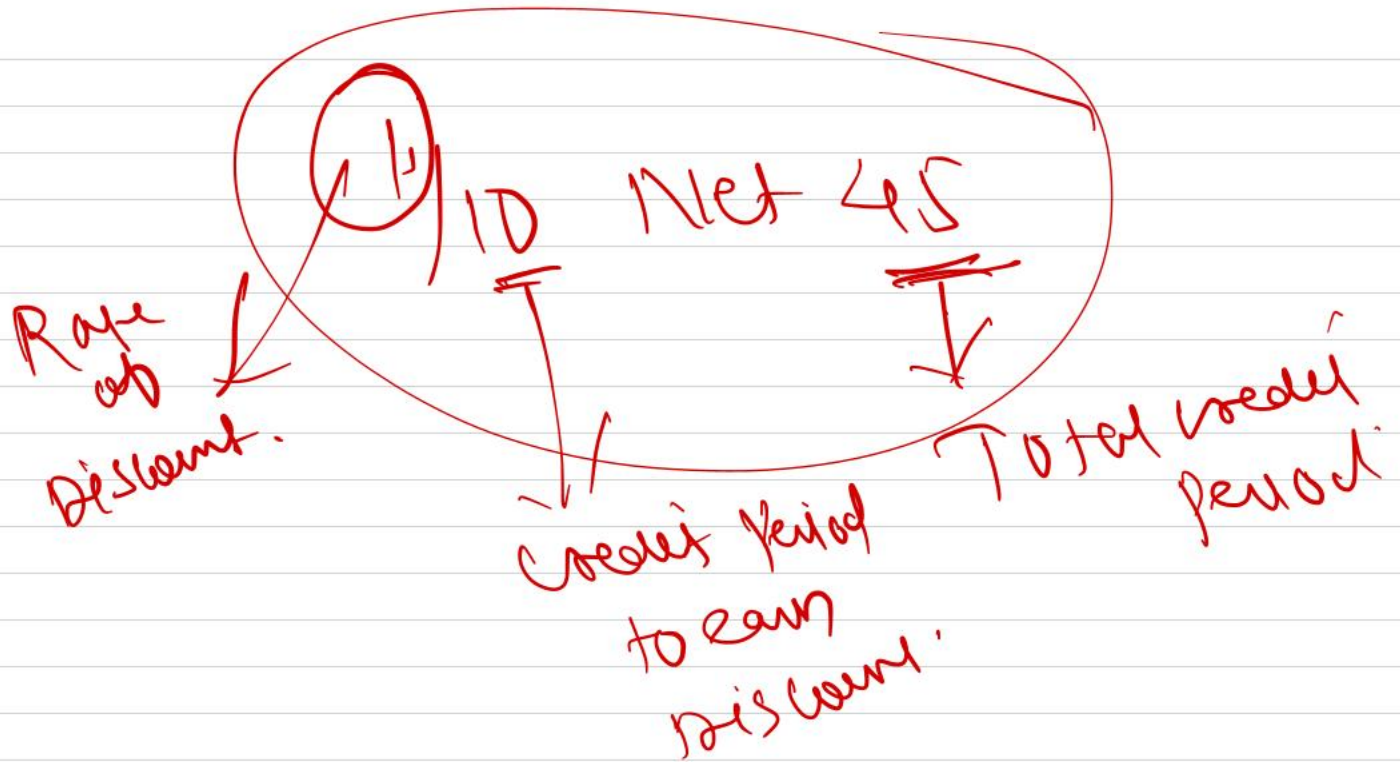
Statement Showing Evaluation of present & Proposed credit Policy (Total Approach)

Sr.No	Particulars	Present Policy	Policy A	Policy B	Policy C	Policy D
A	Credit period (Days)	30	40	50	60	75
B	Sales	600000	630000	648000	675000	690000
C	Selling Price Per Unit	3	3	3	3	3
D	No. of Units Sold (B/C)	200000	210000	216000	225000	230000
E	Variable Cost (D*2)	400000	420000	432000	450000	460000
F	Fixed Cost 200000*(2.25 - 2)	50000	50000	50000	50000	50000
G	Total Cost (E+F)	450000	470000	482000	500000	510000
H	Profit (B-G)	150000	160000	166000	175000	180000
I	Opportunity Cost at 20% (G/360*A)*20%	7500	10444	13389	16667	21250
J	Bad Debts	6000	9450	12960	20250	27600
K	Net Benefit (H-I-J)	136500	140106	139651	138083	131150

ILLUSTRATION 13

A company is presently having credit sales of ₹ 12 lakh. The existing credit terms are 1/10, net 45 days and average collection period is 30 days. The current bad debts loss is 1.5%. In order to accelerate the collection process further as also to increase sales, the company is contemplating liberalization of its existing credit terms to 2/10, net 45 days. It is expected that sales are likely to increase by 1/3 of existing sales, bad debts increase to 2% of sales and average collection period to decline to 20 days. The contribution to sales ratio of the company is 22% and opportunity cost of investment in receivables is 15 percent (pre-tax). 50 per cent and 80 per cent of customers in terms of sales revenue are expected to avail cash discount under existing and liberalization scheme respectively. The tax rate is 30%.

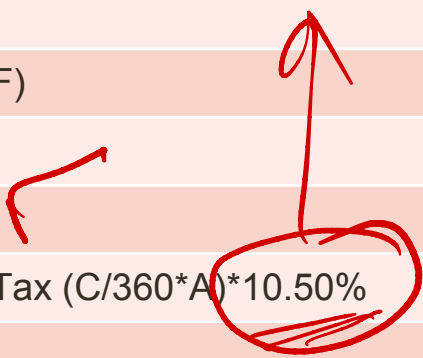
ADVISE, should the company change its credit terms? (Assume 360 days in a year).



