



DIRECTIONS AND ARRANGEMENTS

Ranchan Kaul

Directions

Q. James went in his car to meet his friends Mr Bond. He Drove 30 km towards north and then 40 km towards west. He then turned southwards and covered 8 km. Further he turned towards east and moved 26 km. Finally, he turned right and drove 10 km and then turned left to travel 19 km. How far and in which direction is he from the starting point?

- (a) 5 km East of starting point
- (b) 13 km East of starting point
- (c) 13 km North East of starting point
- (d) 5 km North East of starting point

P, Q, R, S, T, U, V and W are 8 friends. P is 3 km east of S, and T is 2 km west of S. U is 1 km north of T. Q is 5 km south of U. R is 2 km east of Q. V is 8 km west of R. If Q is situated just in the middle of R and W, then find the distance between W and Q.

- (a) 5 km
- (b) 2 km
- (c) 3 km
- (d) 4 km

X and Y start from a point simultaneously. X moves to his south and travels 3 km, and Y moves to his east and travels 6 km. X takes 90° clockwise turn and travels 6 km. Y takes 270° anticlockwise turn and travels 8 km, then he turns 90° clockwise and travels 12 km. Which of the following is true regarding their positions?

- 1. The distance between X and Y is more than 5 km.**
- 2. X lies in the south of Y.**
- 3. Both X and Y are in the south-west of the starting point.**

- (a) Only 1 is true
- (b) Only 2 is true
- (c) Only 3 is true
- (d) None is true

Study the following information and answer the questions that follow.

Point K is 12 m to the West of point G. Point M is 4 m to the South of Point K. Point J is 10 m to the South of Point L. Point F is 6 m to the West of point J. Point G lies exactly between Point L and Point J. Point F is 5 m North of point O. Point Q is 18 m West of point O.

In which direction is Point J with respect to Point M?

- (a) Northeast
- (b) Northwest
- (c) South
- (d) Southeast

What is the shortest distance between Point K and Point L?

- (a) 10 m
- (b) 12 m
- (c) 13 m
- (d) 17 m

If Point N is 12 m to the East of Point Q, then what is the shortest distance between Point K and Point N?

- (a) 12 m
- (b) 10 m
- (c) 9 m
- (d) 8 m

Manoj on his way to school moves 25 km in south direction, then he takes 5 left turns and then moves 20 km. Then he takes 3 right turns and moves 25 km, turns right again and then moves 15 km. Find the distance and direction of school from his starting point.

- (a) 45 km, North
- (b) 40 km, West
- (c) 35 km, East
- (d) 25 km, South

From his home Raju walks 100 m towards North to reach a temple. From there he walks 70 m towards South-West, and finally turns 225 degrees in anti-clockwise direction and walks 30 m to reach his shop. In which direction is his home from his shop?

- (a) North- East
- (b) North-West
- (c) South-East
- (d) South-West

In a code, south-east becomes west, north-east becomes south and so on. What will west become?

- (a) South east
- (b) North-east
- (c) East
- (d) North

There are six cities viz., Amsterdam, Bhubaneshwar, Calgary, Denver, El Dorado and Frankfurt. Their positions with respect to one another on a map are described through the five clues given below.

Calgary is to the south of Frankfurt, but to the west of Denver.

Frankfurt is to the south of El Dorado which is east of Denver.

Amsterdam is south of Bhubaneshwar which is west of Frankfurt.

El Dorado is south of Amsterdam which is west of Calgary.

Denver is south of Frankfurt which is west of Amsterdam.

4. Which of the following are situated to the northeast of at least one other city?

- (a) Bhubaneshwar, Amsterdam and El Dorado
- (b) Amsterdam and El Dorado
- (c) Bhubaneshwar, Amsterdam
- (d) Amsterdam, Frankfurt and Denver

(d) Amsterdam, Frankfurt
5. Which of the following are to the northeast of Frankfurt?

