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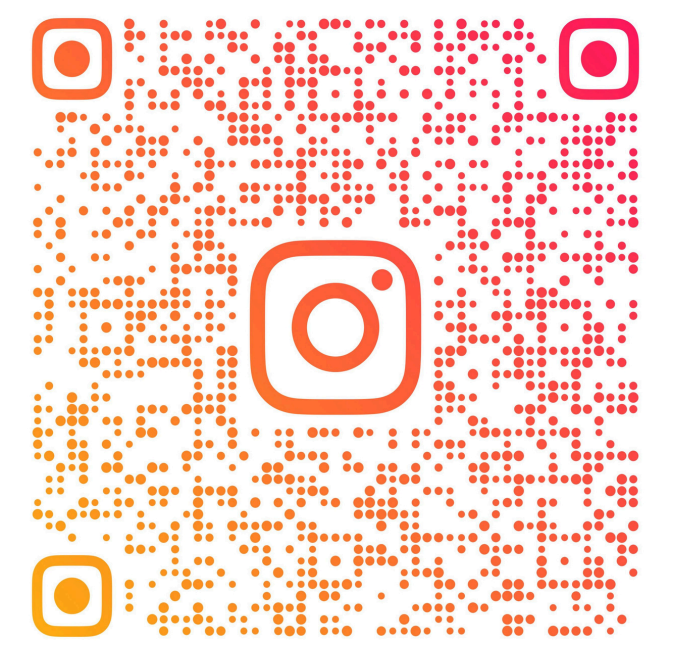


CA ADARSH JOSHI

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



@CA_DARSHAN_JAIN

CA TUSHAR TAPARIA

CA , LLB

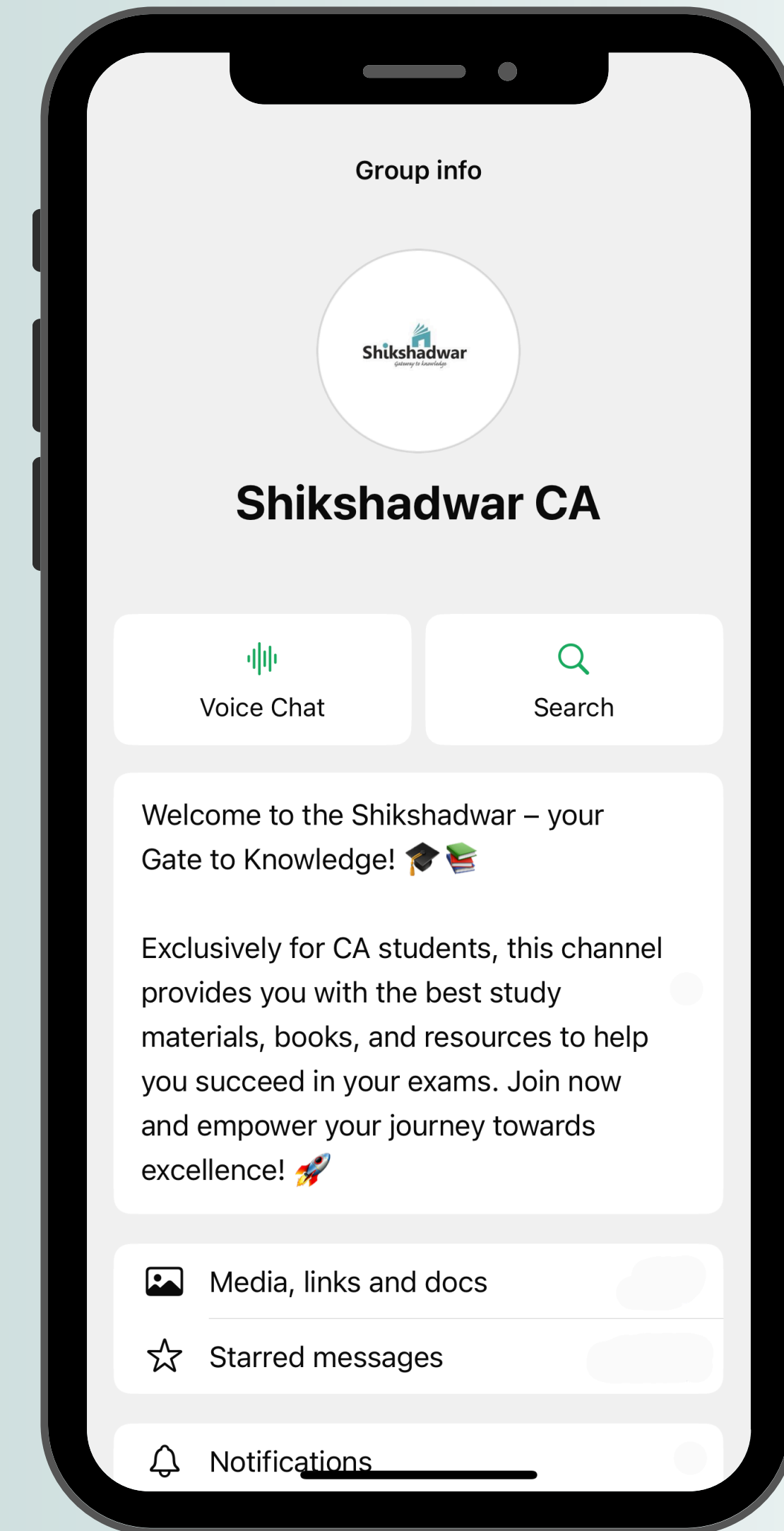
- A multi-faceted professional with a Chartered Accountancy qualification and a Bachelor's degree in Law.
- Brings 7+ years of teaching experience across CA and CS professional courses.
- Specializes in:
 - Taxation at CA Intermediate and CS Executive levels
 - Economics at CA Foundation level
- Known 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.
- Loved by students for his interactive teaching style, real-life examples, and exam-oriented approach.