Statement Showing Evaluation of Present & Proposed credit Policy (Total Approach)

Sr.No	Particulars	Present Policy	Proposed Policy
A	Average Collection Period	30 Days	20 Days
B	Sales	1200000	1600000
C	Variable Cost (B*78%)	936000	1248000
D	Contribution (B-C)	264000	352000
E	Bad Debts	18000	32000
F	Cash Discount (WN 1)	6000	25600
G	Profit Before Tax (D-E-F)	240000	294400
H	Less – Tax @ 30%	72000	88320
I	Profit After Tax (G-H)	168000	206080
J	Opportunity Cost After Tax (C/360*A)*10.50%	8190	7280
K	Net Benefit (I-J)	159810	198800

15-30%
= 10.50%



WN 1 – Computation of Cash Discount under Present & Proposed Policy

Present Policy = $1200000 * 50\% * 1\% = 6000$

Proposed Policy = $1600000 * 80 * 2\% = 25600$

ILLUSTRATION 14

MN Ltd. has a current turnover of ₹ 30,00,000 p.a. Cost of Sale is 80% of turnover and Bad Debts are 2% of turnover, Cost of Sales includes 70% variable cost and 30% Fixed Cost, while company's required rate of return is 15%. MN Ltd. currently allows 15 days credit to its customer, but it is considering increase this to 45 days credit in order to increase turnover.

It has been estimated that this change in policy will increase turnover by 20%, while Bad Debts will increase by 1%. It is not expected that the policy change will result in an increase in fixed cost and creditors and stock will be unchanged.

Should MN Ltd. introduce the proposed policy? (Assume 360 days year)

Statement Showing Evaluation of Present & Proposed Policy			
Sr.No	Particulars	Present Policy	Proposed Policy
A	Credit period	15 Days	45 Days
B	Sales	3000000	3600000
C	Cost of Sales (80% of B)	2400000	2880000
D	Variable Cost (70% of C)	1680000	2016000
E	Fixed Cost	720000	720000
F	Total Cost (D+E)	2400000	2736000
G	Profit (B-F)	600000	864000
H	Opportunity Cost (F/360*A) *15%	15000	51300
I	Bad Debts	60000	108000
J	Net Benefit (G-H-I)	525000	704700

Note - Investment in Receivables is Based on Total Cost

Conclusion - As per The Above Computation , It is Recommended to Adopt Proposed Policy of Granting Credit period of 45 Days as Net Benefit is higher by 179700

ILLUSTRATION 15

As a part of the strategy to increase sales and profits, the sales manager of a company proposes to sell goods to a group of new customers with 10% risk of non-payment. This group would require one and a half months credit and is likely to increase sales by ₹ 1,00,000 p.a. Production and Selling expenses amount to 80% of sales and the income-tax rate is 50%. The company's minimum required rate of return (after tax) is 25%.

Should the sales manager's proposal be accepted? ANALYSE

Also COMPUTE the degree of risk of non-payment that the company should be willing to assume if the required rate of return (after tax) were (i) 30%, (ii) 40% and (iii) 60%.

Statement Showing Evaluation of Proposed credit Policy (Incremental Approach)

Sr.No	Particulars	Amount
A	Sales	100000
B	Less – Production & Selling Expenses (A*80%)	80000
C	Profit Before Bad Debts & Tax	20000
D	Less – Bad Debts (10% of A)	10000
E	Profit Before tax (C-D)	10000
F	Less – Tax @ 50%	5000
G	Profit After Tax (E-F)	5000
H	Opportunity Cost @25% $(80000/12 \times 1.5) \times 25\%$	2500
I	Net benefit (G-H)	2500

Note:- Investment in receivables is Based on Total Cost.

Conclusion:- As Incremental Net Benefit is 2500
It is Advised to sell goods to new customer
group having risk of 10% of non payment.

Calculation of Degree of Risk of Non payment (Bad Debts)

Sr.No	Particulars	Rate of Return		
		30%	40%	60%
A	Investment in Receivables ($80000/12 \times 1.5$)	10000	10000	10000
B	Profit After Tax ($A \times \text{ROR}$)	3000	4000	6000
C	Profit Before Tax ($B/50\%$)	6000	8000	12000
D	Profit Before Bad Debts (given)	20000	20000	20000
E	Amount of bad Debts ($D - C$)	14000	12000	8000
F	% of Bad Debts	14%	12%	8%

ILLUSTRATION 16

Slow Payers are regular customers of Goods Dealers Ltd. and have approached the sellers for extension of credit facility for enabling them to purchase goods. On an analysis of past performance and on the basis of information supplied, the following pattern of payment schedule emerges in regard to Slow Payers:

Pattern of Payment Schedule	
At the end of 30 days	15% of the bill
At the end of 60 days	34% of the bill
At the end of 90 days	30% of the bill
At the end of 100 days	20% of the bill
Non-recovery	1% of the bill

Slow Payers want to enter into a firm commitment for purchase of goods of ₹ 15 lakhs in 2020-21, deliveries to be made in equal quantities on the first day of each quarter in the calendar year. The price per unit of commodity is ₹ 150 on which a profit of ₹ 5 per unit is expected to be made. It is anticipated by Goods Dealers Ltd., that taking up of this contract would mean an extra recurring expenditure of ₹ 5,000 per annum. If the opportunity cost of funds in the hands of Goods Dealers is 24% per annum, would you as the finance manager of the seller recommend the grant of credit to Slow Payers? ANALYSE. Workings should form part of your answer. Assume year of 365 days.

Statement Showing Evaluation of Proposed credit Policy

Sr.No	Particulars	Amount
A	Sales (Given)	1500000
B	Cost of Sales ($145/150 \times 1500000$)	1450000
C	Profit (A-B)	50000
D	Recurring Expenses Per Annum	5000
E	Bad Debts ($1500000 \times 1\%$)	15000
F	Opportunity Cost of Investment in Receivables (WN 1)	68787
G	Net Benefit (C-D-E-F)	(38787)

Note – Investment in Receivables is Based on Total Cost of 1455000

$$1450000 + 5000 = 1455000$$

W11 Computation of Opportunity Cost.