(A) Amsterdam (B) El Dorado (C) Calgary

(a) A only (b) B only

(c) A and C (d) A and B

6. Which of the following statements cannot be derived from the given information?

(a) Bhubaneshwar is to the west of Amsterdam.

(b) Denver is to the south of Amsterdam.

(c) Denver is to the south of Calgary.

Ranking Arrangements

1. Aatish is fourteenth from the right end in a row of 40 boys. What is his position from the left end?

- | | |
|----------|----------|
| (a) 26th | (b) 28th |
| (d) 25th | (c) 27th |

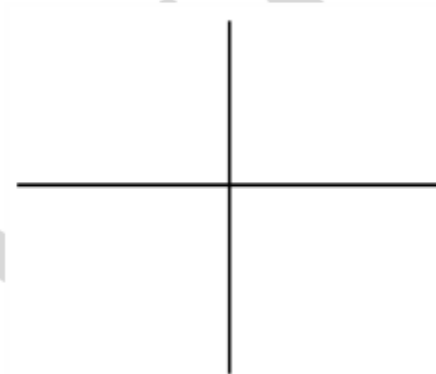
Seema's rank is 7th from the top and 26th from the bottom. How many students are there in the class?

- a) 30
- b) 31
- c) 35
- d) 32

If you are the 12th person in the queue starting from either end, then the number of persons in the queue are:

- a) 24
- b) 23
- c) 25
- d) 26

40. A group of children are organised in two rows, crossing each other. The arrangement has been shown below:



If a student is 10th from all ends, then how many students are there in the group?

- (a) 38
- (b) 47
- (c) 37
- (d) 39

4. In a class of 40 children, Sonam's rank is eighth from the top. Bina is five ranks below Sonam. What is Bina's rank from the bottom?

- (a) 26 (b) 28**
(c) 29 (d) None of these

6. Rupesh's rank is 16th from the top and 29th from the bottom among those who passed an examination. Six boys did not participate in the competition and five failed in it. How many boys were there in the class?

(a) 38 (b) 42

(c) 48 (d) 55

7. Vinit Jalan finds that he is 20th from the right end in a row of boys and 6th from the left end, then how many boys should be added to the row such that there are 36 boys in the row?

(a) 12

(b) 11

(c) Can't be determined

(d) 13

9. In a row of girls facing North, Tanu is 10th to the left of Priyanka, who is 21st from the right end. If Twinkle, who is 17th from the left end, is 4th to the right of Tanu, how many girls are there in the row?

- (a) Data inadequate
- (b) 43
- (c) 44
- (d) None of these

10. In a row of 29 boys, Rathore is at seventeenth position from the left while Hasan is seventeenth from the right end. How many boys are there between Rathore and Hasan?

(a) 6

(b) 3

(c) 5

(d) Can't be determined

In a row at a bus stop, Amit is 7th from the left and Prakash is 9th from the right. Both of them interchange their positions and thus Amit becomes 11th from the left . How many people are there in that row?

(a) 20 (b) 18

(c) 21 (d) 19

In a queue of children, lovely is fifth from the left and Riya is sixth from the right. When they interchange their places among themselves, Lovely becomes thirteenth from the left. Then, what will be Riya's position from the right?

(a) 15th (b) 14th

(c) 9th (d) 8th

Circular Arrangements

Q.1/5: P, Q, R, S, T, U and V are sitting along a circle and facing at the centre. P is between T and S. U is between Q and V. Q is 2nd to the right of T.

Which of the following is the correct position of V?

- ☐ 2nd to the left of P
- ☐ between P and U
- ☐ to the immediate left of U
- ☐ 4th to the left of T
- ☐ None of these

Q.2/5: P, Q, R, S, T, U and V are sitting along a circle and facing at the centre.
P is between T and S. U is between Q and V. Q is 2nd to the right of T.

Which of the following is the correct statement?

