



VIDHIGYA

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CLAT 2024 **RANBHOMI** *THE FINAL SPRINT*

— THE CLAT COMBAT —
THE MATHEMAGICIAN



QUANTITATIVE TECHNIQUES (DI)

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THE CLAT COMBAT

Quatitative Technique 2

Directions (1-5): Read the following information carefully and answer the questions that follow.

An election was conducted in the Vidhan constituency in which five people A, B, C, D and E contested. The total no. of voters were 12000 out of which $\frac{1}{3}$ rd did not vote. A received 16% of the total votes polled but received a total of 200 invalid votes. The person B received 20% of the total votes and of the total votes he received, 120 were invalid. The person C got 24% of the total votes, out of which 150 votes were invalid. The fourth candidate D, got 18% of the total votes polled. D also received a total of 160 invalid votes. The candidate E received 22% of the total votes but also received a total of 180 invalid votes.

1. What is the total no. of valid votes received by all of the five people?
 (a) 7520 (b) 7190 (c) 7740 (d) 7370
2. The no. of invalid votes received by E is what percent of the total no. of votes received by C?
 (a) 9.375% (b) 82.29% (c) 10.16% (d) 72.31%
3. The no. of invalid votes received by B is what percent of the valid votes received by A?
 (a) 9.375% (b) 115.62% (c) 11.11% (d) 72.97%
4. There is another constituency named Vidhi where elections were held on the same day as the Vidhan constituency. In this election a total of six candidates took part. These candidates were C1, C2, C3, C4, C5 and C6. The total no. of valid votes received by C1, C2, C3, C4 and C5 is same as the no. of valid votes received by the candidates E, D, C, B and A respectively in the elections held in the Vidhan constituency. The no. of valid votes received by the last candidate C6 is the average of the valid votes received by the other five candidates who took part in the election in the Vidhi constituency. What is the no. of valid votes received by the candidate C6 in this election?
 (a) 1100 (b) 1200 (c) 1300 (d) None of these
5. Using the additional information provided in the question above, determine the no. of candidates who received more valid votes than the candidate C6 in the elections held in the Vidhi constituency.
 (a) 1 (b) 2 (c) 3 (d) 4

1.Ans. b

Sol. COMMON EXPLANATION

The no. of people who did not vote = $12000 * \frac{1}{3} = 4000$

The total votes polled were = $12000 - 4000 = 8000$

CANDIDATE	VOTES RECEIVED	INVALID VOTES	VALID VOTES
A	16% = 1280	200	1080
B	20% = 1600	120	1480
C	24% = 1920	150	1770
D	18% = 1440	160	1280
E	22% = 1760	180	1580

Total no. of valid votes = $1080+1480+1770+1280+1580 = 7190$

Hence, option (b) is correct.

2.Ans. a

Sol. Following the COMMON EXPLANATION

Invalid votes of E = 180

Votes received by C = 1920

Required % = $\frac{180}{1920} = 9.375\%$

Use approximation

Our answer should be less than 10%

Hence, option (a) is correct.

3.Ans. c

Sol. Following the COMMON EXPLANATION

The no. of invalid votes received by B = 120

Valid votes received by A = 1080

Required % = $\frac{120}{1080} = \frac{1}{9} = 11.11\%$

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Hence, option (c) is correct.

4. Ans. d

Sol. Following the COMMON EXPLANATION

The no. of valid votes received by C6 = $\frac{1080 + 1480 + 1770 + 1280 + 1580}{5} = 1438$

Hence, option (d) is correct.

5. Ans. c

Sol. Following the COMMON EXPLANATION

Votes received by the candidate C6 = 1438

Thus, the no. of persons who received more valid votes than C6 is 3.

Hence, option (c) is correct.