Investment in machinery = 1450000 + 5000 = 1455000

Credit Period	% of payment	Amount Invested	Calculation of Opportunity Cost	Opp. Cost
30	15%	218250	$218250 / 365 \times 30 \times 24\%$	4305
60	34%	494700	$494700 / 365 \times 60 \times 24\%$	19517
90	36%	436500	$436500 / 365 \times 90 \times 24\%$	25831
100	20%	291000	$291000 / 365 \times 100 \times 24\%$	19134
			Total	<u>68787</u>

FINANCING OF RECEIVABLES

☐ Pledging of Accounts Receivable

☐ Factoring

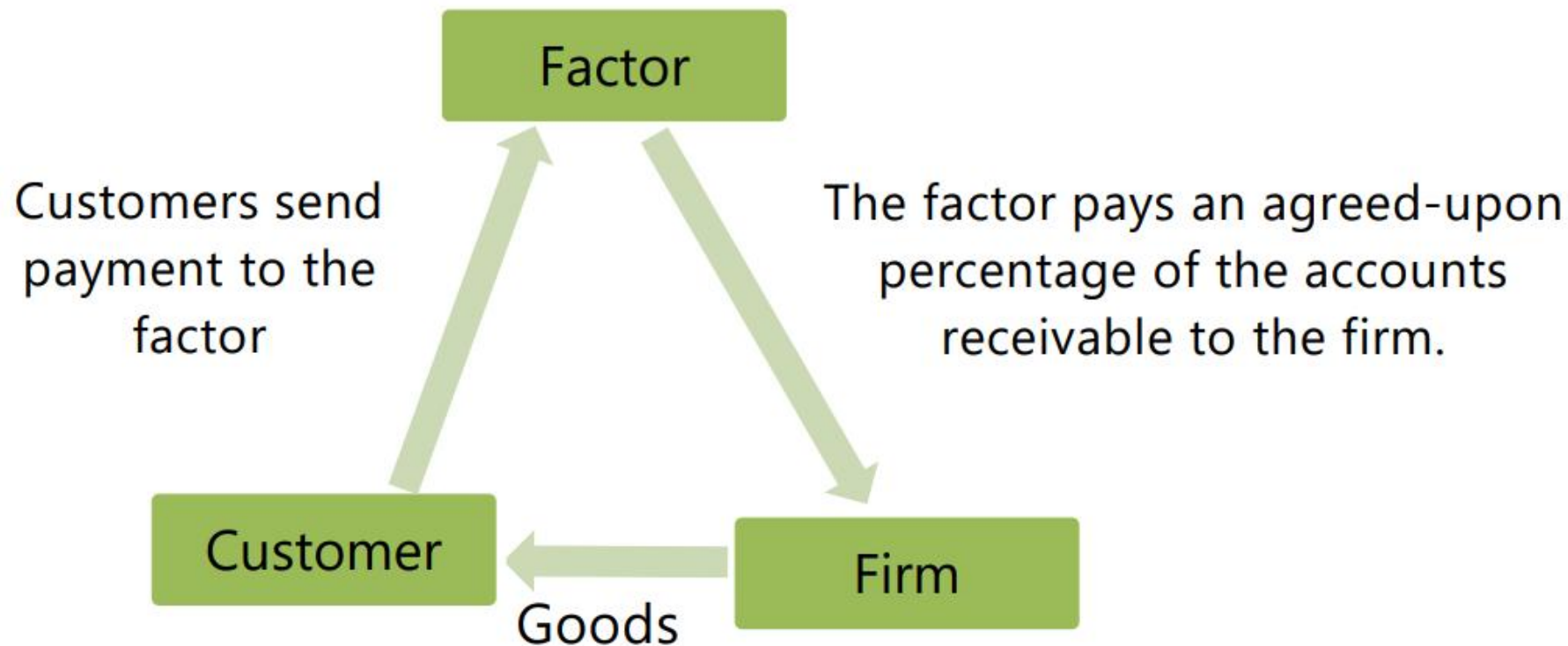
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PLEDGING

Pledging: This refers to the use of a firm's receivable to secure a short term loan. After cash, a firm's receivables can be termed as its most liquid assets and this serve as prime collateral for a secured loan. The lender scrutinizes the quality of the account receivables, selects acceptable accounts, creates a lien on the collateral and fixes the percentage of financing receivables which ranges around 50 to 90%. The major advantage of pledging accounts receivables is the ease and flexibility it provides to the borrower. Moreover, financing is done regularly. This, however, suffers on account of high cost of financing. Also being a loan, it leaves an impact on the debt equity ratio as well by increasing the amount of debt.

FACTORING

Factoring: Factoring is a relatively new concept in financing of accounts receivables. This refers to outright sale of accounts receivables to a factor or a financial agency. A factor is a firm that acquires the receivables of other firms. The factoring lays down the conditions of the sale in a factoring agreement. The factoring agency bears the risk of collection and services the accounts for a fee.



There are a number of financial institutions providing factoring services in India. Some commercial banks and other financial agencies provide this service. The biggest advantages of factoring are the immediate conversion of receivables into cash and predicted pattern of cash flows. Financing receivables with the help of factoring can help a company having liquidity **without creating a net liability on its financial condition** and hence no impact on debt equity ratio. Besides, factoring is a flexible financial tool providing timely funds, efficient record keepings and effective management of the collection process. This is not considered as a loan. There is no debt repayment and hence no compromise to balance sheet, no long-term agreements or delays associated with other methods of raising capital. Factoring allows the firm to use cash for the growth needs of business.