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01



Book Series

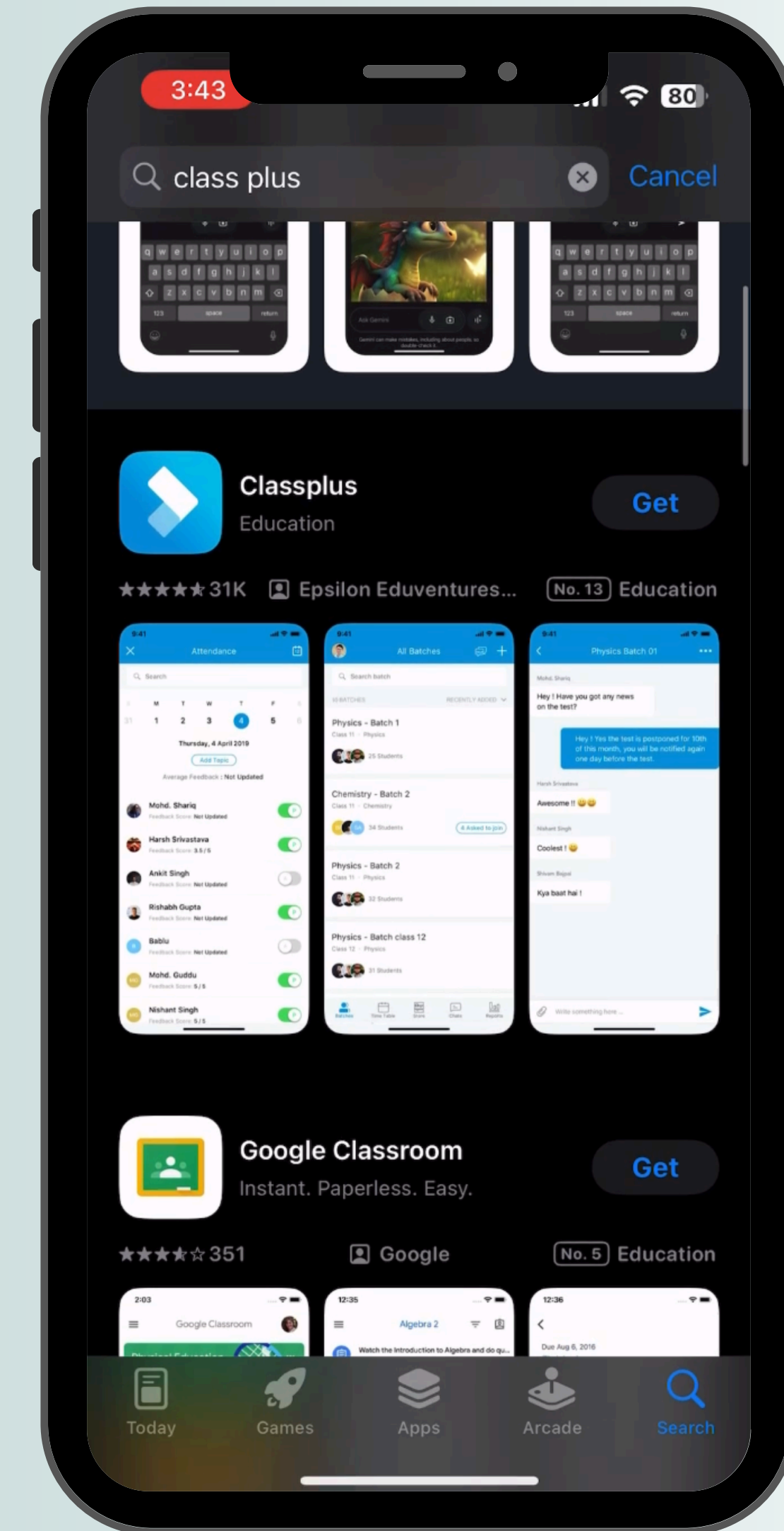
