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GATE 2021

GENERAL APTITUDE

धमाकेदार ट्रिक के साथ 🔥🔥



75

PROBABILITY - 6

6

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GATE | EE (CE)



Secured Score 99.86% in
CAT (Quantitative Section)



GATE/ESE:
7+ Years Teaching Experience
Mentored 25k+ Students for
GATE, ESE & PSUs



Subjects Taken:
General Aptitude
Engineering Mathematics
Digital Electronics



The diagram illustrates a study plan structure. At the center is a light blue circle containing a blue plus sign (+) and the word "PLUS". Red arrows point from various service icons to this central node. A large red oval encloses the word "ICONIC" and a yellow star icon. A red arrow points from "ICONIC" to the central node. Another red arrow points from a green "Preparatory Study Material" icon to the central node. A red arrow points from a white "Study Planner" icon to the central node. A red arrow points from a blue "Personal Coach" icon to the central node. A red arrow points from a purple "Crash Courses" icon to the central node. A red arrow points from a green "Weekly Tests" icon to the central node. A red arrow points from a purple "Doubt Solving" icon to the central node. A red arrow points from a green "English & Hindi" icon to the central node. A red arrow points from an orange "RIB" icon to the central node. A red arrow points from a red "Live Classes" icon to the central node. A red arrow points from a purple graduation cap icon to the central node.

ICONIC +

Study Planner
Customized study plan and track your performance.

Personal Coach
One on one guidance on preparation strategy.

Preparatory Study Material
Specialised notes & practice sets.

Study Booster Sessions
Receive Essential Guidelines via Regular workshops

Personalised Test Analysis
Get in-depth analysis of tests by section & question type.

Crash Courses

Live Classes

Weekly Tests

Doubt Solving

RIB

English & Hindi

AVAILUE
FREE

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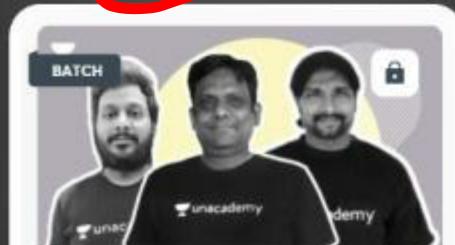


Civil Engg



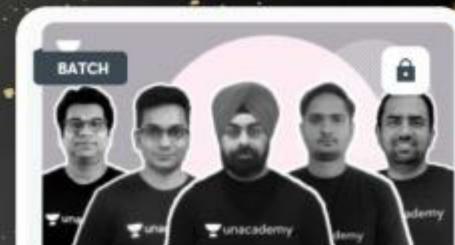
HINDI ENGLISH
Doubt Clearing Batch for GATE 2021 (Civil)

Started on Oct 19
Anirudh Singh Rathore and 2 more



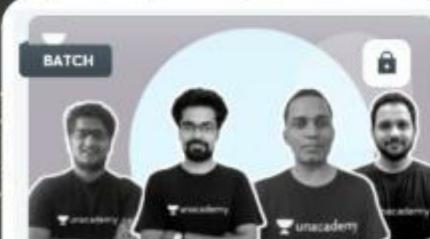
ENGLISH
Spark ESE Prelims 2021 (Civil) - Batch A (English)

Started on Nov 20
Praveen Kulkarni and 2 more



ENGLISH HINDI
Target ESE Prelims 2021 (Civil) - Batch C

Starts on Dec 7
Anirudh Singh Rathore



ENGLISH
GATE Rank Improvement Batch (Civil) 2021 - Part II

Started on Jul 1
Chetan Saxena and 3 more



ENGLISH
GATE Rank Improvement Batch (Civil) 2021 - Part I

Started on Jun 15
Chetan Saxena and 2 more

General Aptitude



Quanitative
Aptitude

Spatial
Aptitude

Verbal
Aptitude

Analytical
Aptitude

S:~PM

- Paper folding and Cutting
- Shape Matching – Two Dimensional
- Visual Comparison – Two Dimensional
- Group Rotation – Two Dimensional
- Combining Two Dimensional Shapes

- Cube Views in Three Dimensions
- Cubes in Two and Three Dimensions
- Other Solids in Two and Three Dimensions
- Block Counting in Three Dimensions
- Two-Dimensional Mirror Reflections

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General Aptitude

Quantitative
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Analytical
Aptitude

Verbal
Aptitude

Spatial
Aptitude



- Venn Diagram
- Syllogism
- Series
- Analogy
- Puzzle

- Coding & Decoding
- Distance & Direction
- Blood Relation
- Seating Arrangements
- Clock & Calendar

25

TEJAS BATCH (Starting From 25th Jan)