TYPES OF FACTORING

Recourse: In case factor is unable to collect the amount from receivables then, factor can turn back the same to the organization for resolution (which generally is by replacing those receivables with new receivables)

Non-Recourse: The factor bears the ultimate risk of loss in case of default and hence in such cases they charge higher commission.

ILLUSTRATION 17 (PYP DEC 2021) 5 MARKS

A factoring firm has offered a company to buy its accounts receivables.

The relevant information is given below.

1. The current average collection period for the company's debt is 80 days and $\frac{1}{2}\%$ of debtors default. The factor has agreed to pay over money due, to the company after 60 days and it will suffer all the losses of bad debts also.
2. Factor will charge commission @2%,
3. The company spends Rs. 1,00,000 p.a. on administration of debtors.
4. Annual credit sales are Rs. 90 lakhs. Total variable cost is 80% of sales. The company's cost of borrowing is 15% per annum.

Assume 365 days in a year.

Should the company enter into agreement with factoring firm ?

Statement Showing Evaluation of Proposed Factoring Arrangement

Sr. No	Particulars	Amount
A	<u>Cost of Factoring</u>	
i)	Factoring Commission $(9000000 \times 2\%)$	180000
	Total (A)	180000
B	<u>Benefits of Factoring</u>	
i)	Saving in Bad Debts $(90 \text{ lakhs} \times 0.50\%)$	45000
ii)	Saving in Administration Cost	100000
iii)	Saving In Interest Cost $(90 \text{ lakhs} \times 80\%) / 365 \times 20 \text{ Days} \times 15\%$	59178
	Total (B)	204178
C	Net Benefit (B-A)	24178

Note – Investment in Receivables is Considered on The basis of Variable Cost.

Conclusion – As The Net Benefit is 24178 on Entering the Factoring Agreement , It is Suggested to Go For Factoring.

ILLUSTRATION 18

A Factoring firm has credit sales of ₹ 360 lakhs and its average collection period is 30 days. The financial controller estimates, bad debt losses are around 2% of credit sales. The firm spends ₹ 1,40,000 annually on debtors administration. This cost comprises of telephonic and fax bills along with salaries of staff members. These are the avoidable costs. A Factoring firm has offered to buy the firm's receivables. The factor will charge 1% commission and will pay an advance against receivables on an interest @15% p.a. after withholding 10% as reserve. ANALYSE what should the firm do?

Assume 360 days in a year.

Statement Showing Amount To Be Advanced By Factor

Sr.No	Particulars	Amount
A	Gross Amount of Receivables (360 Lakhs/360 Days *30)	3000000
B	Factoring Commission (A*1%)	30000
C	10% of Reserve (A*10%)	300000
D	Amount of Advance to Be Given By Factoring Agency (A-B-C)	2670000
E	Interest Payable to factor (2670000*15%/360*30)	33375
F	Net Amount Advanced By Factor (D-E)	2636625

Statement Showing Evaluation of Proposed Factoring Arrangement

Sr. No	Particulars	Amount
A	<u>Cost of Factoring</u>	
i)	Factoring Commission (30000*12 Months)	360000
ii)	Interest Cost (33375*12 Months)	400500
	Total (A)	760500
B	<u>Benefits of Factoring</u>	
i)	Saving in Bad Debts (360 Lakhs *2%)	720000
ii)	Saving in Administration Cost	140000
	Total (B)	860000
C	Net Benefit (B-A)	99500

Note – In The Absence of Relevant Information , Opportunity Cost on Reserves With Factoring Agency is Ignored.

Conclusion – As The Net Benefit is 99500 on Entering the Factoring Agreement , It is Suggested to Go For Factoring.

ILLUSTRATION 19 (MTP MAY 2019 SERIES 2) 6 MARKS

Navya Ltd has annual credit sales of Rs. 45 lakhs. Credit terms are 30 days, but its management of receivables has been poor and the average collection period is 50 days, Bad debt is 0.4 per cent of sales. A factor has offered to take over the task of debt administration and credit checking, at an annual fee of 1 per cent of credit sales. Navya Ltd. estimates that it would save Rs. 35,000 per year in administration costs as a result. Due to the efficiency of the factor, the average collection period would reduce to 30 days and bad debts would be zero. The factor would advance 80 per cent of invoiced debts at an annual interest rate of 11 per cent. Navya Ltd. is currently financing receivables from an overdraft costing 10 per cent per year.

If occurrence of credit sales is throughout the year, COMPUTE whether the factor's services should be accepted or rejected. Assume 365 days in a year.

Statement Showing Evaluation of Proposed Factoring Arrangement

Sr. No	Particulars	Amount
A	<u>Cost of Factoring</u>	
i)	Factoring Commission (4500000*1%)	45000
	Total (A)	45000
B	<u>Benefits of Factoring</u>	
i)	Saving in Bad Debts (4500000*.04%)	18000
ii)	Saving in Administration Cost	35000
iii)	Saving In Interest Cost (WN 1)	21699
	Total (B)	74699
C	Net Benefit (B-A)	29699

WN 1 – Ascertainment of Saving in Interest Cost on Factoring		
Sr. No	Particulars	Amount
A	<u>Present Interest Cost in Receivables in Investment</u>	
i)	Interest $(4500000/365*50) * 10\%$	61644
	Total (A)	61644
B	<u>Interest on Investment in Receivables on Factoring</u>	
i)	Interest Cost on 80% of Investment in Receivables Financed Through Factoring $(4500000/365*30) * 80\% * 11\%$	32548
ii)	Interest Cost on 20% of Investment in Receivables Financed Through Overdraft $(4500000/365*30) * 20\% * 10\%$	7397
	Total (B)	39945
C	Saving In Interest Cost (A-B)	21699

Conclusion – As The Net Benefit is 21699 on Entering the Factoring Agreement , It is Suggested to Go For Factoring.