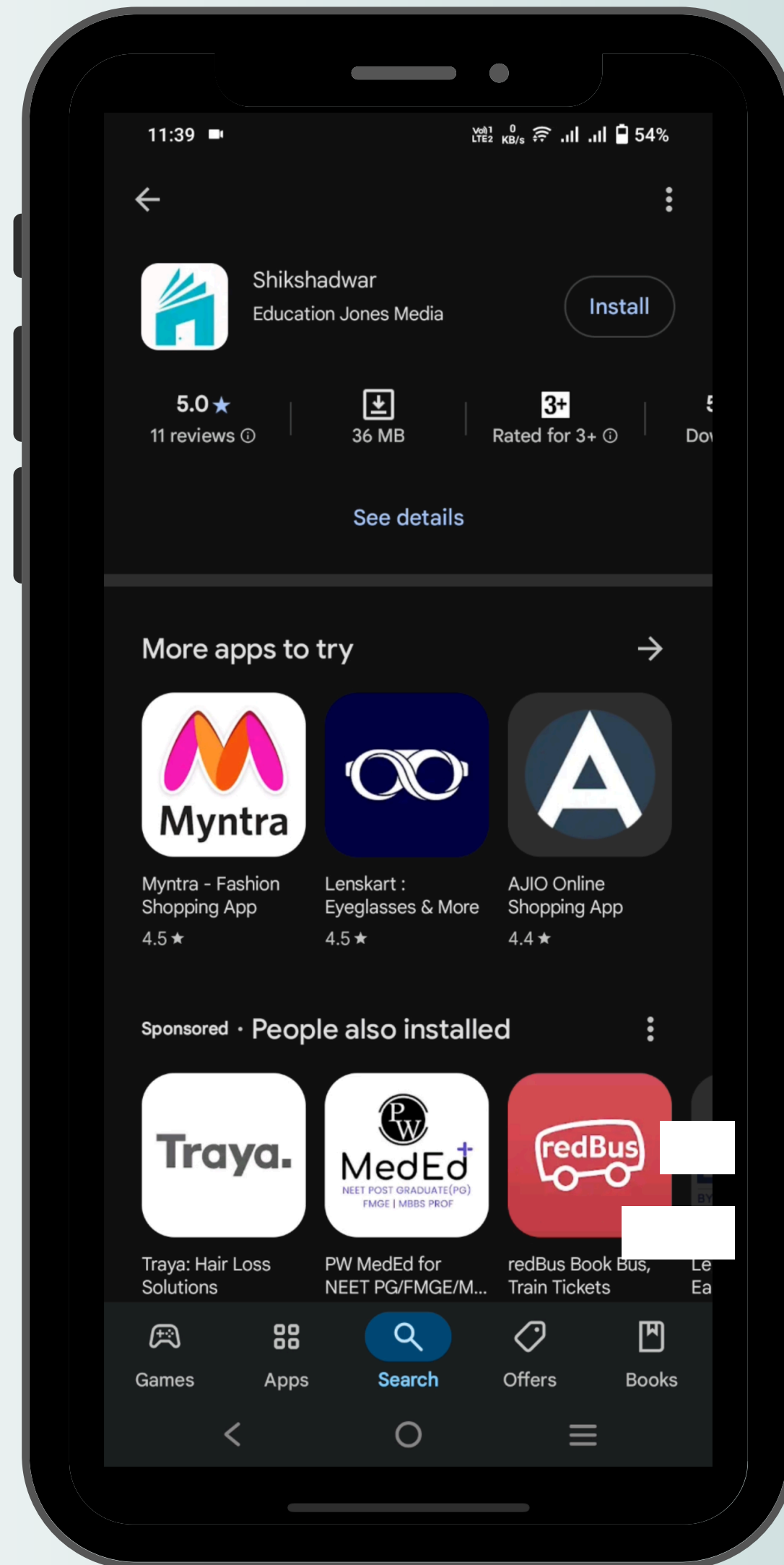
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02