- ☐ S is between R and P
- ☐ Q is between T and R
- ☐ P is 3rd to the left of Q
- ☐ S is to the immediate left of V
- ☐ None of these

Q.4/5: P, Q, R, S, T, U and V are sitting along a circle and facing at the centre. P is between T and S. U is between Q and V. Q is 2nd to the right of T.

Which of the following pair has its first member sitting second to the right of the second member?

- ☐ TS
- ☐ US
- ☐ RS
- ☐ PR
- ☐ None of these

Eight persons L, M, N, P, Q, R, S and T are sitting around a circular table facing the centre. Q is not the neighbour of P or R. M is second to the left of T and third to the right of P. R is third to the left of N, who is to the immediate left of T. L is second to the right of P.

Q. Which one of the following is definitely true?

- a) Q is to the immediate right of S.
- b) R is to the immediate right of P.
- c) M is between N and Q.
- d) R is between P and S

Q. Who is to the immediate right of T?

- a) R
- b) S
- c) N
- d) Q

Q. Who is to the immediate left of P?

- a. S**
- b. R**
- c. Q**
- d. L**

Eight persons A, B, C, D, E, F, G and H are sitting around a circular table facing outwards but not necessarily in the same order. Two persons are sitting between G and B. C sits to the immediate left of G, who sits third to the right of A. F is not an immediate neighbour of B. D sits third to the left of E and is not an immediate neighbour of C.

Who sits third to the right of F?

- (a) D
- (b) H
- (c) E
- (d) B

Who sits opposite to D?

- (a) F
- (b) A
- (c) E
- (d) B

Q. Eight friends i.e. A, B, C, D, E, F, G and H are sitting around a circular table, facing outwards. A sits second to the right of F. C is an immediate neighbour of F. H sits second to the left of C. B sits opposite to A. C is not next to B. H sits second to the right of E. D is not next to E. Who among the following sits second to the left of A?

- (a) F
- (b) E
- (c) G
- (d) D

Eight people E, F, G, H, J, K, L and M are sitting around a circular table facing the centre. Each of them is of a different profession Chartered Accountant, Columnist, Doctor, Engineer, Financial Analyst, Lawyer, Professor and Scientist but not necessarily in the same order. F is sitting second to the left of K. The Scientist is an immediate neighbour of K. There are only three people between the Scientist and E. Only one person sits between the Engineer and E. The Columnist is to the immediate right of the Engineer. M is second to the right of K. H is the Scientist. G and J are immediate neighbours of each other. Neither G nor J is an Engineer. The Financial Analyst is to the immediate left of F. The Lawyer is second to the right of the Columnist. The Professor is an immediate neighbour of the Engineer. G is second to the right of the Chartered Accountant.

Which of the following statements is true according to the given arrangement?

- a) The Lawyer is second to the left of the Doctor
- b) E is an immediate neighbour of the Financial Analyst
- c) H sits exactly between F and the Financial Analyst
- d) Only four people sit between the Columnist and F
- e) All of the given statements are true

What is the position of L with respect to the Scientist ?

- a) Third to the left
- b) Second to the right
- c) Second to the left
- d) Third to the right
- e) Immediate right

Four of the following five are alike in a certain way based on the given arrangement and hence form a group. Which of the following does not belong to that group?

- a) Chartered Accountant - H
- b) M - Doctor
- c) J - Engineer
- d) Financial Analyst - L
- e) Lawyer - K

Who amongst the following is the Professor?

- a) F
- b) L
- c) M
- d) K
- e) J

A certain number of persons sit in a straight line all facing the north direction. Four persons sit between A and B. G sits second to the right of B. One person sits between G and K. The number of persons sitting between B and K is the same as the number of persons sitting to the right of K. V sits fifth to the left of G. P sits third from one of the extreme ends. P sits just to the left of V. P sits to the left of A.