ILLUSTRATION 20 (RTP NOV 2021)

The Alliance Ltd., a Petrochemical sector company had just invested huge amount in its new expansion project. Due to huge capital investment, the company is in need of an additional ₹ 1,50,000 in working capital immediately. The Finance Manger has determined the following three feasible sources of working capital funds:

- (i) Bank loan: The Company's bank will lend ₹ 2,00,000 at 15%. A 10% compensating balance will be required, which otherwise would not be maintained by the company.
- (ii) Trade credit: The company has been offered credit terms from its major supplier of 3/30, net 90 for purchasing raw materials worth ₹ 1,00,000 per month.
- (iii) Factoring: A factoring firm will buy the company's receivables of ₹ 2,00,000 per month, which have a collection period of 60 days. The factor will advance up to 75% of the face value of the receivables at 12% on an annual basis. The factor will also charge commission of 2% on all receivables purchased. It has been estimated that the factor's services will save the company a credit department expense and bad debt expense of ₹ 1,250 and ₹ 1,750 per month respectively.

On the basis of annual percentage cost, ADVISE which alternative should the company select? Assume 360 days year.

Option I – Bank Loan

$$\begin{aligned}\text{Annual Cost of Loan} &= \frac{15}{90} \times 100 \\ &= 16.67\%\end{aligned}$$

Option II – Trade Credit

$$\begin{aligned}\text{Cost of Funds of} \\ \text{Trade Credit For 60 Days} &= \frac{\text{Interest}}{\text{Funds Available For Usage}} \times 100 \\ &= \frac{3}{97} \times 100 \\ &= 3.09\%\end{aligned}$$

$$\text{Annual Cost} = \frac{3.09}{60} \times 360 = 18.54\%$$

Option III – Factoring

Sr.No	Particulars	Amount
A	Factoring Commission (200000*12*2%)	48000
B	Saving in Bad Debts (1750*12)	21000
C	Saving in Credit Department Expenses (1250*12)	15000
D	Net Cost of factoring Other Than Interest Cost (A-B-C)	12000

Annual Cost of Factoring = $\frac{\text{Annual Interest Cost} + \text{Annual Cost of Factoring}}{\text{Fund Available for usage}} \times 100$

$$\begin{aligned} &= \frac{(150000 \times 12\%) + 12000}{150000} \times 100 \\ &= 20\% \end{aligned}$$

Conclusion – The Company Should Select Alternative of Bank Loan to Satisfy Their Working Capital Requirement as it has Lowest Annual Cost of 16.67%

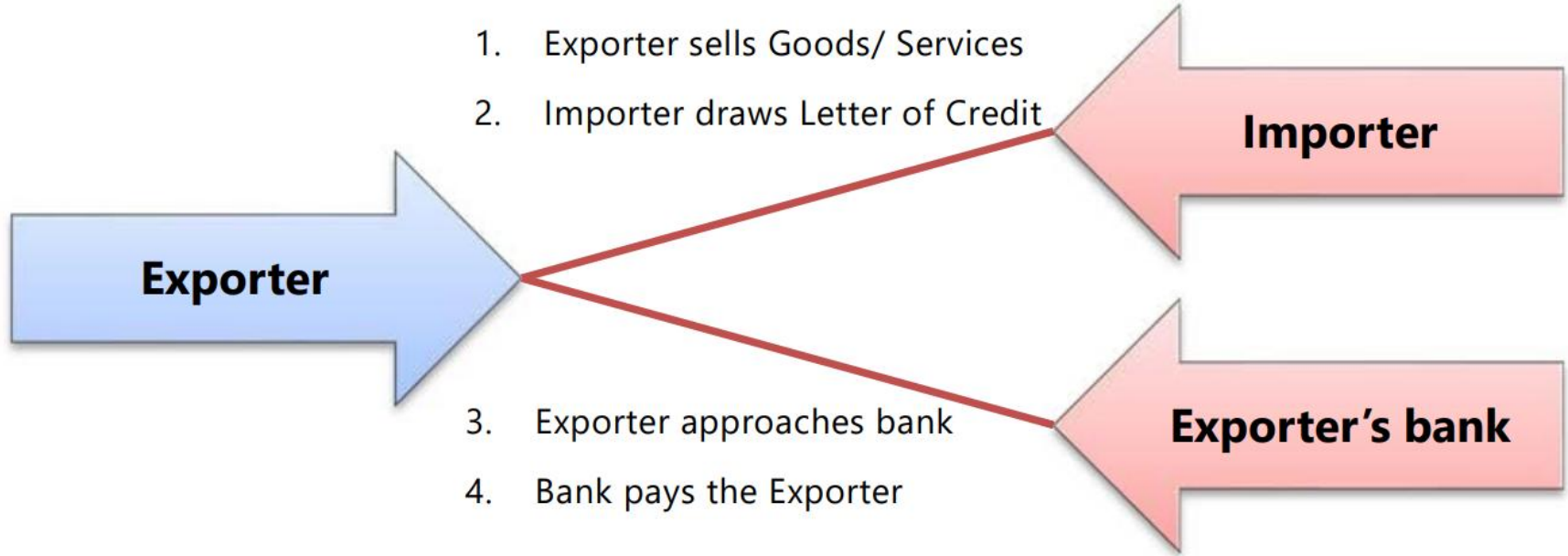
FORFAITING

'Forfait' is a French term which means "relinquish a right". Forfaiting is an arrangement of bill discounting in which a financial institution or bank buys the trade bills (invoices) or trade receivables from exporters of goods or services, where the exporter relinquish his right to receive payment from importer. Financial Institutions or banks provides immediate finance to exporter 'without recourse' basis in which risk and rewards related with the bills/ receivables transferred to the financial institutions/ banks. It is a unique credit facility arrangement where an overseas buyer (importer) can open a "letter of credit" (or other negotiable instruments) in favour of the exporter and can import goods and services on deferred payment terms.