CRACK AAI (ATC) EXAM



KREATRYX GATE - EE, ECE, IN

Faculty	Subject	Date(from)	Date(to)	Time
Ankit Goyal	Physics	25th Jan	18th Feb	12:00 PM
Pallav Gaur	Physics	25th Jan	13th Feb	2:30 PM
Avinash Singh	Quantitative + Reasoning + Maths	25th Jan	24th Apr	7:30 PM
Vishal Soni	Maths & Physics	1st Feb	24th Apr	5:00 PM
Saket Verma	Physics	15th Feb	3rd March	2:30 PM

Note: 6 days in a week Monday - Saturday

AAI Junior Executive Quantitative Aptitude Syllabus

- Percentage
- Ratio & Proportion
- Mixture & Alligation
- Compound Interest
- Simple Interest
- Profit & Loss

- Number System
- Simplification
- HCF & LCM
- Mensuration
- Algebra
- Progression

- Partnership
- Time & Work
- Pipe & Cistern
- Speed Time & Distance
- Boat & Stream
- Averages

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AAI Junior Executive Reasoning Syllabus

- Series & Patterns
- Coding & Decoding
- Classification
- Analogy
- Venn Diagram
- Blood Relations
- Direction & Distance
- Calendars
- Order & Ranking
- Syllogism
- Statement & Conclusion
- Cubes & Dices
- Figure Counting
- Water & Mirror Image
- Paper Cutting & Folding
- Alphabet Test
- Puzzles
- Data Sufficiency
- Arithmetical Reasoning

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Analytical Aptitude

- Venn Diagram
- Syllogism
- Series
- Coding & Decoding
- Clock & Calendar
- Distance & Direction
- Blood Relation
- Seating Arrangements
- Puzzle

Quantitative Aptitude

- Time & Work
- Pipes & Cisterns
- Ratio & Proportion
- Number System
- Sequence & Series
- Average
- Time, Speed & Distance
- Percentage
- Profit, Loss & Discount
- Allegation & Mixture
- Powers, exponents and logarithms
- Algebra
- Permutation & Combination
- Probability
- Data Interpretation
- Mensuration and geometry

Spatial Aptitude

- Shape Matching - Two Dimensional
- Visual Comparison – Two Dimensional
- Group Rotation – Two Dimensional
- Combining Two Dimensional Shapes
- Cube Views in Three Dimensions
- Cubes in Two and Three Dimensions
- Other Solids in Two and Three Dimensions
- Block Counting in Three Dimensions
- Two-Dimensional Mirror Reflections
- Paper folding and Cutting

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Today's Class Agenda

► Questions based on Probability

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Definitions related to probability



- Sample Space ✓
- Event ✓
- Compound Event ✓
- Mutually Exclusive Events ✓
- Independent Events ✓
- Dependent Events ✓

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1) A man and his wife appear in an interview for two vacancies in the same post.

The probability of husband's selection is $(1/7)$ and the probability of wife's selection is $(1/5)$. What is the probability that only one of them is selected ?

A) $2/7$

B) $1/7$

C) $\frac{3}{4}$

D) $4/5$

$$H \rightarrow \frac{1}{7} \quad \left(1 - \frac{1}{7}\right) = \frac{6}{7}$$

$$W \rightarrow \frac{1}{5} \quad \left(1 - \frac{1}{5}\right) = \frac{4}{5}$$

$H W$ $H \bar{W}$ $\bar{W} H$ $\bar{W} \bar{H}$

$H \bar{W}$ or $\bar{W} H$

$$\frac{1}{7} \times \frac{1}{5} + \frac{1}{5} \times \frac{6}{7} = \frac{10}{35} = \frac{2}{7}$$



2) In a class, there are 15 boys and 10 girls. Three students are selected at random.

The probability that 1 girl and 2 boys are selected, is:

