Welcome to our blog on Order and Ranking, an essential topic in Logical Reasoning that plays a crucial role in all the SSC and Bank exams. Approximately 4 - 6 questions are certain to appear from this topic in the exam, making it imperative for you to grasp the concepts of Order and Ranking thoroughly and practice a variety of questions.

In this blog, we will comprehensively cover all the theoretical concepts and logical aspects of this topic. Additionally, we have included previously asked questions from various SSC and Bank exams, to help you get a feel for what to expect. So, let's dive into the world of Order and Ranking and boost your exam preparation.

"Order and Ranking" is an important topic of the Logical Reasoning section. In this topic, questions related to the position or rank of a person or an object are asked with respect to the left - to - right or top - to - bottom arrangement or vice-versa. In this chapter, we will learn all the types of questions that are asked in the exam. We will see how learning some short tricks and rules can fetch more marks in exams in lesser time. The base of Order and Ranking questions revolves around the arrangement and positioning/ranking of persons/objects.

While solving problems under this section, the use of the following symbols is required:
1.Greater/Heavier/Taller/Higher/More (>)
A > B means
A is greater/heavier/taller/higher/more than B.
2.Smaller/Lighter/Shorter/Lower/Less (<)
A < B means
A is smaller/lighter/shorter/lower/less than B.
3.Equal (=)
A = B means
A is equal to B.

Further, the questions can be moulded into four major types:
1.Comparison Based
2.Ranking Based
3.Time Sequence Based
4.Coded-Based

Comparison Based

In this type of order and ranking question, you need to compare different quantities and get the correct answer after comparing them.

Height - Based Comparison

In this type of question, the heights of different people are given and we have to answer based on comparing their heights.

Example 1: The heights of five students are measured. They are - Ravi, Raghu, Shivam, Vikas, and Sumit. Shivam is shorter than the four others. Raghu is shorter than Ravi but taller than Sumit. Vikas is taller than Shivam but shorter than Sumit.

Who is the tallest person?

1. Ravi

2. Raghu

3. Sumit

4. Vikas

5. Shivam

Ans: The correct answer is option 1 i.e. Ravi
1. Shivam is shorter than four others.
__ > __ > __ > __ > Shivam
2. Raghu is shorter than Ravi but taller than Sumit.
Ravi > Raghu > Sumit
3. Vikas is taller than Shivam but shorter than Sumit.
Sumit > Vikas > Shivam
Thus, the final ranking will be:
Ravi > Raghu > Sumit > Vikas > Shivam
Thus, Ravi is the tallest person.

Age - Based Comparison

In this type of question, we have to answer the questions based on comparing the ages of people (like A is younger or older than B).

Example 1: Sonam is older than Renu. Komal is younger than Renu. Priya is older than Sonam. Who is the eldest of them?

1. Sonam

2. Priya

3. Renu

4. Komal

5. Cannot be determined

Ans: The correct answer is option 3 i.e. Priya
According to the question, the arrangement is as follows:

Priya
Sonam
Renu
Komal

From the above arrangement, Priya is the eldest of them.
Hence, option 3 is the correct answer.

Weight - Based Comparison

In this type of question, the weights of different people are given and we have to answer based on comparing their heights.

Example 1: The weights of five students are measured. They are - P, Q, R, S, and T. S is shorter than the four others. Raghu is shorter than Ravi but taller than Sumit. Vikas is taller than Shivam but shorter than Sumit.

Who is the lightest person?

1. P

2. Q

3. R

4. S

5. T

Ans: The correct answer is option 5 i.e. T
S is heavier than the four others.
S > _ > _ > _ > _
R is lighter than P but heavier than Q.
P > R > Q
Q is not the lightest person.
S > P > R > Q > T
T is the lightest person.
Hence, the correct answer is T.

Merit - Based Comparison

In this type of question, the scores of different people are given and we have to answer based on comparing their marks.

Example 1: Among B, F, J, K, and W, each one of them has scored different marks. J scored less than only F. 2 people scored more than W but less than J. K did not score the second lowest marks. Who among them scored the second lowest marks?

1. F

2. J

3. B

4. K

5. W

Ans: The correct answer is option 3 i.e. B
J scored less than only F.
F > J > _ > _ > _
2 people scored more than W but less than J. (That means only two people scored between J and W.)
F > J > _ > _ > W
K did not score the second lowest marks. (That means K scored more than B)
F > J > K > B > W
Clearly, B scored the second lowest marks.
Hence the correct answer is B.