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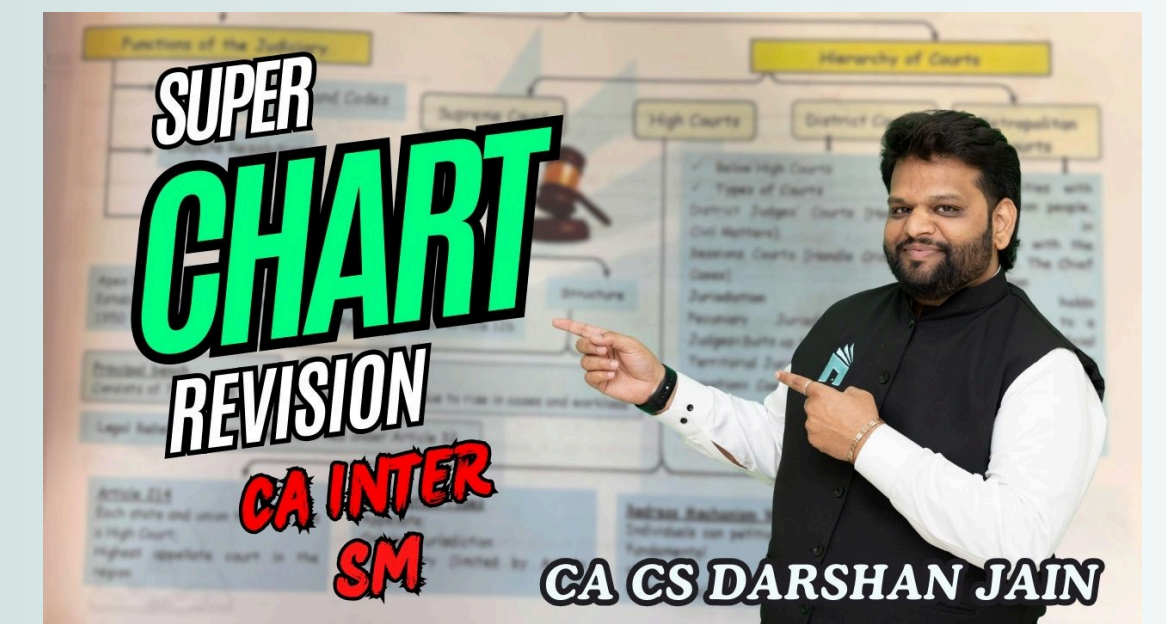
CA INTERMEDIATE MAY 25

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	
18/4/2025	12.00 NOON	CA TUSHAR TAPARIA	GST	RRR	
19/4/2025	8.00 AM	CA CS DARSHAN JAIN	FM	RRR	
20/4/2025	8.00 AM	CA ADARSH JOSHI	LAW	ONE SHOT MCQ MARATHON	
21/4/2025	2.00 PM	CA TUSHAR TAPARIA	GST	GST AMENDMENTS & ITS IMPORTANT QUESTIONS	
23/4/2025	8.00 AM	CA CS DARSHAN JAIN	FM	ONE SHOT MCQ MARATHON	

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

**TEST PAPER
ON
COST OF CAPITAL**

QUESTION 1 (10 Marks)

Ke
Kd
Kp

Theta Limited has the following capital structure:

Equity Share Capital (2,00,000 shares)	₹ 40,00,000
6% Preference shares	10,00,000
8% Debentures	<u>30,00,000</u>
	80,00,000