A) $21/46$

B) $1/5$

C) $3/25$

D) $1/50$

15 B + 10 G

$E \rightarrow$ Event of selecting 1 G & 2 B

Sample Size \rightarrow No of ways of selecting 3
Students out of 25

$$n(S) = \frac{1G \& 2B}{10C_1 \times 15C_2}$$

$$n(S) = 25C_3$$

$$P(E) = \frac{n(E)}{n(S)}$$

$$= \frac{10C_1 \times 15C_2}{25C_3} = \frac{21}{46}$$



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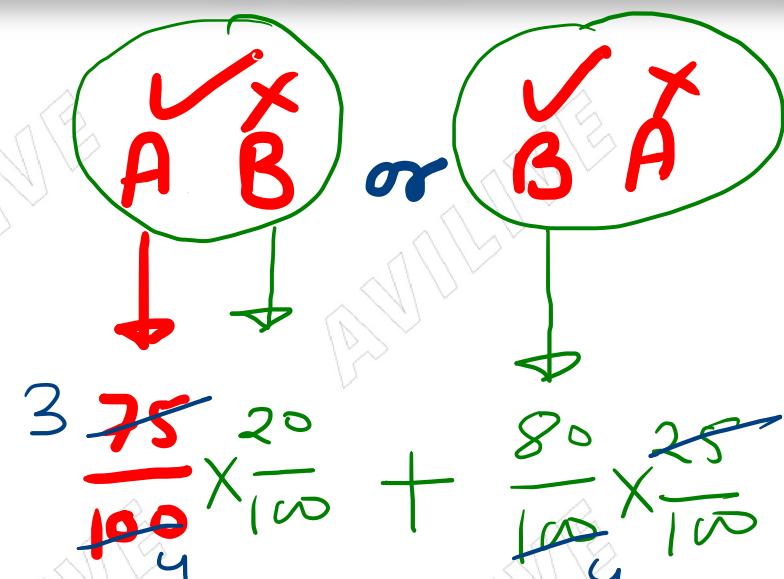
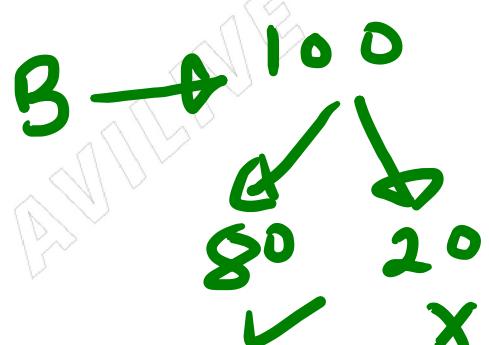
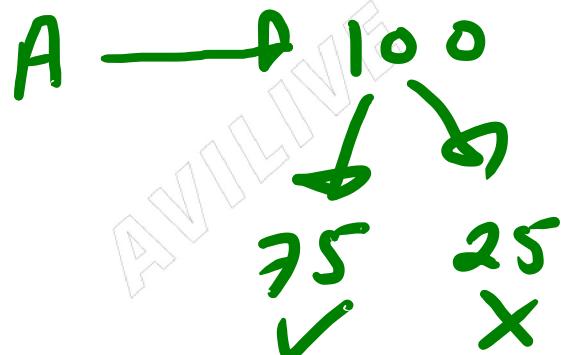
3) A speaks truth in 75% of cases and B in 80% of cases. In what percentage of cases are they likely to contradict each other, narrating the same incident

A) 30/100

B) 35/100

C) 45/100

D) 50/100



$$\frac{60 + 80}{400} = \frac{140}{400} = \frac{14}{40} = \frac{7}{20} = \frac{35}{100}$$



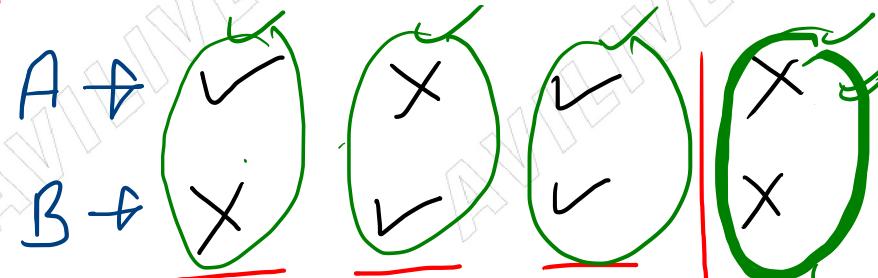
$$\# P(A \text{ solve a question}) \rightarrow \frac{3}{4}$$

① Probability that one question is solved

$$P(B \text{ solve a question}) \rightarrow \frac{2}{3}$$

Soln Either A or B

$$\frac{3}{4} + \frac{2}{3} = \frac{17}{12} > 1 \quad \times$$



I
A B

II
A B

III
A B

A B

(- $\frac{3}{4}$) (- $\frac{2}{3}$)

$$\frac{1}{4} \times \frac{1}{3} = \frac{1}{12}$$

$$\frac{3}{4} \left(-\frac{2}{3} \right) + \left(-\frac{3}{4} \right) \frac{2}{3} + \frac{3}{4} \frac{2}{3}$$

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$$1 - \frac{2}{12} = \frac{11}{12}$$

$P(A \text{ solves a question}) \rightarrow \frac{3}{4}$

$P(B \text{ solves a question}) \rightarrow \frac{2}{3}$

✓(2) Probability that both solve
the question?