Comparison Based on Two Elements

In this type of question, we have to answer the questions based on comparing any two elements like height or weight, weight or score, score or age, etc.

Example 1: Six girls D, E, F, G, H and J are of different heights and weights. The tallest girl is not the heaviest and the shortest girl is not the lightest. Only two people are taller than D and two people are lighter than G. J is the heaviest person. F is taller than only E and lighter than only J. J is taller than H. E is lighter than H. Who are the lightest and the tallest girls?

1. F, H

2. D, G

3. J, E

4. D, H

5. J, E

Ans: The correct answer is option 2 i.e. D, G Six girls D, E, F, G, H, and J are of different heights and weights.
The tallest person is not the heaviest and the shortest person is not the lightest. Only two people are taller than D and two people are lighter than G. J is the heaviest person. F is taller than only E and lighter than only J. J is taller than H. E is lighter than H.

Height	Weight
G	J
J	F
D	G
H	G
F	E
E	D

Thus, the lightest girl is D and the tallest girl is G.

Ranking Based

In this type of order and ranking question, you need to find the rank or position of a person from left, right, top or bottom side, minimum and maximum number of persons, number of people sitting between two people (overlapping or non overlapping case), the position of one of the persons if two people interchange their seats, etc.

Rule 1: To find the total number of persons/objects in a group/class/row when ranks/positions of one person/object are given from both sides.

Total number of persons = [(Sum of positions of the same person from both sides) – 1]

Example: In a row, Rachit was standing 21th position from the left. Virat was standing 17th position from the right side. Akash was standing 9th position to the left of Rachit and 6th position to the right of Virat. Then, how many number of boys were standing in the row?

1. 23

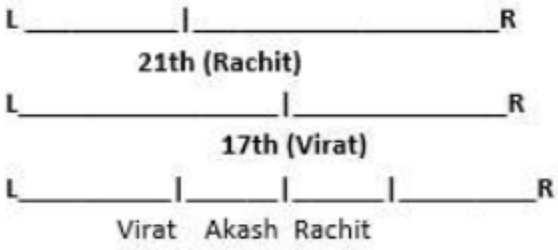
2. 22

3. 21

4. 20

5. 25

Ans: The correct answer is Option 2 i.e. 22



So, Virat's position from the left = 6th
Then, Total number of students = L + R - 1 = 6 + 17 - 1 = 22 students

Rule 2: To find the position/rank of a person/object from the opposite side, when the position/rank from one side is given as well as the total number of persons/objects is given.
Position of person from opposite side = (Total no. of persons - Position of person from given side) + 1

Example: In a class of 75 students, where boys are twice that of girls. Dhanuja ranked thirteenth from the top. If there are four girls ahead of Dhanuja, how many boys are after her in rank?

1. 40

2. 42

3. 44

4. 46

5. Cannot be determined

Ans: The correct answer is option 2 i.e 42.
Reference: The number of girls and boys in the class is 25 and 50 respectively.
According to the question, there are 4 girls ahead of Dhanuja.
12 - 4 = 8 boys are ahead of her.
Hence, the number of boys ranked after Dhanuja = 50 - 8 = 42

Rule 3: To find the total number of persons/objects when ranks/positions of two persons/objects and the number of persons/objects between these two are given.
Case 1: OVERLAPPING

When (Left position of one person + Right position of another person) > (Total no. of persons)
Total no. of persons = Sum of positions of 2 different persons from both sides - No. of persons between these 2 persons
Or
No. of persons between 2 persons = Sum of the position of
these 2 persons from both sides - Total no. of persons – 2

Example: In a row, P is 5th from the right end. Q is 12th from the left end. If 13 people are sitting in the row, then how many people are sitting between P and Q?

1. 3

2. 17

3. 4

4. 2

5. 19

Ans: The correct answer is option 4 i.e. 2
Here, (5 + 12) > 13
So, this is a case of overlapping.
Now,
No. of persons between 2 persons = Sum of position of
these 2 persons from both sides - Total no. of persons-2
X = (5 + 12) - 13 - 2
X = 17 - 13 - 2
X = 2
Hence, two persons are sitting between P and Q.

Case 2: NON-OVERLAPPING

When (Total no. of persons) > (Left position of one person + Right position of another person
Total no. of persons = Sum of the position of 2 different persons from both sides + No. of persons between these 2 persons
Or
No. of persons between 2 persons = Total no. of persons -
Sum of position of these 2 persons from both sides

Example: In a row, P is 5th from the right end. Q is 12th from the left end. If 33 people are sitting in the row, then how many people are sitting between A and B?

