CLAT Community

daily QT

SECTIONAL TEST



24 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

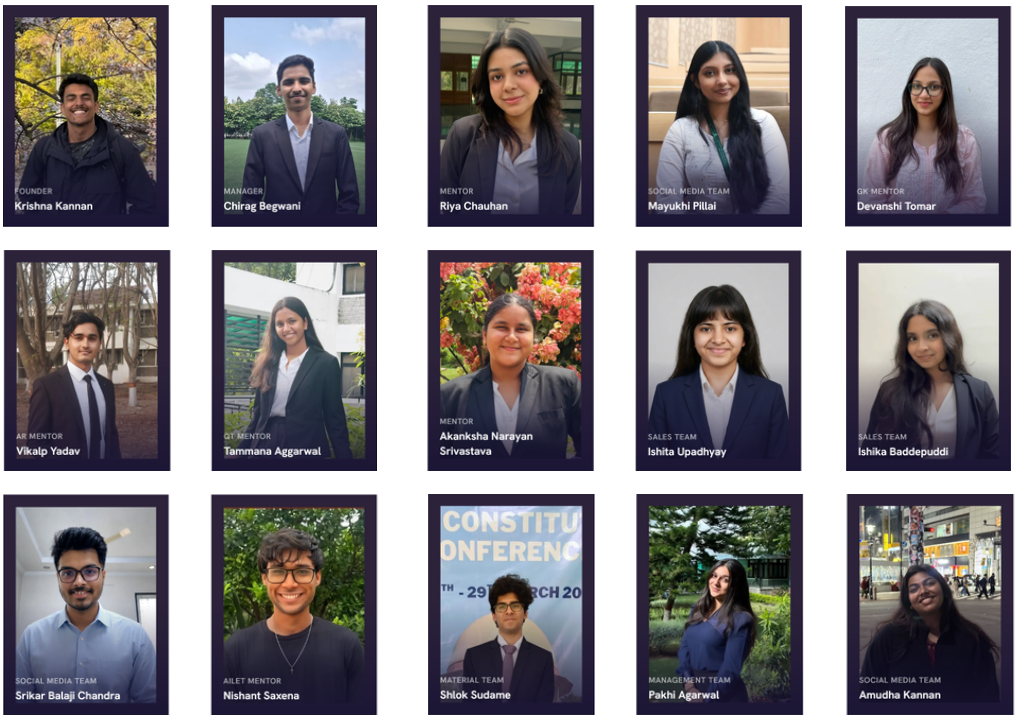








OUR MENTORS



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 — SERIAL LEDGER: DIGIT OCCURRENCES IN A RANGE OF TAGS

Serial Ledger is a software firm that numbers product tags from 1 to 500, and its quality auditors check how often particular digits appear across the whole range. A tag's number is written in ordinary decimal form, without leading zeros, so the tag 7 has one digit, the tag 42 has two digits, and the tag 365 has three digits. Auditors count two different things: the total number of times a digit appears, and the number of tags in which it appears at least once.

The distinction matters because a tag may contain the same digit more than once. The number 77, for example, contributes two occurrences of the digit 7 but only one tag. Auditors therefore keep separate tallies. They also examine tags that contain a digit exactly twice, since such tags are flagged for manual inspection. A further check counts tags in which every digit is different, which the firm uses to test its numbering software.

The auditors' reports are read by managers who do not always follow the counting rules, so the firm insists on precise definitions. Unless stated otherwise, the tags run from 1 to 500 inclusive, the number 0 is not a tag, and each occurrence of a digit is counted separately.