A ✓
B ✓

$$\frac{3}{4} \times \frac{2}{3} = \frac{1}{2}$$

✓(3) Probability that exactly one
of them solve

A ✓ X or B ✓ X

$$\frac{3}{4} \times \left(1 - \frac{2}{3}\right) + \frac{2}{3} \times \left(1 - \frac{3}{4}\right)$$

$$\frac{3}{4} \times \frac{1}{3} + \frac{2}{3} \times \frac{1}{4}$$

$$\frac{5}{12}$$



4) A problem is given to three students whose chances of solving it are $1/2$, $1/3$ and $1/4$ respectively. What is the probability that the problem will be solved?

A) $\frac{1}{4}$

B) $\frac{1}{2}$

C) $\frac{3}{4}$

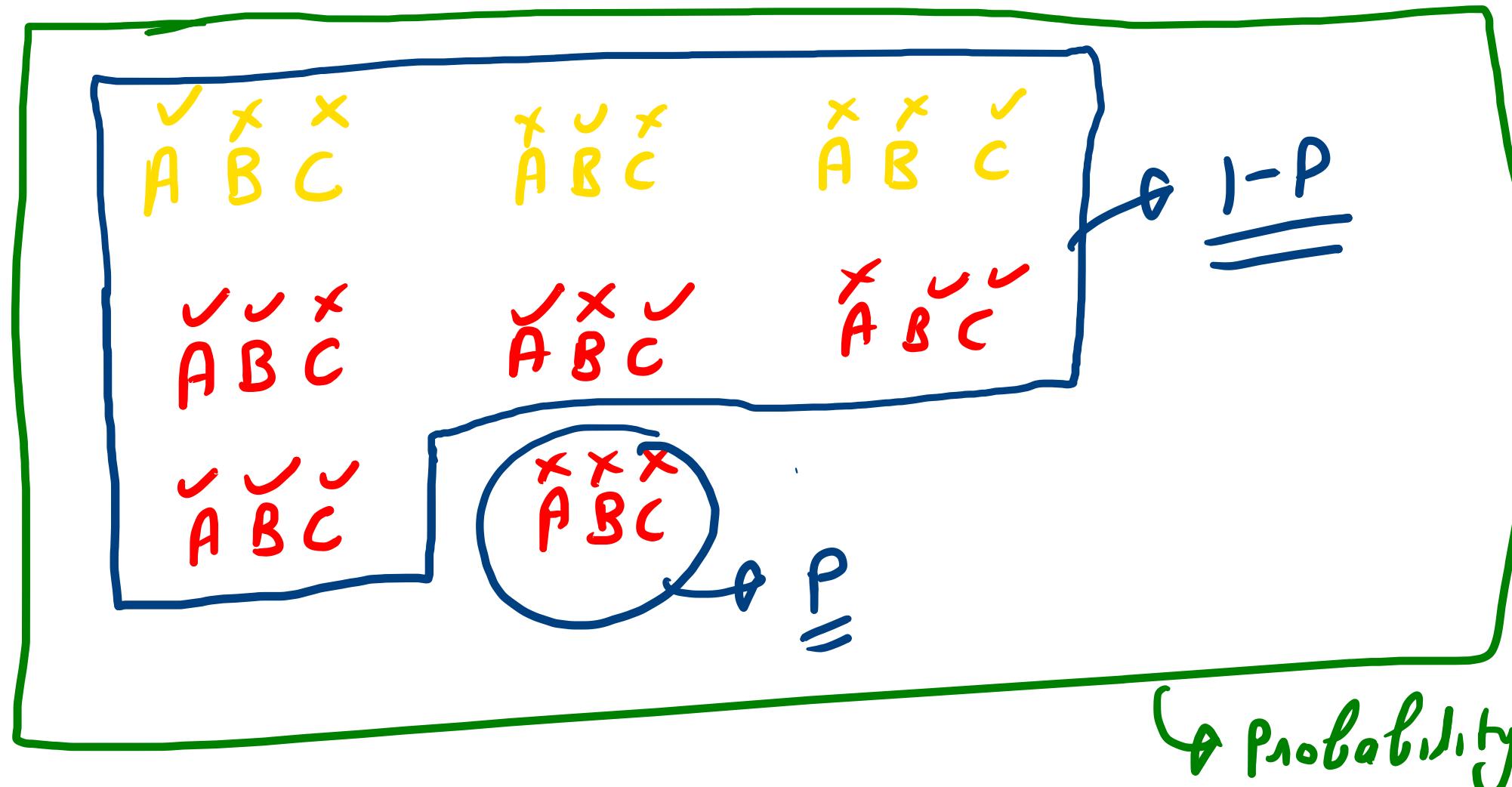
D) $\frac{7}{12}$

\checkmark A B C
 $\times \left(1 - \frac{1}{2}\right)$ $\left(1 - \frac{1}{3}\right)$ $\left(1 - \frac{1}{4}\right)$

X X X
 ~~$\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4} = \frac{1}{4}$~~