1. 5

2. 16

3. 18

4. 34

5. 2

Ans: The correct answer is option 2 i.e. 16.
Here, (5 + 12) < 33
So, this is a case of non-overlapping.
Now,
No. of persons between 2 persons = Total no. of persons -
(Sum of position of these 2 persons from both sides)
X = 33 - (5 + 12)
X = 33 - 17
X = 16
Hence, there are 16 persons between P and Q.

Rule 4: If the total number of persons/objects is asked and the positions of two different persons from different sides are given, then it is always a case of "Cannot be Determined" because in this case, we do not know whether there will be overlapping or not.

Example: Certain number of people are sitting in a row where A is 7th from the left end and S is 12th from the right end. What is the total number of people in the row?

1. 3

2. 24

3. 19

4. 29

5. Cannot be determined

Ans: The correct answer is option 5 i.e. Cannot be determined

Rule 5: Swapping of position to find the order/ ranking: In this case, the initial positions of two persons are given, and then their positions are interchanged. After interchanging the position of the first person is also given from the same side as before interchanging.
A new position of 2nd person from the same side as before interchange = Position of 2nd person from the same side before interchange + (Position of 1st person after interchange - Position of 1st person from the same side before interchange)
Or
No. of persons between 2 persons = Difference in positions of a person (same person) whose positions from the same side before and after interchange is given– 1

Rule 6: To find the maximum and a minimum number of persons/objects in a row/column when the positions/ranks of two different persons are given from different sides and the number of persons/objects between these two is also given.
1.i) When (Smaller Rank - Number of persons in middle) e" 2,
Simple case will give the maximum number of people
(Rank 1 + Rank 2) + No. of persons in middle

Example: In a class, P's rank is 9th from the left and B's rank is 8th from the right. If 6 students are sitting between them then calculate the maximum number of students in the class.

1. 24

2. 7

3. 23

4. 45

5. 20

Ans: The correct answer is option 3 i.e 23
(8 – 6) = 2
So, the maximum number of students in the class is (9 + 8) + 6 = 23
1.ii) The overlapping case will give a minimum number of people
(Rank 1 + Rank 2) - No. of persons in middle

Example: In a class of 100 students, P is 72th from the left and B is 54th from the right and the number of students sitting between them is 32. Calculate the number of minimum persons in the row.

1. 90

2. 88

3. 91

4. 92

5. 80

Ans: The correct answer is option 4 i.e. 92
(72 + 54) = 126 > 100.
So, it is a case of overlapping. Thus, the minimum number of students in the row is (72 + 54) – (32 + 2)= 92.
2) When (Smaller Rank - Number of persons in middle) < 2,
Only simple case is valid for minimum or maximum number of people
(Rank 1 + Rank 2) + No. of persons in middle

Example: In a class, P's rank is 8th from the left and B's rank is 7th from the right. If 5 students are sitting between them then calculate the minimum number of students in the class.

1. 22

2. 21

3. 20

4. 26

5. 32

Ans: The correct answer is option 2 i.e. 21
(8 – 7) = 1 < 2. So, the minimum number of students in the class is (8 + 7) + 6 = 21.

Time Sequence Based

In these types of questions, we have to determine the duration (date/day/ month/time) on which the particular event is scheduled based on the information given in the question that is remembered by different people.

Example: Muskan remembers that her college fest is after 5 pm but before 8 pm on Monday whereas his sister Prerna remembers that Muskan's college fest is after 6 pm but before 9 pm on Monday. At which time is Muskan's college fest scheduled?

1. 6 pm

2. 7 pm

3. 8 pm

4. 9 pm

5. Cannot be determined

Ans: The correct answer is Option 2 i.e. 7 pm
According to Muskan, her college fest is on either 6 pm or on 7 pm.
According to Prerna, Muskan's college fest is either on 7 pm or on 8 pm.
Clearly, Muskan's college fest is at the time which is common to both the above groups, i.e., 7 pm.

Coded Based

In this type of order and ranking, different codes are provided for comparing height/weight/age/score/etc. We have to decode those codes and answer the questions based on them.

Example: Read the following information carefully and answer the following questions. In a certain code,
A @ B means, A is taller than B.
A # B means, A is shorter than B.
There are five persons namely P, Q, R, S, and T. All are arranged as per their heights in decreasing order. Where,
Q # R, T @ S, S # P, P @ R
Note: T is taller than only one person.

Who among the following is the tallest?

