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How to Solve Ranking Questions of Logical Reasoning for CLAT?

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Ranking is an important topic of Reasoning Section for Clat Examinations. In this article, we will discuss **important concepts & approach of Order and Ranking questions** with the help of formulae, tips and latest pattern questions.

Important Points to be noted for Order and Ranking:

Consider your Left Hand as the Left side and your Right Hand as the Right side.

In order & ranking, the data related to ranks of a person/persons from the left side/right side, top, bottom are given and the total number of persons are asked.

In some questions, the total number of persons are given and rank of the person from the left side, right side, top, bottom are asked. So **different types of questions can be formed** based on the rank/position of the persons in a row. Generally, four types of questions are formed from this topic which are mentioned as following –

1. Total number of persons based on the given data
2. The rank of a person from the left or right side
3. Number of persons in between two persons
4. Minimum/Maximum number of persons in a row.
5. The number of persons on either side of a particular person.
6. The rank of a person after interchanging the position
7. Ascending/Descending Order of persons according to their categories (age, height, ranking, marks etc)

Concepts of Order and Ranking Topic

Type1 :

To find the total number of persons, when the ranks of one person are given from both sides of the row.

- Total number of persons = R1 + R2 – 1

R1 and R2 are ranks of a person (common person) from both (left and right) sides.

Example: In a row of persons, Position of Aditya is 30th from the left side of the row and position from the right side of the row is 34th. Find the total number of persons in the row.

Solution:

Total no. of person= (Position of Aditya from left + Position of Aditya from right) – 1

Total no. of person = (30 + 34)-1= 64-1 = **63**

To find the position of a person from the opposite side, when rank from one side and total no. of persons are given.

Position of a person from opposite side = (Total no. of persons – Position of the same person from the given side) +1

Example: In a row of 42 persons, Position of Ramesh from the right side of the row is 22nd. What is the position of Ramesh from the left side of the row?

Solution: Position of Ramesh from left=(Total number of persons- Position of Ramesh from the right side) +1 = (42-22) + 1 = **21**

Type 2

To find the total number of persons in a row, when ranks of two persons and the number of the persons who are sitting between these two persons are given.

There are two Types possible under this type which are as follows –

1) Not overlapping Type: When total number of students > (left position of one person+right position of another person)

Total number of persons = (Sum of positions of two different persons from both sides) + number of persons between two persons OR

Number of persons between two persons = Total number of persons – (Sum of positions of two different persons from both sides)

Example: In a row of 62 persons. Ranu is 24th from the left side of the row and Raman is 20th form the right side of the row. Find out the number of persons sitting between them?

Solution: No. of Persons between Ranu and Raman = 62 – (24+20)= 62-44 = 18

2) Overlapping Type: When (left position of one person+ right position of another person) > Total number of students

Total number of persons = (R1+R2) – (number of persons between two persons+2) OR

Number of Persons between two different persons = (Sum of positions of two different persons from both sides) -Total no. of Persons –2

Example: In a row of 62 persons. Ranu is 36th from the left side of the row and Raman is 29th form the right side of the row. Find out the number of persons sitting between them?

Solution: No. of Persons between Ranu and Raman =(36+29)-62-2= 65-62-2 = 1

Type 3

To find the number of persons after or before a person whose rank is given–

Number of persons after or before the given person in a row = Total no. of persons – Position of the same person from another side

Example: In a row of 20 persons, the position of Riya from the left side of the row is 6th. Find the no. of persons after Riya in the row?

Solution: Number of persons after Riya = Total no. of persons – Position of A from left

⇒ No. of persons after A in the row = 20 – 6 = 14

Type 4

When in a row, the positions of two persons is given and their positions are interchanged and after interchanging the position of 1st person is given from the same side as before interchanging.

New Position of the 2nd person from the same side as before interchanging = Position of 2nd person from the same side before interchanging + (Position of the 1st person after interchanging – position of the 1st person before interchanging from the same side

Total Number of persons = Sum of the positions of a person (same person) from both sides – 1

Number of persons between two persons = Difference in the positions of a person(same person) whose position from the same side before and after interchanging is given – 1

Example: In a row of girls, Chetna is 15th from the left and Shruti is 23rd from the right. If they interchange their positions, then Chetna becomes 18th from the left. Then at what position will Shruti be from the right?

Total no of girls in a row = Left End + Right End – 1
= 18 + 23 – 1 = 40
Shruti's position from right end = Total girls – Left end + 1
= 40 – 15 + 1 = 26

Example 2: Ragavh and Prakash are standing in a row of persons. Ragavh is 12th from the left side and Prakash is 18th from the right side of the row. If they interchanged their positions Ragavh becomes 25th from left. Find these-

1. a) The new position of Prakash from the right side
2. b) Total number of persons
3. c) Number of persons between them

Solution: A) Ragavh Position changes from 12th to 25th from the left end. So there is an increase of 13 ranks. Since Ragavh and Prakash both are interchanged their positions so there must be same increase in ranks. So new position of Prakash from right side= 18 +13= 31

Solution B) In this question, Ragavh position changes from 12 to 25 from left. That means 24 persons are standing from his left side. Now Ragavh is at Prakash's position which is 18th from the right side. That means 17 persons are standing from his right. Add all these left and right= 24+17+1(Ragavh's own)=42 total persons

Solution C) Number of persons between Ragavh & Prakash = (Position of Ragavh from left after interchanging– Position of Ragavh from left before interchanging) – 1 ⇒ No. of persons between Ragavh & Prakash = (25 – 12) – 1 = 13 – 1 = 12

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