Q. Find the total number of persons sitting in the row?

- (a) 14
- (b) 13
- (c) 15
- (d) 16

Q. If P sits exactly between V and R, then how many persons sit between R and G?

- (a) Three
- (b) Four
- (c) Seven
- (d) Six

Four pencils P, Q, R and S and three erasers A, B and C are kept on a table one after the other in a row, from left to right. Eraser C has as many items to its left as to its right. No pencil is at any of the ends of the row. Pencil P is kept to the immediate right of eraser A. Eraser C is kept to the immediate left of pencil R.

72. Which item is kept third from the left end of the row?

- (a) P
- (b) Q
- (c) Either P or S
- (d) Either Q or S

73. Which items are kept at the ends of the row?

- (a) A, B
- (b) P, Q
- (c) P, S
- (d) C, R

6. In the following question, two statements I & II have been given. Analyse and answer whether the data provided in the two statements are sufficient to answer the question or not.

Six persons R, S, T, U, V and W live in a six-storey building, wherein ground floor is numbered as 1, the floor above it as 2, and so on ... up to top floor that is numbered as 6.

Statement I: T lives on an even numbered floor but not on the top floor. Only two persons live between W and T. R lives below W.

Statement II: Four persons live between S and U. No one lives between S and T. V lives immediately above R.

Question: How many persons live between R and T?

- (a) I is sufficient to answer the Question.
- (b) I and II together are sufficient to answer the Question.
- (c) II is sufficient to answer the Question
- (d) I and II together are not sufficient to answer the Question.

Pramod, Prithvi, Pritham, Pavan, Prakash, Prashanth and Prabhu are living on seven different floors in an eight-floor building, but not necessarily in the same order. One of the odd numbered floors in the building is vacant. The lowermost floor is numbered 1 and the topmost floor is numbered 8.

Pramod lives on an even numbered floor above floor two. There are two floors between the floor on which Pramod lives and the floor on which Prakash lives. Prakash does not live on the top or bottom floor. Prabhu lives just above Prithvi and neither of them are the immediate neighbours of Prakash or Pramod. Prabhu lives immediately below the vacant floor. Prithvi lives on one of the odd numbered floors. There are two floors between the floor on which Prashanth lives and the floor on which Pavan lives. Prashanth lives on one of the floors above Prakash. Pavan does not live immediately above or immediately below the vacant floor. Pritham lives on an even numbered floor.

Q. Which floor is vacant?

- (a) 1st floor
- (b) 2nd floor
- (c) 5th floor
- (d) 3rd floor

Q. Who is living immediately above Pavan?

- (a) Prakash
- (b) Prashanth
- (c) Prabhu
- (d) Pritham

Q. How many people live between Pramod and Prashanth?

- (a) One
- (b) Three
- (c) Two
- (d) Four

Eight family members Dhruv, Garima, Avinash, Varsha, Aakash, Deepti, Charu and Moksh are sitting around a square table in such a way that two persons sit on each of the four sides of the table facing the centre. Members sitting on opposite sides are exactly opposite each other.

Aakash and Garima are exactly opposite each other. Deepti is immediately right to Garima. Dhruv and Moksh are sitting on the same side. Moksh is exactly opposite Avinash, who is to the immediate left of Varsha. Dhruv is towards right of Deepti.

Q. Which one of the following is definitely true?

- a. Charu is opposite Varsha**
- b. Deepti is to the left of Garima.**
- c. Avinash is to the right of Aakash.**
- d. Moksh is sitting opposite Dhruv.**

Q. Who is sitting opposite Dhruv?

- a. Charu**
- b. Deepti**
- c. Varsha**
- d. Moksh**

Q. Who is sitting opposite Deepti?

- a. Moksh**
- b. Charu**
- c. Varsha**
- d. Charu or Varsha**

Q. Who is next to Varsha in anti-clockwise direction?

- a. Garima**
- b. Avinash**
- c. Dhruv**
- d. Deepti**

Six students A, B, C, X, Y and Z live in different cities - Dehradun, Chandigarh, Indore, Bhopal, Pune and Noida, but not necessarily in the same order. Each of them is studying in a different class from 1st to 6th, but not in the same order.