1. Q

2. P

3. R

4. T

5. S

Ans: The correct answer is Option 2 i.e. P
Given codes: Q # R, T @ S, S # P, P @ R,
T is taller than only one person.
Decoding of the codes: R > Q, T > S, P > S, P > R
_ > _ > _ > _ >_
_ > _ > _ > T >_ (T is taller than only one person.)
_ > _ > _ > T > S (T @ S)
P > R > Q > T > S (P @ R, Q # R)
We get, P > R > Q > T > S
P is the tallest.

With this, we come to the end of this chapter. We have seen all types of Order and Ranking questions that come in the exam. Now all you need to do is practice more and more questions and excel in your exam.

Order and Ranking Previous Year Questions of SSC

Direction (1 – 3): Read the following information and answer the following questions below.

Bindu is standing exactly in the middle of a line of girls. Asha is 6th to the left of Bindu and Ritu is 16th to Bindu's right.
[RRB NTPC CBT - 1 2016]

Q:1 What should be the minimum number of girls in the line?

1.22

2.28

3.33

4.32

Q:2 What is Asha's position in the line?

1.22

2.12

3.18

4.11

Q:3 What is Bindu's position in the line?

1.11

2.14

3.16

4.17

Q:4 Among five boxes A, B, C, D, and E; B is thrice as heavy as A. C is 40 kg heavier than E. D is three and a half times as heavy as E and C is five times as heavy as A. The weight of E is
40 kg. Which object is the lightest of all and what is its weight? **[SSC CGL Tier 1 2022]**

1.B 50 kg

2.A 16 kg

3.B 12 kg

4.D 125 kg

Q:5 Five friends, H, I, J, K, and L, are top-rank holders of a school. The rank of H is just above the rank of K and just below the rank of L. I is at the top rank and J is not at the lowest rank. Who among them is at the lowest rank? **[SSC CGL Tier 1 2022]**

1.M

2.L

3.K

4.J

Q:6 For a trophy, 16 teams participate, number 1-16 according to their rankings. In the qualifier matches, the teams face their immediate next lower ranked team e.g. team 1 plays team -2 team -3 plays team -4 and so on. It has been observed that the lower-ranked team always wins. Which two teams might play a semi-final match? **[RRB NTPC CBT - 2 2018]**

1.Team-12 and Team-16

2.Team-7 and Team-8

3.Team-2 and Team-4

4.Team-8 and Team-16

Q:7 Read the following information carefully and answer the questions given below it:
(I) Govind is shorter than Ashish but taller than Kamal.
(II) Naren is shorter than Kamal.
(III) Jayanth is taller than Naren.
(IV) Ashish is taller than Jayanth.

Who among them is the shortest? **[RRB NTPC CBT - 2 2018]**

1.Ashish

2.Govind

3.Kamal

4.Naren

Order and Ranking Memory Based Questions of Bank

Direction: (1 to 3) Read the given passages carefully and answer the following questions.

Seven students of a class - Devesh, Kamal, Tanshu, Akshama, Vinit, Uday, and Ravi get their weights checked in a physical education assessment. Ravi is heavier than two people. Uday is heavier than Tanshu but lighter than Vinit, who is not the heaviest person. Tanshu is heavier than Ravi but lighter than Akshama. Six people are heavier than Devesh. Atleast five people are heavier than Kamal but lighter than Akshama. **[RRB OA Prelims 2020]**
Q:1 How many people are lighter than Vinit but heavier than Ravi?

1.0

2.1

3.2

4.3

5.4

Q:2 Who is the lightest person in the group?

1.Devesh

2.Kamal

3.Vinit

4.Uday

5.Ravi

Q:3 Who is the heaviest person in the group?

1.Uday

2.Tanshu

3.Akshama

4.Kamal

5.Vinit

Direction: (4 to 7) Read the given passages carefully and answer the following questions.
Eight persons namely P, Q, R, S, T, U, V, and W are having different weights i.e. 60 kg, 68 kg, 47 kg, 53 kg, 59 kg, 62 kg, 74 kg, and 69 kg, but not necessarily in the same order. T is the heaviest among all the persons. Only three persons have less weight than Q. The weight of S is a multiple of 23. The weight of U is a prime number more than R but less than V. The weight of both R and V is a prime number. The weight of W is more than P. **[RRB OA Prelims 2019]**

Q:4 Who weighs 59 kg?

1.Q

2.R

3.U

4.V

5.P

Q:5 How many person's weight is/are between Q and T's weight?

1.Three

2.Two

3.One

4.Four

5.None of these

Q:6 How many persons weigh more than W?