FUNCTIONS OF FORFAITING

The functionality can be understood in the following manner:

- (i) Exporter sells goods or services to an overseas buyer.
- (ii) The overseas buyers i.e. the importer on the basis trade bills and import documents draws a letter of credit (or other negotiable instruments) through its bank (known as importer's bank).
- (iii) The exporter on receiving the letter of credit (or other negotiable instruments) approaches to its bank (known as exporter's bank).
- (iv) The exporter's bank buys the letter of credit (or other negotiable instruments) 'without recourse basis' and provides the exporter the payment for the bill.



FEATURES OF FORFAITING

- It motivates exporters to **explore new geographies** as payment is assured.
- An overseas buyer (importer) can import goods and services on **deferred payment terms**.
- The exporter enjoys **reduced transaction costs and complexities** of international trade transactions.
- The exporter gets to **compete in the international market** and can continue to put his working capital to good use to scale up operations.
- While importers avail of forfaiting facility from international financial institutions in order to **finance their imports at competitive rates**.

MANAGEMENT OF CASH , TREASURY & MARKETABLE SECURITIES

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.
- ☐ Function of Treasury Management
- ☐ Important Areas of Cash Management.
- ☐ Considerations in Holding Cash
- ☐ Cash Budgets
- ☐ Methods of Cash Flow Budgeting
- ☐ Format of Cash Budget
- ☐ Management of Cash Collections & Disbursements
- ☐ Various Type of Floats in the Context of Cash Management
- ☐ Concentration Banking v/s Lock Box System
- ☐ Cash Management Models-William J Baumol's EOQ Model For Optimum Cash Balance, Miller-Orr Cash Management Model
- ☐ Recent Developments in Cash Management
- ☐ Management of Marketable Securities
- ☐ Principals Involved in the Selection of Marketable Securities

CASH BUDGET

Cash Budget is a tool for forecasting short-term cash requirements of an enterprise. They provide a blueprint of the cash inflows and outflow that are expected to occur in the immediate future period. They assist the management in determining the surplus or shortage of funds and to take suitable action.



FORMAT OF CASH BUDGET

	Month 1	Month 2	Month 3	Month 4
Receipts:				
Collection from debtors				
Cash sales				
Loans from banks				
Share capital				
Miscellaneous receipts				
Other items				
Total				
Payments:				
Payments to creditors				
Wages				
Overheads				
(a)				
(b)				
(c)				
Interest				
Dividend				
Corporate tax				
Capital expenditure				
Other items				
Total				
Opening balance				
[surplus (+)/ Deficiti (-)]				
Closing balance				

ILLUSTRATION 21

The following information relates to Zeta Limited, a publishing company:

The selling price of a book is ₹ 15, and sales are made on credit through a book club and invoiced on the last day of the month.

Variable costs of production per book are materials (₹ 5), labour (₹ 4), and overhead (₹ 2)

The sales manager has forecasted the following volumes:

Month	No. of Books
November	1,000
December	1,000
January	1,000
February	1,250
March	1,500
April	2,000
May	1,900
June	2,200
July	2,200
August	2,300

Customers are expected to pay as follows:

One month after the sale	40%
Two months after the sale	60%

The company produces the books two months before they are sold and the creditors for materials are paid two months after production.

Variable overheads are paid in the month following production and are expected to increase by 25% in April; 75% of wages are paid in the month of production and 25% in the following month. A wage increase of 12.5% will take place on 1st March.

The company is going through a restructuring and will sell one of its freehold properties in May for ₹25,000, but it is also planning to buy a new printing

press in May for ₹10,000. Depreciation is currently ₹1,000 per month, and will rise to ₹1,500 after the purchase of the new machine.

The company's corporation tax (of ₹10,000) is due for payment in March.

The company presently has a cash balance at bank on 31 December 2020, of ₹ 1,500.

You are required to PREPARE a cash budget for the six months from January to June, 2021.

Monthly Cash Budget From Jan to June 2020							
SR.NO	PARTICULARS	Jan	Feb	March	April	May	June
A	Receipts						
	1Receipts From Debtors (WN -1)	15000	15000	16500	20250	25500	29400
	2Sale of Freehold Property					25000	
	Total (A)	15000	15000	16500	20250	50500	29400
B	Payments						
	1Payment for Purchases	5000	6250	7500	10000	9500	11000
	2variable Overheads	2500	3000	4000	3800	5500	5500
	3Wages	5750	7500	8413	9563	9900	10238
	4Purchase of Printing Press					10000	
	5Corporation Tax			10000			
	Total (B)	13250	16750	29913	23363	34900	26738
C	Opening Balance	1500	3250	1500	-11913	-15025	575
D	Surplus/(Deficit)	1750	-1750	-13413	-3113	15600	2663
E	Closing Balance	3250	1500	-11913	-15025	575	3238

