CLAT Community

daily QT

SECTIONAL TEST

17

DAYS TO GO FOR

CLAT 2027

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OUR RANKERS

1 in every 4 of CLAT Community's students are now placed in Top 5 NLUs.



ALL INDIA RANK **15**

SAHER GOLE



ALL INDIA RANK **17**

PARTHIVA SUSHANTH



ALL INDIA RANK **61**

MIHIKA AGGARWAL



ALL INDIA RANK **79**

SUHIT KENDURKAR



ALL INDIA RANK **86**

RIYA CHAUHAN



ALL INDIA RANK **100**

SHEIKH EHSAAN KHALEELULLAH



ALL INDIA RANK **104**

HRISHIT PODDAR



ALL INDIA RANK **137**

ROHAN YADAV



ALL INDIA RANK **146**

TEJAS ROY



ALL INDIA RANK **147**

ANIRUDDH BAJAJ



ALL INDIA RANK **189**

KABIR WADHWANI



ALL INDIA RANK **263**

CANCHI SISTLA AKSHARA



ALL INDIA RANK **319**

SHIVAM TRIPATHI



ALL INDIA RANK **413**

HARDIK GAUTAM



ALL INDIA RANK **NLSIU**

MANYA BHASKAR



ALL INDIA RANK **NLSIU**

NAMASHRITA GOPINATH



ALL INDIA RANK **NLSIU**

RONIL DHASAL



ALL INDIA RANK **NALSAR**

VEDA RAO



ALL INDIA RANK **NLSIU**

SAMANDAR SINGH



ALL INDIA RANK **NALSAR**

GANJI HAINDAVI



ALL INDIA RANK **NALSAR**

SAHISHNA



ALL INDIA RANK **NLSIU**

PRANAV. S

AND MANY MORE.

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OUR COURSES

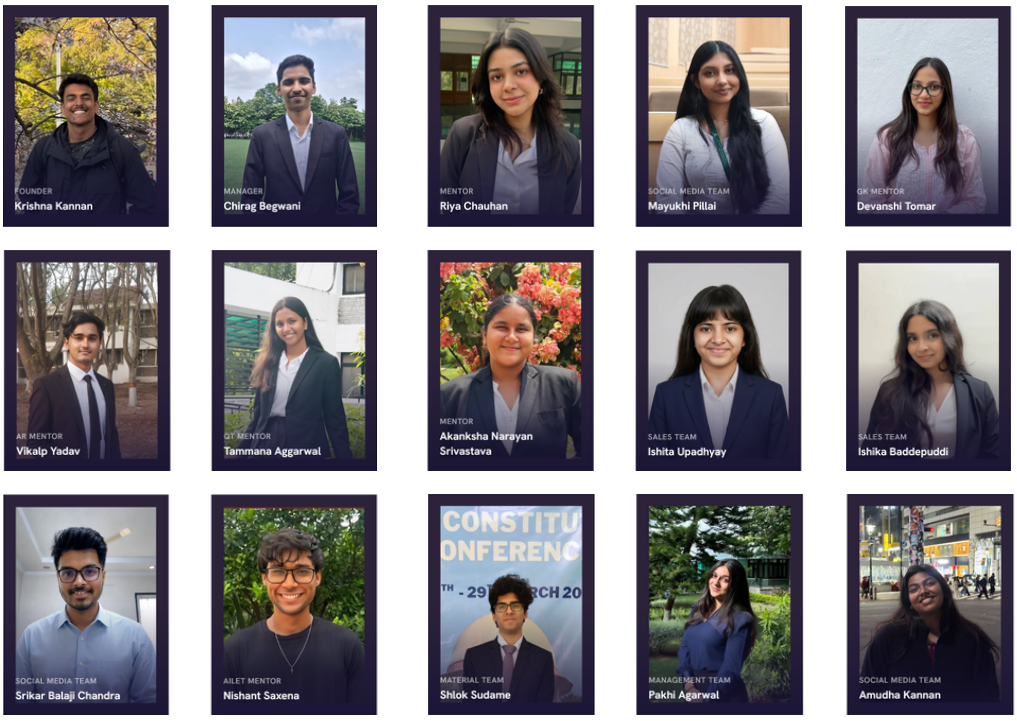








OUR MENTORS



MENTORS' NOTE

Good morning everyone,

If you're reading this, you're already doing something that thousands of CLAT aspirants never do—you've shown up today. That might sound like a small thing, but over the next few months you'll realise that success in CLAT is rarely decided by one brilliant mock or one 12-hour study session. It's decided by the hundreds of ordinary days where you choose to sit down and study even when you don't feel like it.

The entire CLAT Community team is rooting for you. Whenever you're stuck, ask doubts, discuss questions, and make use of the people around you. You don't have to prepare alone. We hope today's material helps you take one more step towards your dream.

Now stop reading this note and get to work. Your future self will thank you for the effort you put in today.

All the best.

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DAILY QT

PASSAGE 1 — FACTORIAL VAULT: DIVISORS OF 10!

Factorial Vault is a numbers club that studies the divisors of large factorial products. The club's model case is 10!, the product of all integers from 1 to 10. Members are encouraged to write such a number in prime-factored form before counting its divisors, since a prime-factored form lets them count divisors with a simple rule instead of listing them one by one.