Expected

The market price of the Theta Limited's equity share is ₹ 20. It is expected that it will pay a current dividend of ₹ 2 per share which will grow at 7 per cent forever. The tax rate may be presumed at 50 percent. You are required to compute the following:

- (1) A weighted average cost of capital based on existing capital structure.
- (2) The new weighted average cost of capital if the company raises an additional ₹ 20,00,000 debt by issuing 10 percent debentures. This would result in increasing the expected dividend to ₹ 3 and leave the growth rate unchanged but the price of share will fall to ₹ 15 per share.
- (3) The cost of capital if in (2) above, growth rate increases to 10 percent

SR.NO	PARTICULARS	ANSWERS
1	$\frac{2}{20+0.07}$ Ke 1	17% ✓
	1 Kp	6% ✓
	Kd 1	4% ✓
	Ko 2	10.75% ✓

SR.NO	PARTICULARS	ANSWERS
2	$\frac{3}{15} \times 100 = 20\%$ Ke 1	27%
	Ko 2	13.60%
3	Ke 1	30%
	Ko 2	14.80%

Computation of ke

$$K_e = \frac{D_1}{P_0} + C_f \times 100$$

$$\approx \frac{2}{20} + 0.07 \times 100$$

$$\approx 0.17 \times 100$$

$$\approx 17\%$$

Statement Showing WACC using Book Value Weights

SR.NO	SOURCE	AMOUNT	PROPORTION	COST	WACC
A	Equity shares	4000000	0.50	17%	0.085
B	Preference shares	1000000	0.125	6%	0.0075
C	Debentures	<u>3000000</u>	<u>0.375</u>	4%	<u>0.015</u>
		8000000	1.00		0.1075

$$\therefore \text{WACC} = K_0 = 10.75\%$$

Computation of k_e

$$k_e = \frac{D_1}{P_0} + q \times 100$$

$$= \frac{3}{5} + 0.07 \times 100$$

$$= 0.27 \times 100$$

$$= 27\%$$

Statement Showing WACC using Book Value Weights

SR.NO	SOURCE	AMOUNT	PROPORTION	COST	WACC
A	Equity shares	4000000	0.40	27%	0.108
B	Prefer shares	1000000	0.10	6%	0.006
C	8% Debentures	3000000	0.30	4%	0.012
D	10% Debentures	2000000	0.20	5%	0.01
		<u>10000000</u>	<u>1.00</u>		<u>0.136</u>

$$\therefore \text{WACC} = \underline{\underline{13.60\%}}$$

Statement Showing WACC using Book Value Weights

SR.NO	SOURCE	AMOUNT	PROPORTION	COST	WACC
A	Equity Shares	4000000	0.40	30%	0.12
B	Prefer Shares	1000000	0.10	6%	0.006
C	^{8%} Debentures	3000000	0.30	4%	0.012
D	10% Debentures	2000000	0.20	5%	0.01
		<u>10000000</u>	<u>1.00</u>		<u>0.148</u>

$$WACC = 14.80\%$$

QUESTION 2 (5 Marks)

A company issues:

- 15% convertible debentures of ₹ 100 each at par with a maturity period of 6 years. On maturity, each debenture will be converted into 2 equity shares of the company. The risk-free rate of return is 10%, market risk premium is 18% and beta of the company is 1.25. The company has paid dividend of ₹ 12.76 per share. Five year ago, it paid dividend of ₹ 10 per share. Flotation cost is 5% of issue amount.

100

Assuming Corporate Tax rate is 40% .

Calculate Cost of Convertible Debentures using Approximation Method

Year	1	2	3	4	5	6	7	8	9	10
$PVIF_{0.03, t}$	0.971	0.943	0.915	0.888	0.863	0.837	0.813	0.789	0.766	0.744
$PVIF_{0.05, t}$	0.952	0.907	0.864	0.823	0.784	0.746	0.711	0.677	0.645	0.614
$PVIFA_{0.03, t}$	0.971	1.913	2.829	3.717	4.580	5.417	6.230	7.020	7.786	8.530
$PVIFA_{0.05, t}$	0.952	1.859	2.723	3.546	4.329	5.076	5.786	6.463	7.108	7.722