WN - 1 Collection of Amount From Debtors									
SR.NO	PARTICULARS	Nov	Dec	Jan	Feb	March	April	May	June
A	No. of Books Sold	1000	1000	1000	1250	1500	2000	1900	2200
B	Total Sales (A*15)	15000	15000	15000	18750	22500	30000	28500	33000
C	Previous Month Collection (40% of Previous month Sales)			6000	6000	7500	9000	12000	11400
D	Previous to Previous Month Collection (60% of Prev. to Prev. month's Sales)			9000	9000	9000	11250	13500	18000
E	Total Collection (C+D)			15000	15000	16500	20250	25500	29400
WN - 2 Payment to Creditors									
SR.NO	PARTICULARS	Nov	Dec	Jan	Feb	March	April	May	June
A	Quantity Produced of Next to Next Month Sales	1000	1250	1500	2000	1900	2200	2200	2300
B	Total Purchase Amount (A*5)	5000	6250	7500	10000	9500	11000	11000	11500
C	Payment To Creditors of Prev to Prev Month Due			5000	6250	7500	10000	9500	11000
WN - 3 Payment of Variable Overheads									
SR.NO	PARTICULARS	Nov	Dec	Jan	Feb	March	April	May	June
A	Quantity Produced of Next to Next Month Sales	1000	1250	1500	2000	1900	2200	2200	2300
B	Total Variable Overheads (A*2) Till Mar	2000	2500	3000	4000	3800			
C	Total Variable Overheads (A*2.5) for April to June						5500	5500	5750
D	Total Variable Overheads (B+C)	2000	2500	3000	4000	3800	5500	5500	5750
E	Payment for Variable Overheads of Prev Month			2500	3000	4000	3800	5500	5500
WN - 4 Payment of Wages									
SR.NO	PARTICULARS	Nov	Dec	Jan	Feb	March	April	May	June
A	Quantity Produced of Next to Next Month Sales	1000	1250	1500	2000	1900	2200	2200	2300
B	Wages (A*4) for Till Feb	4000	5000	6000	8000				
C	Wages (A*4.5) for From March to June					8550	9900	9900	10350
D	Total Wages (B+C)	4000	5000	6000	8000	8550	9900	9900	10350
E	Payment of Wages (75% of Wages of Current Month)			4500	6000	6413	7425	7425	7762.5
F	Payment of Wages (25% of Wages of Prev Month)			1250	1500	2000	2137.5	2475	2475
G	Total Wages Paid (E+F)			5750	7500	8413	9562.5	9900	10238

ILLUSTRATION 22 (PYP NOV 2019) 10 MARKS

Slide Ltd. is preparing a cash flow forecast for the three months period from January to the end of March. The following sales volumes have been forecasted:

Months	December	January	February	March	April
Sales (units)	1,800	1,875	1,950	2,100	2,250

Selling price per unit is ₹ 600. Sales are all on one month credit. Production of goods for sale takes place one month before sales. Each unit produced requires two units of raw materials costing ₹ 150 per unit. No raw material inventory is held. Raw materials purchases are on one month credit. Variable overheads and wages equal to ₹ 100 per unit are incurred during production and paid in the month of production. The opening cash balance on 1st January is expected to be ₹ 35,000. A long term loan of ₹ 2,00,000 is expected to be received in the month of March. A machine costing ₹ 3,00,000 will be purchased in March.

- (a) *Prepare a cash budget for the months of January, February and March and calculate the cash balance at the end of each month in the three months period.*
- (b) *Calculate the forecast current ratio at the end of the three months period.*

Monthly Cash Budget From Jan to Mar 2020

SR.NO	PARTICULARS	Jan	Feb	March
A	Receipts			
	1 Receipts From Debtors (WN -1)	1080000	1125000	1170000
	2 Reciept of Bank Loan			200000
	Total (A)	1080000	1125000	1370000
B	Payments			
	1 Payment for Purchases (WN -2)	562500	585000	630000
	2 variable Overheads & Wages (WN-3)	195000	210000	225000
	3 Purchase of Machinery			300000
	Total (B)	757500	795000	1155000
C	Opening Balance	35000	357500	687500
D	Surplus/(Deficit)	322500	330000	215000
E	Closing Balance	357500	687500	902500

WN - 1 Collection of Amount From Debtors					
SR.NO	PARTICULARS	Dec	Jan	Feb	March
A	No. of Units Sold	1800	1875	1950	2100
B	Total Sales (A*600)	1080000	1125000	1170000	1260000
C	Amount Collected from Debtors (100% of Prev Month Sale)		1080000	1125000	1170000
WN - 2 Payment to Creditors					
SR.NO	PARTICULARS	Dec	Jan	Feb	March
A	Quantity Produced of Next Month's Sale	1875	1950	2100	2250
B	Raw Material units Required (A*2)	3750	3900	4200	4500
C	Raw Material Cost (B*150)	562500	585000	630000	675000
D	Payment to Creditors (100% of Prev Month Purchase)		562500	585000	630000
WN - 3 Payment of Variable Overheads & Wages					
SR.NO	PARTICULARS	Dec	Jan	Feb	March
A	Quantity Produced of Next Month's Sale	1875	1950	2100	2250
B	Total Variable Overheads (A*100) Paid in Same Month	187500	195000	210000	225000

COMPUTATION OF CURRENT RATIO		
A	<u>CURRENT ASSETS</u>	
	1DEBTORS	1260000
	2CASH BALANCE	902500
	INVENTORY (COST OF PRODUCTION)	
	3(675000+225000)	900000
		3062500
B	<u>CURRENT LIABILITIES</u>	
	1CREDITORS	675000
C	CURRENT RATIO (CURRENT ASSETS/CURRENT LIABILITIES)	4.54 TIMES

ILLUSTRATION 23 (5 MARKS)

A garment trader is preparing cash forecast for first three months of calendar years 2021. His estimated sales for the forecasted periods are as below:

	January (RS. 000)	February (RS. 000)	March (RS. 000)
Total sales	600	600	800

- i. The trader sells directly to public against cash payment and to other entities on credit. Credit sales are expected to be four times the value of direct sales to public. He expected 15% customers to pay in the month in which credit sales are made, 25% to pay in the next month and 58% to pay in the next-to-next month. The outstanding balance is expected to be written off.
- ii. Purchase of goods are made in the month prior to sales and it amount to 90% of sales and are made on credit. Payment of these occur in the month after the purchase. No inventories of goods are held.
- iii. Cash balance as on 1st January, 2021 is RS 50,000.
- iv. Actual sales for the last two months of calendar year 2020 are as below.:

	November (RS. 000)	December (RS. 000)
Total sales	640	880

You are required to prepare a monthly cash budget for the three months from January to March, 2021.