X is studying in 6th. A is not studying in 1st. Neither X nor Z is living in Indore or Dehradun. C lives in Bhopal but does not study in 2nd. The one who is living in Noida is studying in 3rd. Y is studying in 5th and lives in Pune. The one who is living in Indore does not study in 2nd or 4th.

Q. Who is living in Pune?

- (a) J
- (b) Z
- (c) Y
- (d) B

62. A is studying in which of the following classes?

- (a) 1st**
- (b) 2nd**
- (c) 3rd**
- (d) 4th**

63. Which of the following pair is correct with respect to the given information?

- (a) 1st - Indore**
- (b) 2nd - Pune**
- (c) 3rd - Bhopal**
- (d) 4th - Z**

P, Q and R are three politicians present at a function. They have been seated on a dais facing two tables, one behind the other at which media persons A, B, C, D, E and F sit, three in each row. So, the media persons are facing the politicians, who are sitting on the dais/stage. Further it is known that:

A and C are not sitting at the same table. C is at one end of the second table (the one behind the first table). D sits behind A, who is facing P on the dais. B sits behind F, who is exactly opposite to Q on the dais. Q is not at either of the ends. E is not sitting at the right end of his row.

56. Who all are sitting in the first row?

- (a) A, E, B
- (b) B, C, D
- (c) A, D, B
- (d) E, F, A

57. Who is sitting in the first row facing R?

- (a) A
- (b) D
- (c) B
- (d) E

58. Which of the following is correct?

- (a) P is sitting to the left of Q.
- (b) P is sitting to the left of R.
- (c) D is sitting behind A.
- (d) All are correct.

INEQUALITIES

Q. A statement and four conclusions are given below.

Statement: $A \geq B = C < D \leq E > F \geq G$

Conclusions:

I. $A \geq C$

II. $B < D$

III. $E > G$

IV. $C < E$

Which of the above conclusions are true?

- (a) I and II only
- (b) III and IV only
- (c) I, II and III only
- (d) All are true

Consider the following statements:

- 1. Rahul is younger than Raj but older than Mona and Priya.**
- 2. Raj is the oldest.**
- 3. Mona is older than Priya.**

Who among Monu, Priya, Rahul and Raj is the youngest?

- (a) Priya
- (b) Mona
- (c) Rahul
- (d) Raj

Q. A, B and C are three students from school X. P, Q and R are three students from school Y. Q is a brighter student than R, but duller than the X school student who is brighter than A. The same student from school X is duller student than P, but is brighter than C. Who is the brightest student among them?

- (a) R
- (b) P
- (c) Q
- (d) Cannot be determined

There are four individuals in a group namely X, Y, Z and W. X is three times the age of Z. Z is half the age of W. Y is older than Z.

What inference can we draw from the above data?

- (a) Y is older than W
- (b) X is older than W
- (c) W might be younger than Z
- (d) None of the above

Consider the following:

A @ B means $A > B$

A # B means $A < B$

A % B means $A = B$

It is given that N@P, P#O, O@M and N%M then:

(a) O@N

(b) O#N

(c) O%M

(d) None

Q. Two statements S1 and S2 are given below with regards to four houses A, B, C and D in a housing society, followed by a question.

S1: C is bigger in size than A and B.

S2: D is not the biggest house among them.

Question:

Among four houses A, B, C and D which one is the biggest house?

- (a) S1 alone is sufficient to answer the Question.
- (b) S2 alone is sufficient to answer the Question.
- (c) S1 and S2 together are sufficient to answer the Question, but neither S1 alone nor S2 alone is sufficient to answer the Question.
- (d) S1 and S2 together are not sufficient to answer the Question.

Seven players of a kabaddi team were born in different months of the same year, in January, March, April, May, June, July and August, but not necessarily in the same order.