Interest rate	1%	2%	3%	4%	5%	6%	7%	8%	9%
$FVIF_{i, 5}$	1.051	1.104	1.159	1.217	1.276	1.338	1.403	1.469	1.539
$FVIF_{i, 6}$	1.062	1.126	1.194	1.265	1.340	1.419	1.501	1.587	1.677
$FVIF_{i, 7}$	1.072	1.149	1.230	1.316	1.407	1.504	1.606	1.714	1.828

(i) Cost of convertible debentures

Redemption value should be higher of

1. Redemption value in cash = 100

2. Redemption in shares = $2 \times$ Share Price per Share on the Day of redemption

$$\approx 2 \times 65.27 \text{ (MINI)}$$
$$\approx 130.54$$

$$K_d = I(1-t) + \frac{RV - NP}{N} \times 100$$

$$\frac{RV + NP}{N}$$

$$= 15(1-0.40)^2 + \left(\frac{130.54 - 95}{6} \right) \times 100$$

$$\frac{130.54 + 95}{6}$$

11

$$\frac{9 + 5.92}{112.77} \times 100 = \frac{14.92}{112.77} \times 100 = 13.23\%$$

MIN1 - Computation of price of share after 6 yrs.

$$K_e = \frac{D_7}{P_6} + G$$

$$0.3250 \quad (MIN2) \approx \frac{12.76 (1+0.05)^7}{P_6} + 0.05 \quad (MIN3)$$

$$0.3250 \approx \frac{17.95}{P_6} + 0.05$$

$$0.3250 - 0.05 \approx \frac{17.95}{P_6}$$

①

$$0.275 \text{ Pg} = 17.95$$

$$\text{Pl} = \underline{\underline{65.27}}$$

Q11N2 - Computation of Cost of Equity

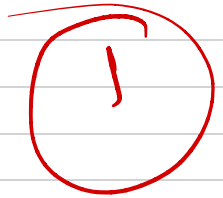
$$K_e = R_f + \beta (R_m - R_f)$$

$$= 0.10 + 1.25 (0.18)$$

$$= 0.10 + 0.225$$

$$= 0.3250$$

That is 32.50%



WNB - Computation of growth rate

$$\begin{aligned} G &= \frac{D_0}{D_n} \\ &= \frac{12.76}{10} \\ &= 1.276 \end{aligned}$$

1

Going through FVIF Table it can be seen that 1 Rs becomes 1.276 in 5 years at 5%. Hence growth rate is 5%.

QUESTION 3 (10 Marks)

0.40 70.10
= 42.1

Amrit Corporation has the following book value capital structure:

Equity Capital (50 lakh shares of ₹ 10 each).	₹ 5,00,00,000
15% Preference share (50,000 shares ₹ 100 each)	₹ 50,00,000
Retained earnings	₹ 4,00,00,000
Debentures <u>14%</u> (2,50,000 debentures ₹ <u>100</u> each)	₹ 2,50,00,000
<u>Term loan 13%</u>	₹ 4,00,00,000

The company's last year earnings per share was ₹ 5, and it maintains a dividend pay-out ratio of 60% and returns on equity is 10%. The market price per share is ₹ 20.8. Preference share redeemable after 10 years is currently selling for ₹ 90 per share. Debentures redeemable after 6 years are currently selling for ₹ 75 per debenture. The income tax rate is 40%.

- (a) CALCULATE the Weighted Average Cost of Capital (WACC) using market value proportions.
- (b) DETERMINE the Marginal Cost of Capital (MACC) if it needs ₹ 5,00,00,000 next year assuming the amount will be raised by 60% equity, 20% debt and 20% retained earnings. Equity issues will fetch a net price of ₹ 14 and cost of debt will be 13% before tax up to ₹ 40,00,000 and beyond ₹ 40,00,000 it will be 15% before tax.

Equity	0.60
Debt	0.20
retained	0.20

1. Computation of Cost of Equity.

Since entire earnings are not distributed as dividend, we shall calculate growth rate using Gordon's model.

$$g = B \times r$$

$$= 0.40 \times 0.10$$

$$= 0.04$$

That is 4%.