$P(\text{Solve question}) = 1 - \frac{1}{4}$

$= \frac{3}{4}$

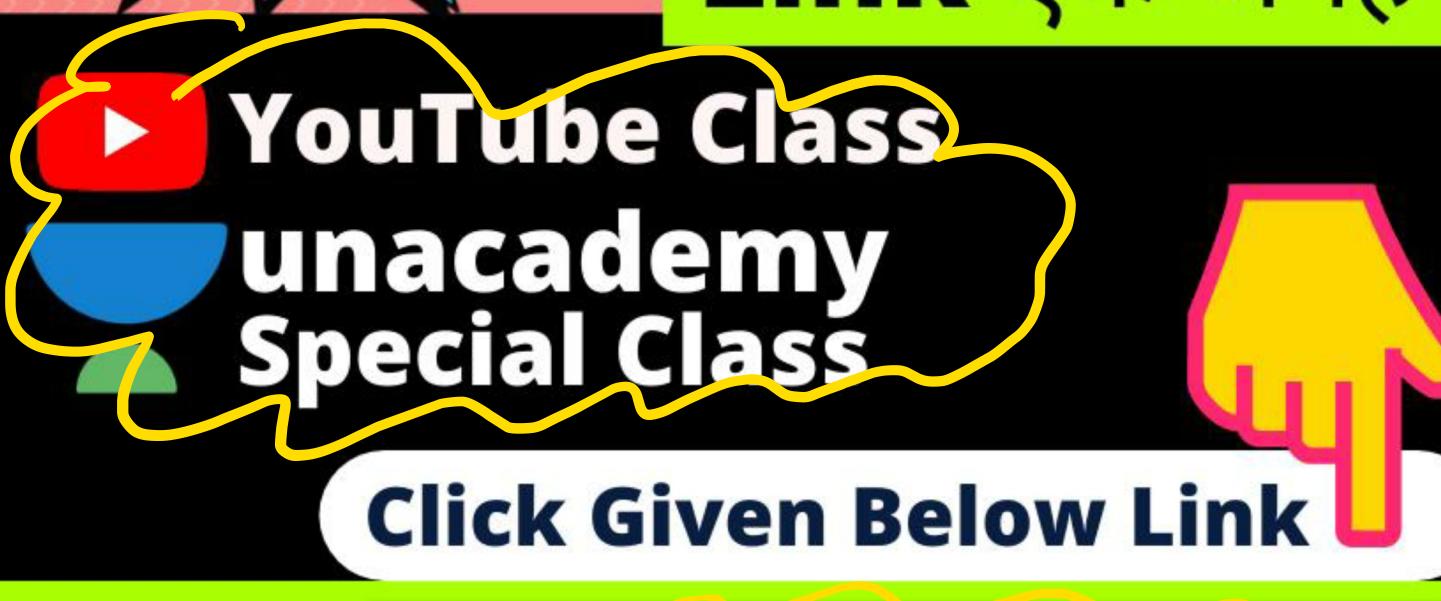


↳ Probability = 1

GATE-2021

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General Aptitude

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Quantitative
Aptitude

Spatial
Aptitude

Verbal
Aptitude

Analytical
Aptitude

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Avinash Singh

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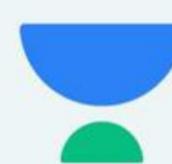


Educator highlights

- ★ Worked at GATE ACADEMY
- ★ Cracked GATE Exam Multiple time
- 📍 Lives in Durg, Chhattisgarh, India
- ⌚ Unacademy Educator since 29th September, 2020