D was born in a month having 30 days. There are 3 persons who were born between D and A. Only one person was born between E and F. F is older than E. No one was born between A and G. B was born before C. B is not the eldest person.

Who is the eldest person among all of them?

- (a) B
- (b) A
- (c) D
- (d) G

Which of the following is **not** correct?

- (a) A is older than G.
- (b) F is younger than only 3 persons.
- (c) D is the 3rd eldest person.
- (d) G is the 2nd eldest person.

Two statements S1 and S2 are given below followed by a Question.

S1: Neither A nor C is the tallest. D is taller than A.

S2: A is taller than C and E. D is taller than B, who is not shorter than A.

Question: A, B, C, D and E have different heights. Who among them is the tallest?

Which one of the following is correct in respect of the above Statements and the Question?

- (a) Both S1 and S2 together are sufficient to answer the Question, but neither S1 alone nor S2 alone is sufficient to answer the Question.
- (b) S1 alone is sufficient to answer the Question.
- (c) S1 and S2 together are not sufficient to answer the Question.
- (d) S2 alone is sufficient to answer the Question

Read the following information given below and answer the questions that follow.

- **A @ B, means B is greater than A**
- **A & B, means B is smaller than A**
- **A \$ B, means B is equal to A**
- **A # B, means B is greater than or equal to A**
- **A % B, means B is smaller than or equal to A**

Statement: Punit @ Piyush \$ Ram % Simpy # Tapan % Uday

- **Conclusion I:** Punit % Uday
- **Conclusion II:** Ram @ Tapan

- (a) Only conclusion I is true
- (b) Only conclusion II is true
- (c) Both conclusion I and II are true
- (d) Neither conclusion I nor II is true

Blood Relations

Pointing towards a lady a man said ,”Her mother is the only daughter of my mother in law”. How is that man related to the lady?

- a. Husband
- b. Father
- c. Brother
- d. Uncle

P is the father of Q, who is the sister of R. S is the wife of R ,who is the son of T.V is the brother of W, who is the sister of P. Z is the husband of Y and father of T.

How is V related to Q?

- a. Uncle
- b. Nephew
- c. Brother
- d. Cousin

How is S related to P?

- a. Sister in law
- b. Daughter
- c. Mother in law
- d. Daughter in law

A family consists of a Grandfather, Grandmother, father, mother, daughter, daughter in law, grandson, granddaughter, brother, sister and two sons. How many members are there in the family?

- a. 9
- b. 12
- c. 6
- d. 8

If A is the mother of D, B is not the son of C, C is the father of D, D is the sister of B, then how is B related to A?

- a. Daughter
- b. Son
- c. Step-son
- d. Sister

Q. There are seven members in a family. D is the mother of A and mother-in-law of C. E is the daughter-in-law of G. C is the son of E, who is married to F. B is the spouse of C. There are only two married couples in the family. How is A related with E?

- (a) Brother
- (b) Grand daughter
- (c) Grandson
- (d) Can't be determined

Study the following information carefully and answer the items that follow.

- (i) There are six persons in a family Aman, Bindu, Chetan, Deepti, Happy and Vikas. They are Psychologist, Manager, Lawyer, Jeweller, Doctor and Engineer, not necessarily in the same order.**
- (ii) The doctor is the grandfather of Vikas, who is a psychologist.**
- (iii) The manager Deepti is a woman and married to Aman.**
- (iv) Chetan, the jeweller is married to the lawyer.**
- (v) Bindu is the mother of Vikas and Happy, who are not married.**
- (vi) There are two married couples in the family.**

Q. Which of the following is one of the pairs of couples in the family?

- (a) Chetan and Bindu
- (b) Vikas and Deepti
- (c) Chetan and Deepti
- (d) Cannot be determined

Q. How many male members are there in the family?

(a) Three

(b) Four

(c) Two

(d) Cannot be determined

Q. What is the profession of Happy?

(a) Doctor

(b) Jeweller

(c) Manager

(d) None of these