Cash Budget For Jan To March 21

SR.NO	PARTICULARS	JAN	FEB	MAR
A	RECIEPTS			
1	Collection From Cash Sales	120000	120000	160000
2	Collection From Credit Sales (WN 1)	544960	600320	494400
	Total (A)	664960	720320	654400
B	PAYMENTS			
1	Payment For Purchases	540000	540000	720000
	Total (B)	540000	540000	720000
C	OPENING BALANCE	50000	174960	355280
D	SURPLUS/DEFICIT	124960	180320	(65600)
E	CLOSING BALANCE	174960	355280	289680

WN - 1 Collection of Amount From Debtors						
SR.NO	PARTICULARS	NOV	DEC	JAN	FEB	MARCH
A	Total Sales	640000	880000	600000	600000	800000
B	Credit Sales (80% of A)	512000	704000	480000	480000	640000
C	Same Month credit Sales Collection			72000	72000	96000
	(15% of Current Month Sales)					
D	Previous Month credit Sales Collection			176000	120000	120000
	(25% of Previous month's cr Sales)					
E	Previous to previous Month credit Sales Collection			296960	408320	278400
	(58% of Previous to previous month's cr Sales)					
F	Total			544960	600320	494400

ILLUSTRATION 24 PYQ NOV 22 (5 MARKS)

K Ltd. has a Quarterly cash outflow of ₹ 9,00,000 arising uniformly during the Quarter. The company has an Investment portfolio of Marketable Securities. It plans to meet the demands for cash by periodically selling marketable securities. The marketable securities are generating a return of 12% p.a. Transaction cost of converting investments to cash is ₹ 60. The company uses Baumol model to find out the optimal transaction size for converting marketable securities into cash.

Consider 360 days in a year.

You are required to calculate

- (i) Company's average cash balance,*
- (ii) Number of conversions each year and*
- (iii) Time interval between two conversions.*

(i) Computation of Average Cash balance:

Annual cash outflow (U) = 9,00,000 x 4 = ₹ 36,00,000

Fixed cost per transaction (P) = ₹ 60

Opportunity cost of one rupee p.a. (S) = $\frac{12}{100} = 0.12$

Optimum cash balance (C) = $\sqrt{\frac{2UP}{S}} = \sqrt{\frac{2 \times 36,00,000 \times 60}{0.12}} = ₹ 60,000$

∴ Average Cash balance = $\frac{(0 + 60,000)}{2} = ₹ 30,000$

(ii) Number of conversions p.a.

Annual cash outflow = ₹ 36,00,000

Optimum cash balance = ₹ 60,000

$$\therefore \text{No. of conversions p.a.} = \frac{36,00,000}{60,000} = 60$$

(iii) Time interval between two conversions

No. of days in a year = 360

No. of conversions p.a. = 60

$$\therefore \text{Time interval} = \frac{360}{60} = 6 \text{ days}$$

MANAGEMENT OF PAYABLES

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**
- ☐ **Cost of Availing Trade Credit**
- ☐ **Cost of Not Taking Trade Credit**
- ☐ **Annual Cost of Payables (Without Compounding)**
- ☐ **Annual Cost of Payables (With Compounding)**
- ☐ **Problems**

ANNUAL COST OF PAYABLES (WITHOUT COMPOUNDING)

$$\frac{d}{100 - d} \times \frac{365 \text{ days}}{t}$$

Where ,

d – Discount Per Rs. 100

t - Credit Period – Max Period For Availing Discount

ANNUAL COST OF PAYABLES (WITH COMPOUNDING)

$$\left(\frac{100}{100 - d} \right)^{\frac{365}{t}} - 1$$

Where ,

d – Discount Per Rs. 100

t - Credit Period – Max Period For Availing Discount

ILLUSTRATION 25

Suppose ABC Ltd. has been offered credit terms from its major supplier of 2/10, net 45. Hence the company has the choice of paying Rs.98 per Rs.100 or to invest Rs.98 for an additional 35 days and eventually pay the supplier Rs.100 per Rs.100. The decision as to whether the discount should be accepted depends on the opportunity cost of investing Rs.98 for 35 days.

- a) Calculate Annual Cost of payables (without Compounding)
- b) Calculate Annual Cost of payables (with Compounding)
- c) Calculate Net Amount of payables Considering Rate of Return of 25% & Invoice Value of Rs. 100000 in Both Situations of accepting Discount & Refusing Discount.

I] Implied Annual Cost of Payables (without Compounding)

$$= \frac{d}{100-d} \times \frac{365}{t}$$

$$= \frac{2}{100-2} \times \frac{365}{45-10}$$

$$= \frac{2}{98} \times \frac{365}{35}$$

$$= 0.2128 \text{ that is } 21.28\%$$

2] Implied Annual Cost of Payables (with Compounding)

$$17 \left(\frac{100}{100 - 1} \right)^{\frac{365}{2}} - 1$$

$$17 \left(\frac{100}{100 - 2} \right)^{\frac{365}{45 - 10}} - 1$$

$$17 \left(\frac{100}{98} \right)^{365 / 35} - 1$$

$$= (1.0264)^{10.4286} - 1$$

$$= 1.2344 - 1$$

$$= 0.2344 \text{ that is } 23.44\%$$

3] Evaluation of Discount Policy If Rate of Return is 25%.

Sl. NO	Particulars	Refuse Discount	Accept Discount
A	Invoice Value	100000	100000
B	Payment to Supplier	106000	98000
C	Return on Investing 98000 for 35 Days.	2350	-

$$\left[\frac{98000 \times 25\% \times 35}{365} \right]$$

D.	Net Cost (B-C)	97650	98000
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Conclusion: ~ Based on above Computations, it is advised not to accept Discount offer & pay entire amount on 45th Day. [ROR > Annual cost of payables]