







Linear Seating Arrangement

SEATING/PLACING ARRANGEMENTS

In this type of questions, some clues regarding seating or placing sequence (linear/circular) of some persons or items are given. You are required to form the proper sequence using these clues and answer the questions accordingly.

EXAMPLE 1

Directions: Read the following information carefully and answer the questions given below.

- (i) A, B, C, D, E, F, G and H are standing in a row facing North.
- (ii) B is not neighbour of G.
- (iii) F is to the immediate right of G and neighbour of E.
- (iv) G is not at the extreme end.
- (v) A is sixth to the left of E.
- (vi) H is sixth to the right of C.



1. Who amongst the following are neighbours?

a) AB b) CG c) FH d) CA

2. Which one amongst the following defines the position of D?

- a) Fourth to the right of
- b) Third to the right of A
- c) Neighbour of B and
- d) To the immediate left of B.

3. Which of the following is true?

- a) C is to the immediate left of A
- b)D is neighbour of B and F
- c) G is to the immediate right of D
- d) A and E are at the extreme ends.

SOLUTION:

 $\begin{array}{l} \text{GEF} \rightarrow (\text{iii}) \\ \text{A......} E \rightarrow (\text{v}) \\ \text{C.....} H \rightarrow (\text{vi}) \\ \text{Now (v) and (vi) may be combined as AC } \rightarrow \text{EH} \rightarrow (\text{vii}) (a) \\ \text{or CA......} HE \rightarrow (\text{vii}) (b) \\ \text{But (vii) (b) is ruled out because of statement (iv). Combining (iii) and (vii) (a), we get \\ \text{AC} GFEH \rightarrow (\text{viii}) \\ \text{Now, from (ii) and (viii), we get ACB - GFEH } (ix) \\ \text{Now the blank can be filled by 'D', hence the arrangement will be ACBDGFEH} \\ \text{Ans:} \rightarrow 1 (d) \rightarrow 2 (b) \rightarrow 3 (c) \end{array}$

LINEAR SITTING ARRANGEMENT

In linear (row) arrangement problems, we have to arrange the data linearly. The arrangement t is done only on one "axis" and hence, the position of people or objects assumes importance in terms of order like first position, second position, last position. In this type of arrangement, we take directions according to our left and right.

There are two types of problems asked in competitive exams, from this topic.

- 1. **One Row arrangement -** In one row arrangement problems, people or objects sit in a row either facing North or South. So, we have to make arrangement according to the direction of face of the people.
- 2. Two Row arrangement In two row arrangement problems, there are two groups of people or objects sit in a two rows and people sitting in a first row facing North or South and vice versa.

1. ONE ROW ARRANGEMENT

Now, let us understand with the figure. Four people A, B, C, D are sitting in a row facing

North direction.



From the above figure, we can draw these conclusions:

- (i) A and D are sitting at the extreme end of the line.
- (ii) Right of A= B, C, D.
- (iii) Left of D = C, B, A
- (iv) A is sitting immediate left of B, B is sitting immediate left of C. C is sitting immediate left of D.
- (v) B is sitting immediate right of A. C is sitting immediate right of B. D is sitting immediate right of C.
- (vi) A is sitting second to the left of C. B is sitting second to the left of D.
- (vii) C is sitting second to the right of A. D is sitting second to the right of B.
- (viii) A is sitting third to the left of D. D is sitting third to the right of A. Four people A, B, C, D are sitting in a row facing South direction

Right
$$+$$
 $+$ $+$ $+$ Left \downarrow Facing South

From the above figure, we can draw these conclusions:

- (i) A and D are sitting at the extreme end of the line.
- (ii) Left of A = B, C, D.
- (iii) Right of D = C, B, A
- (iv) A is sitting immediate right of B. B is sitting immediate right of C, C is sitting immediate right of D.
- (v) B is sitting immediate left of A, C is sitting immediate left of B. D is sitting immediate left of C.
- (vi) A is sitting second to the right of C. B is sitting second to the right of D.
- (vii) C is sitting second to the left of A. D is sitting second to the left of B.
- (viii) A is sitting third to the right of D. D is sitting third to the left of A.

2. TWO ROW ARRANGEMENTS

Now, let us understand with the figure. Eight people are sitting in two parallel rows containing four people each in row, such a way that there is an equal distance between adjacent persons. In row 1, A, B, C, and D are sitting and all of them are facing South. In row 2, P, Q, R, and S are sitting and all of them are facing North.

Row 1 Right
$$\stackrel{A}{+}$$
 $\stackrel{B}{+}$ $\stackrel{C}{+}$ $\stackrel{D}{+}$ Left Facing South
Row 2 Left $\stackrel{P}{+}$ $\stackrel{Q}{-}$ $\stackrel{R}{-}$ Right Facing North

From the above figure, we can draw these conclusions:

- (i) A; D, and P, S are sitting extreme end of the line.
- (ii) A is sitting opposite to P. B is sitting opposite to Q. C is sitting opposite to R. D is sitting opposite to S.
- (iii) A and S is sitting diagonally opposite to each other.
- (iv) D and P is sitting diagonally opposite to each other.
- (v) B and R is sitting diagonally opposite to each other.
- (vi) C and Q is sitting diagonally opposite to each other.