The club's exercises divide the divisors of 10! into families. Some families are defined by parity, separating odd divisors from even ones. Others are defined by the exponents in the prime factorisation, such as divisors whose exponents are all even, which are exactly the perfect squares among the divisors. A further family consists of divisors that are multiples of 100, which are counted by fixing the exponents of 2 and 5 at or above the level needed for 100 and counting the remaining choices freely.

Members are warned against two common errors. The first is to count the multiples of 100 by dividing 10! by 100, which gives a single number and does not count the divisors. The second is to forget that a divisor which is both odd and a perfect square must have only even exponents on the odd primes. The club reminds members that every divisor is a positive integer, and that 1 counts as a divisor of every number.

1. The number of positive divisors of 10! is:

(A) 240

(B) 270

(C) 300

(D) 256

2. The number of odd positive divisors of 10! is:

(A) 24

(B) 28

(C) 30

(D) 32

3. The number of positive divisors of 10! that are perfect squares is:

(A) 30

(B) 24

(C) 36

(D) 20

4. The number of positive divisors of 10! that are multiples of 100 is:

(A) 56

(B) 64

(C) 70

(D) 80

5. The number of positive divisors of 10! that are perfect cubes is:

(A) 4

(B) 6

(C) 8

(D) 9

6. The number of positive divisors of 10! that are both odd and perfect squares is:

(A) 4

(B) 5

(C) 6

(D) 8

PASSAGE 2 — COMPOUND LEDGER: GEOMETRIC AVERAGE GROWTH

Compound Ledger is a finance workshop that teaches students how to summarise investments whose growth rates change from year to year. When an investment grows by different percentages in different years, the simple arithmetic average of the growth rates does not describe the true performance. The workshop instead uses the geometric average, which is the single constant rate that would produce the same final value over the same number of years.

The workshop's standard example is an investment of Rs 1000 that grows by 44% in the first year and by 125% in the second year. Students compute the value after each year by multiplying the balance by the growth factor, and they compare the result with two alternative calculations: one based on the arithmetic average of the two growth rates, and one based on a constant rate applied to both years. Only the geometric average matches the final value obtained from the actual sequence of growth factors.

Instructors emphasise that the growth factor for a rise of 44% is 1.44, and that a rise of 125% gives a factor of 2.25. Students are asked to explain why the arithmetic average overstates or understates the true rate, and to check each answer by reproducing the calculation year by year. Unless stated otherwise, growth is compounded annually and no withdrawals are made.

7. The value of an investment of Rs 1000 after the two years of growth of 44% and then 125% is:

(A) Rs 3240

(B) Rs 3200

(C) Rs 2560

(D) Rs 3500

8. The constant annual growth rate that gives the same final value over two years is:

(A) 84.5%

(B) 80%

(C) 75%

(D) 90%

9. The arithmetic average of the growth rates 44% and 125% is:

(A) 80%

(B) 84.5%

(C) 85%

(D) 82%

10. The value after two years if both years grow at the constant rate in Question 8, starting from Rs 1000, is:

(A) Rs 3000

(B) Rs 3240

(C) Rs 3500

(D) Rs 2880

11. The value after the first year, starting from Rs 1000 and growing by 44%, is:

(A) Rs 1200

(B) Rs 1440

(C) Rs 1600

(D) Rs 1300

12. The value after two years if the first year grows by 44% and the second year grows by 100%, starting from Rs 1000, is:

(A) Rs 2560

(B) Rs 3000

(C) Rs 3240

(D) Rs 2880



ANSWER KEY

PASSAGE 1 — FACTORIAL VAULT (DIVISORS OF 10!)

Q1: (B) 270 — $10! = 2^8 \times 3^4 \times 5^2 \times 7$, so the divisor count is $9 \times 5 \times 3 \times 2 = 270$.

Q2: (C) 30 — Odd divisors come from $3^4 \times 5^2 \times 7$, giving $5 \times 3 \times 2 = 30$.

Q3: (A) 30 — Even exponents: 2 has 5 choices (0, 2, 4, 6, 8), 3 has 3 choices, 5 has 2 choices and 7 has 1 choice. $5 \times 3 \times 2 \times 1 = 30$.

Q4: (C) 70 — Need 2^2 and 5^2 at least. Choices: 2 has 7 options, 3 has 5, 5 has 1, and 7 has 2. $7 \times 5 \times 1 \times 2 = 70$.

Q5: (B) 6 — Exponents that are multiples of 3: 2 has 3 choices (0, 3, 6), 3 has 2 (0, 3), 5 has 1 and 7 has 1. $3 \times 2 = 6$.

Q6: (C) 6 — Odd and square: the odd part needs even exponents on 3 (0, 2, 4: 3 choices), on 5 (0, 2: 2 choices), and on 7 (only 0). $3 \times 2 = 6$.

PASSAGE 2 — COMPOUND LEDGER (GEOMETRIC AVERAGE)

Q7: (A) Rs 3240 — $1000 \times 1.44 \times 2.25 = 3240$.

Q8: (B) 80% — $\sqrt{(1.44 \times 2.25)} = \sqrt{3.24} = 1.8$, so the constant rate is 80%.

Q9: (B) 84.5% — $(44 + 125)/2 = 84.5$.

Q10: (B) Rs 3240 — $1000 \times 1.8 \times 1.8 = 3240$.

Q11: (B) Rs 1440 — $1000 \times 1.44 = 1440$.

Q12: (D) Rs 2880 — $1440 \times 2 = 2880$.



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