1. The total number of times the digit 7 appears among the tags 1 to 500 is:

(A) 95

(B) 100

(C) 105

(D) 90

2. The number of tags, from 1 to 500, in which the digit 7 appears at least once is:

(A) 95

(B) 100

(C) 91

(D) 105

3. The total number of times the digit 0 appears among the tags 1 to 500 is:

(A) 88

(B) 91

(C) 95

(D) 100

4. The number of tags, from 1 to 500, in which the digit 7 does not appear is:

(A) 395

(B) 400

(C) 405

(D) 410

5. The number of tags, from 1 to 500, in which the digit 7 appears exactly twice is:

(A) 4

(B) 5

(C) 6

(D) 7

6. The total number of times the digit 7 appears among the tags 1 to 100 is:

(A) 20

(B) 19

(C) 18

(D) 21

PASSAGE 2 — CUBE ARCHIVE: SUMS OF CUBES & THEIR PATTERNS

Cube Archive is a historical collection of mathematical tables that the library keeps for students of number theory. One of its most studied sequences is formed by adding the cubes of consecutive positive integers. The archive's curators observed that these partial sums have a remarkable form, since each sum equals the square of a sum of consecutive integers, and this relation allows large sums to be computed quickly without adding every cube individually.

Visitors are often asked to use this relation to find the value of a partial sum, to locate the first point at which the sum exceeds a given threshold, and to compare the sums of cubes with sums of other powers. Some exhibits ask for the sum of cubes over a block of consecutive integers, which is found by subtracting one partial sum from a later one. Other exhibits concentrate on the cubes of odd integers only, which form a separate pattern worth examining.

The curators remind visitors that the relation applies to cubes of positive integers starting from 1, and that a block sum must always be taken from the correct starting point. Unless stated otherwise, every sum in this passage begins at 1 and runs through the stated final integer.

7. The sum $1^3 + 2^3 + \ldots + 10^3$ equals:

(A) 2025

(B) 3025

(C) 3125

(D) 2925

8. The smallest positive integer n for which $1^3 + 2^3 + \ldots + n^3$ exceeds 10000 is:

(A) 13

(B) 14

(C) 15

(D) 16

9. The sum of the cubes of the odd integers 1, 3, 5, 7 and 9 is:

(A) 1225

(B) 1125

(C) 1325

(D) 1025

10. The positive integer n for which $1^3 + 2^3 + ... + n^3$ equals 2025 is:

(A) 7

(B) 8

(C) 9

(D) 10

11. The sum $11^3 + 12^3 + 13^3 + 14^3 + 15^3$ equals:

(A) 10125

(B) 11375

(C) 9725

(D) 12025

12. The value of $(1^3 + 2^3 + ... + 20^3)$ divided by $(1 + 2 + ... + 20)$ is:

(A) 190

(B) 200

(C) 210

(D) 220

ANSWER KEY

PASSAGE 1 — SERIAL LEDGER (DIGIT OCCURRENCES)

Q1: (B) 100 — Units digit 7 occurs 50 times (7, 17, ..., 497) and tens digit 7 occurs 50 times (70–79, 170–179, ..., 470–479), giving 100 in total.

Q2: (A) 95 — Counting tags containing a 7 at least once, the complement has 405 tags with no 7, so 500 − 405 = 95.

Q3: (B) 91 — Digit 0 occurrences in 1 to 500 total 91 across the units, tens and hundreds places.

Q4: (C) 405 — 500 − 95 = 405.

Q5: (B) 5 — The five tags containing two 7s are 77, 177, 277, 377 and 477.

Q6: (A) 20 — Units digit 7 gives 10 times (7, 17, ..., 97), and tens digit 7 gives 10 times (70–79), so 20 in total.

PASSAGE 2 — CUBE ARCHIVE (SUMS OF CUBES)

Q7: (B) 3025 — The sum equals $(10 \times 11/2)^2 = 55^2 = 3025$.

Q8: (B) 14 — The sum up to 13 is $91^2 = 8281$ and the sum up to 14 is $105^2 = 11025$.

Q9: (A) 1225 — 1 + 27 + 125 + 343 + 729 = 1225.

Q10: (C) 9 — The sum up to 9 is $45^2 = 2025$.

Q11: (B) 11375 — The sum from 1 to 15 is $120^2 = 14400$ and the sum from 1 to 10 is 3025. Their difference is 11375.

Q12: (C) 210 — The sum of cubes up to 20 is $210^2 = 44100$, and the sum of integers up to 20 is 210. The ratio is 210.



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