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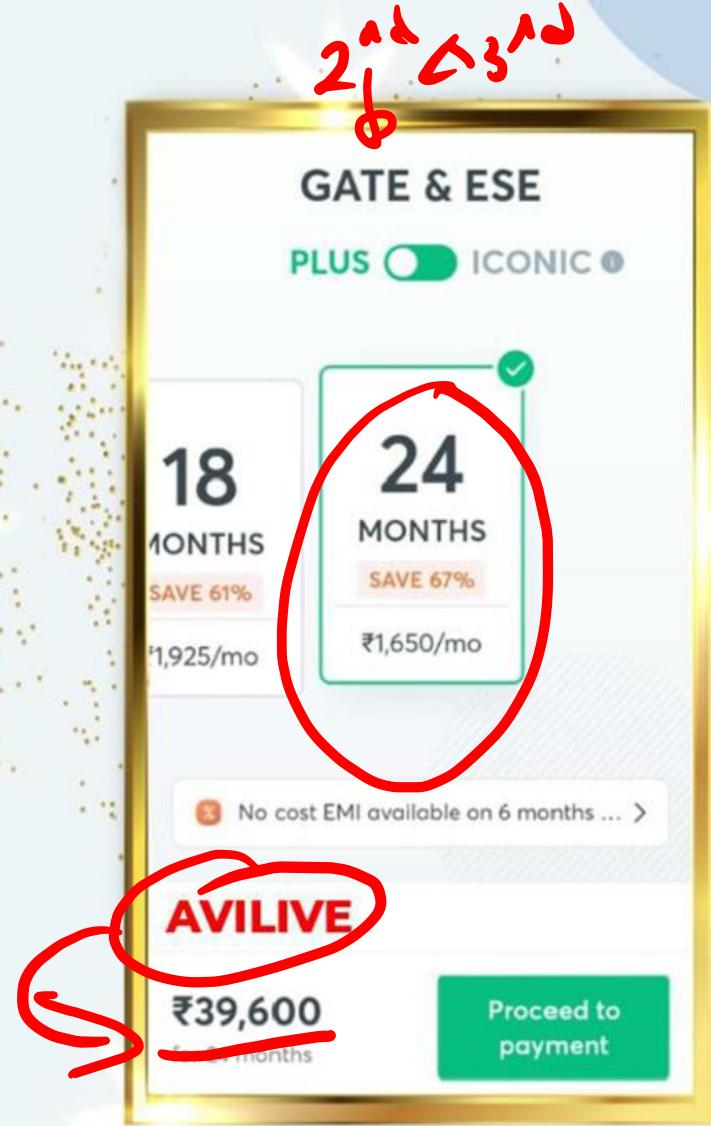
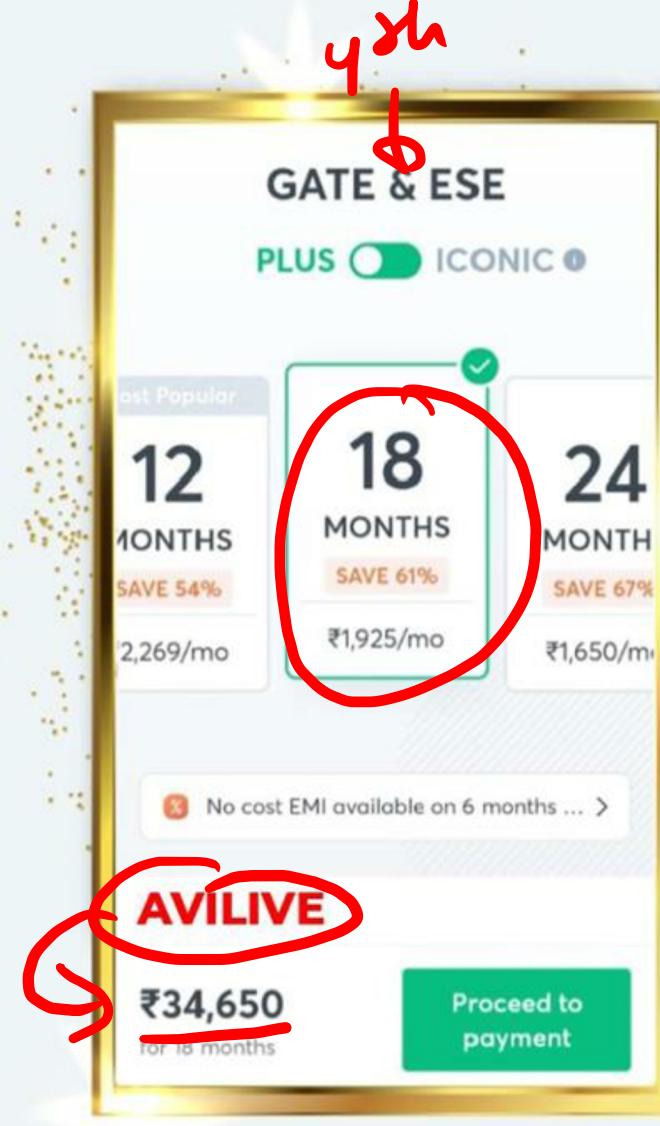