1.One

2.Three

3.Two

4.Four

5.None of these

Q:7 Who weighs 60 kg?

1.R

2.U

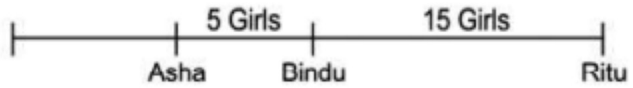
3.V

4.P

5.Q

Solutions of SSC Previous Year Questions

(Q:1 – Q:3) Bindu is standing exactly in the middle of a line of girls.
Asha is 6th to the left of Bindu and Ritu is 16th to Bindu's right.
Since any information about the girl at any end is given, we suppose Ritu is sitting at right end.



Since Bindu is exactly at the middle, there must be 16 girls to Bindu's left also.

Q:1 (3) Minimum number of girls in the line = 16 + 16 + 1 = 33

Q:2 (4) Asha will be at 11th position from left side.

Q:3 (4) Bindu will be at 17th position from left side.

Q:4 (2) According to the question;
B = 3ª, C = 40 + E, D = 3.5E, C = 5ª, E = 40 kg
So,
C = 40 + 40 = 80 kg, D = 3.5 (40) = 140 kg
From C = 5A
80 = 5A
A = 16 kg
Now, B = 3A
B = 3(16) = 48 kg
So, object A is the lightest and its weight is 16 kg.

Q:5 (3) According to the question, the arrangement is as follows:
The rank of H is just above the rank of K and just below the rank of L.
I is at the top rank and J is not at the lowest rank.
I J L H K
From the above arrangement, K is at the lowest rank.

Q:6 (1) Matches that are played:
1 vs 2, 2 vs 3, ..., 15 vs 16.
It is given that the lower-ranked team always wins.
Ex: In 1 vs 2 match, 2 wins.
So, 2, 4, 6, 8, 10, 12, 14 and 16 win.
Again matches are played between them.
2 vs 4, 6 vs 8, 10 vs 12, 14 vs 16.
The lower-ranked team wins.
So, 4, 8, 12, and 16 wins.
So, the semi-final is played between 4 and 8, 12 and 16.
Here, Team 4 will play against Team 8
and Team 12 will play against Team 16.

Q:7 (4) According to the question, the arrangement is as follows:
Case 1: Asish > Govind > Kamal > Jayanth > Naren
Case 2: Asish > Jayanth > Govind > Kamal > Naren
Case 3: Asish > Govind > Jayanth > Kamal > Naren
From the above arrangement, Naren is the shortest.

Solutions of SSC Previous Year Questions

(Q:1 - Q:3):
1. Ravi is heavier than two people.
Ravi > ___ > ___
2. Uday is heavier than Tanshu but lighter th an Vinit, who is not the heaviest person.
Vinit > Uday > Tanshu
3. Six people are heavier than Devesh.
___ > ___ > ___ > ___ > Ravi > ___ > Devesh
4. Tanshu is heavier than Ravi but lighter than Akshama.
5. Atleast five people are heavier than Kamal but lighter than Akshama.
Akshama > Vinit > Uday > Tanshu > Ravi > Kamal > Devesh

Q:1 (3)

Q:2 (1)

Q:3 (3)

(Q:4 - Q:7):
1) T is the heaviest among all the persons i.e. 74 kg.
2) Only three persons have less weight than Q. So Q weighs 60 kg.
3) The weight of S is a multiple of 23 i.e. 69 kg
4) The weight of U is a prime number more than R but less than V. It means U weighs 53 kg.
5) The weight of both R and V is a prime number. It means R weighs 47 kg and V weighs 59 kg.
6) The weight of W is more than P.
So W weighs 68 kg and P weighs 62 kg.
Now we have our final arrangement.

Weights	Persons
47 kg	R
53 kg	U
59 kg	V
60 kg	Q
62 kg	P
68 kg	W
69 kg	S
74 kg	T

Q:4 (4)

Q:5 (1)

Q:6 (3)

Q:7 (5)

This article has provided you with valuable insights into the world of Order and Ranking in logical reasoning. We sincerely hope that you have found this blog useful and that it has contributed to enhancing your understanding of this crucial topic. As you continue to gear up for your upcoming exam, we encourage you to share your thoughts, your performance in the previous year questions, and any doubts you may have in the comments section below.

Stay tuned, as KD Live promises to bring you more such informative blogs with comprehensive study material and a thorough analysis of previous year questions on all the topics of Logical Reasoning section. Best of luck with your exam preparations, and may you excel in your endeavors!