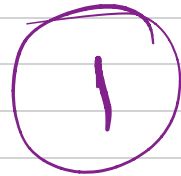


$$K_e = \frac{D_1}{P_0} + C_e \times 100$$

$$= \frac{3.12}{20.80} + 0.04 \times 100$$

$$= 0.19 \times 100$$

$$= 19\%$$

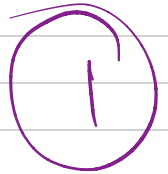


2. Computation of K_p

$$K_p = \text{I}^{\text{D}} + \frac{\text{RV} - \text{NP}}{N} \quad \times 100$$

$$= 15 + \frac{100 - 90}{10} \quad \times 100$$

$$= \frac{100 + 90}{2} \\ 16.84\%$$



3. Computation of K_d (Debt) (Warrantages)

$$K_d = \frac{I(1-t) + \frac{RV - NP}{3}}{\frac{RV + NP}{2}} \quad \times 100$$

$$= \frac{14(1-0.40) + \frac{100 - 75}{6}}{\frac{100 + 75}{2}} \quad \times 100$$

①

$$= \frac{2.4 + 4.17}{87.50} \times 100$$

$$= 14.37\%$$

Computation of K_d (13% loan)

$$\underline{0.50} K_d = \frac{I(1-t)}{W} = \frac{13(1-0.40)}{100} \times 100 = 7.8\%$$

4. Cost of Retained Earnings

As there is ^{NO} flotation cost &
personal taxation

0-50

$$K_r = K_e = 19\%$$

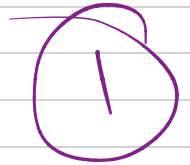
Statement showing computation of WACC using market value weights. 2

Sr. No	Source	Am't	Prop'n	Cost	WACC
A	Equity	104000000 (500000 × 2080)	0.6218	19%	0.1181
B	Preference Shares	4500000 (50000 × 90)	0.0269	16.84%	0.0045
C	14% Debentures	18750000 (250000 × 75)	0.1121	14.37%	0.0161
D	13% Loan	40000000	0.2392	7.80%	0.0187
		<u>167250000</u>	<u>1.00</u>		<u>0.1574</u>

$$\text{WACC} = \underline{\underline{12.74\%}}$$

2. Computation of marginal cost of Capital.

$$\begin{aligned}K_e &= \frac{D_1}{P_0} + q \times 100 \\ &= \frac{3.12}{14} + 0.04 \times 100 \\ &= 26.29\%\end{aligned}$$



$$k_d = \frac{(4000000 \times 13\%) + (6000000 \times 15\%) (1-t)}{10000000}$$

$$= \frac{520000 + 900000 (1-0.40)}{10000000}$$

$$= 0.0852$$

That is 8.52%.

①

Statement showing computation of MCC

Sl. No	Source	Propn	Cost	MCC
A	Equity	0.60	25.29%	0.1577
B	Retained Earnings	0.20	25.29%	0.0526
C	Debt	0.20	8.52%	0.0170

$$MCC = 22.73\% \quad \underline{\underline{0.2273}}$$

QUESTION 4 (5 Marks)

Face value of equity shares of a company is ₹ 10, while current market price is ₹ 200 per share. Company is going to start a new project, and is planning to finance it partially by new issue and partially by retained earnings. You are required to CALCULATE cost of equity shares as well as cost of retained earnings if issue price will be ₹ 190 per share and floatation cost will be ₹ 5 per share. Dividend at the end of first year is expected to be ₹ 10 and growth rate will be 5%.

$$K_c = \frac{D_1}{P_0 \cdot f} + G \times 100$$

$$\approx \frac{10}{190.5} + 0.05 \times 100$$

$$\approx \underline{\underline{10.41\%}}$$

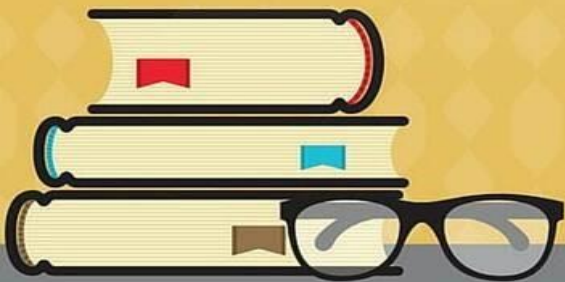
$$K_{\alpha} = \frac{D_1}{P_0} + q \times 100$$

$$= \frac{10}{200} + 0.05 \times 100$$

$$= \underline{\underline{10.5\%}}$$



**ALL THE
BEST!**





thank you!