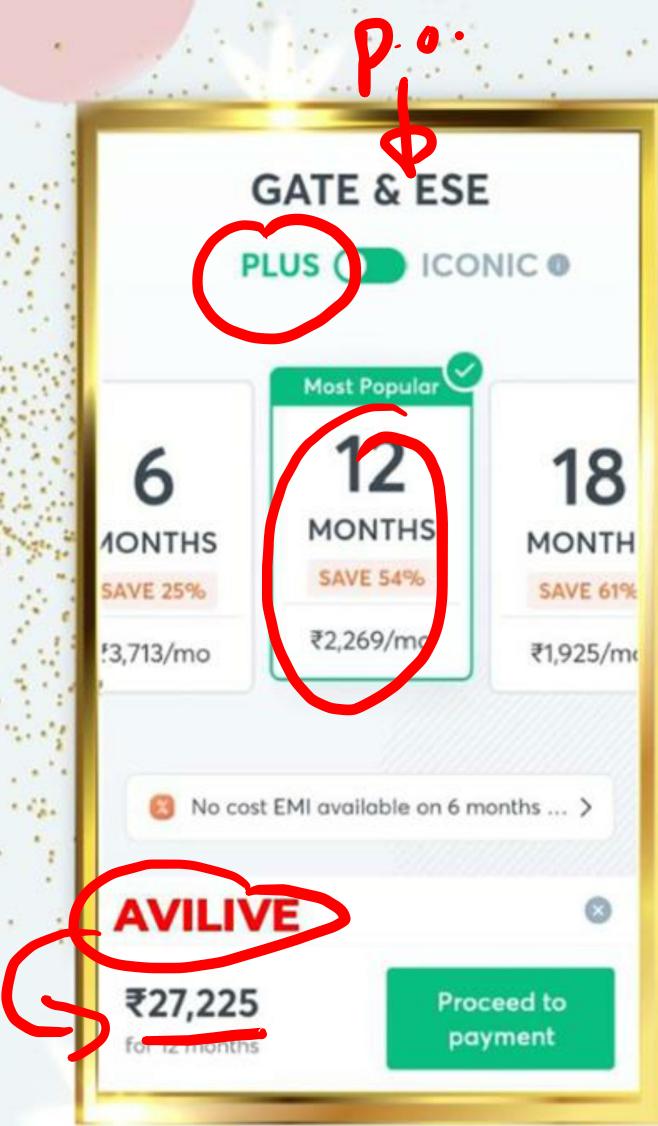
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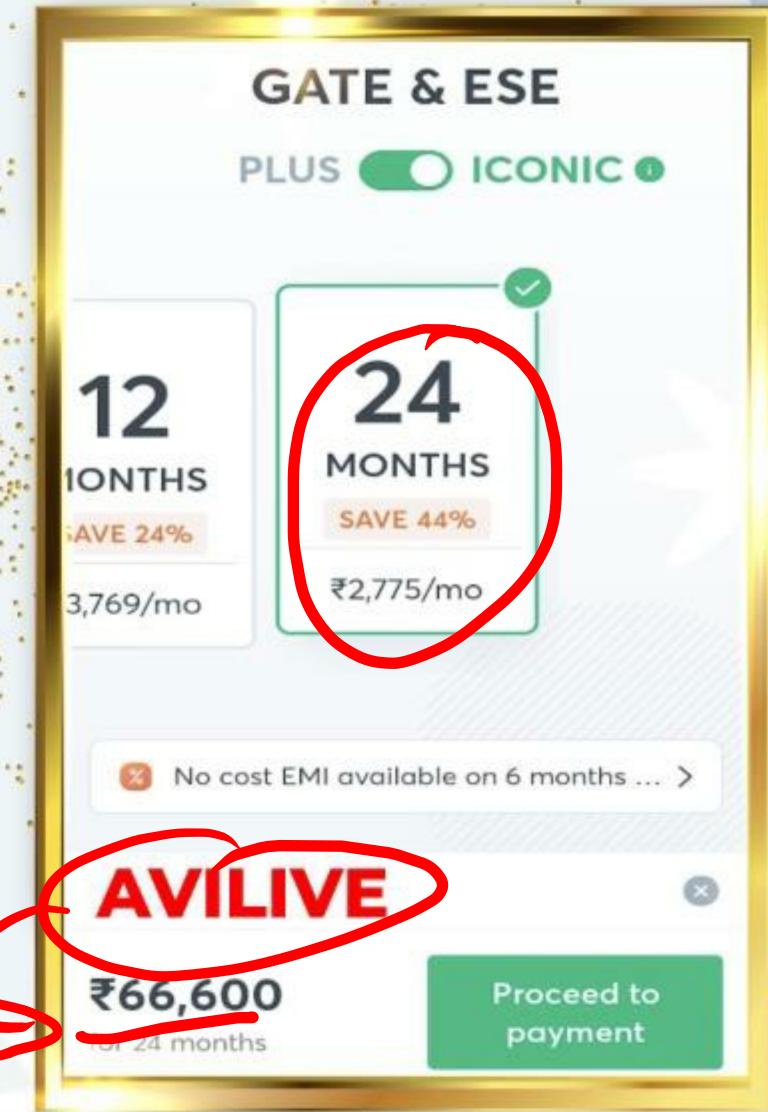
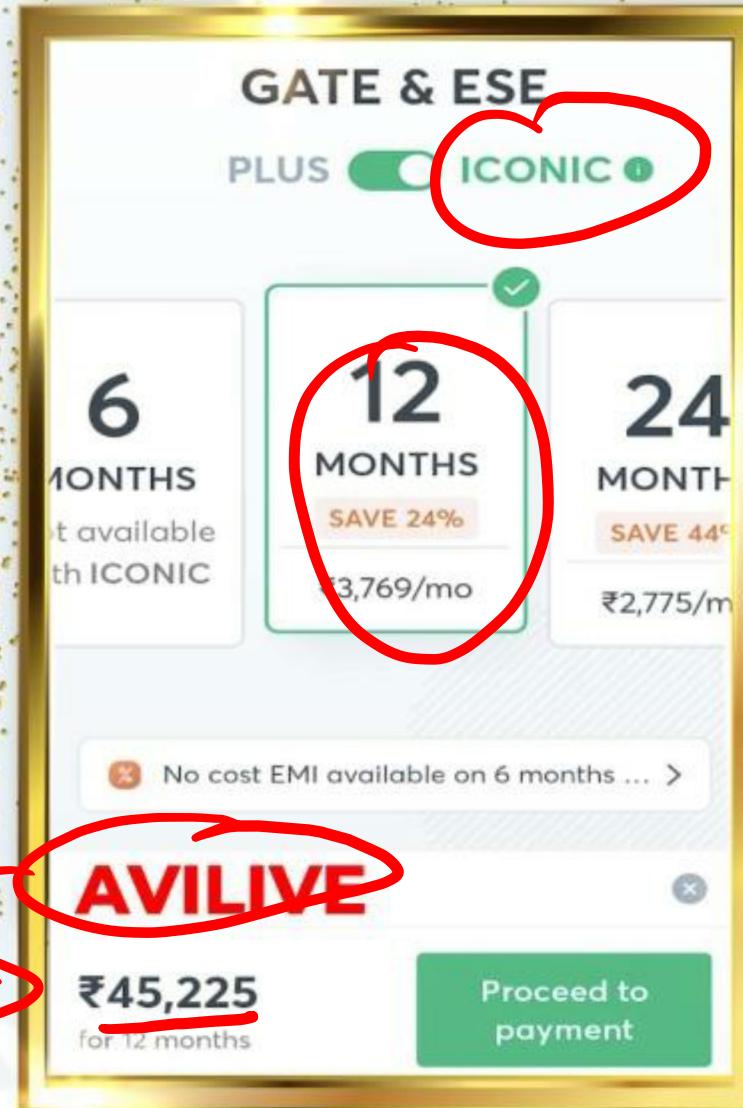
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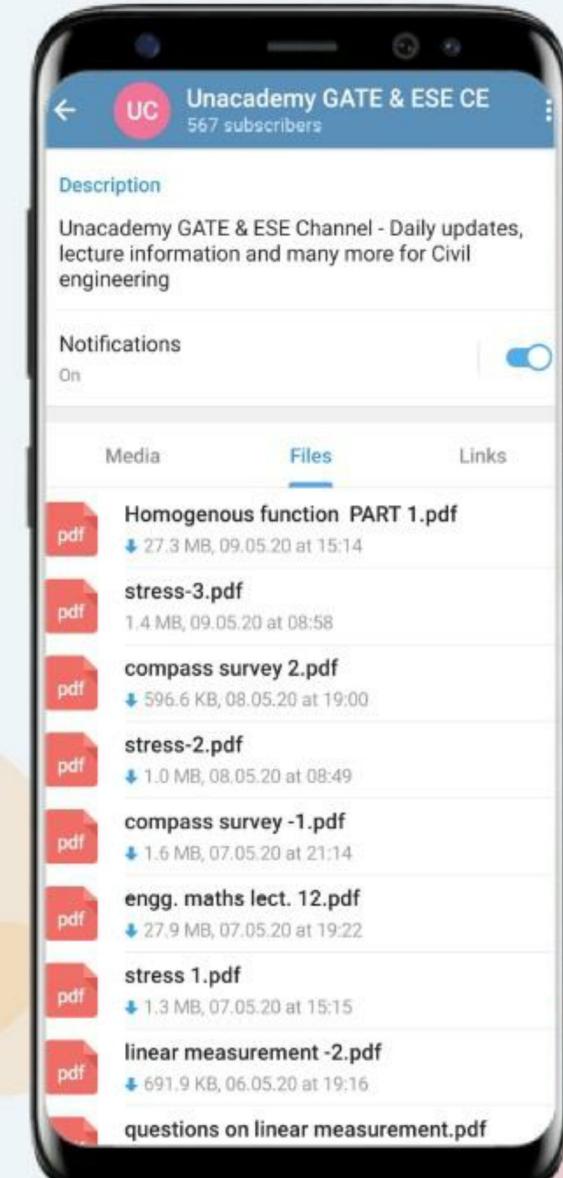
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