

BANK EXAMS

REASONING

PUZZLES

In this article, let us discuss about Puzzles, its importance in various Bank exams, different types of puzzles and how to solve these puzzles. Irrespective of the exam, whether it is a Tier – I or Tier – II, PO or Clerical, SBI, IBPS, RRB or SO (Specialist Officer) the weightage of puzzles will be around 15 to 25 questions. In the recently held SBI PO (tier – I), in one of the slots there were 25 questions out of 35 (Reasoning section) on puzzles, with this we can able to assess the importance of puzzles in the Bank exams.

Now let us discuss about various types of Puzzles. Puzzles can be broadly classified into,

- 1) Sitting Arrangement
- 2) Floor Arrangement
- 3) Distribution
- 4) Arithmetic based puzzles

First let us discuss about Sitting Arrangement:

In this Sitting Arrangement, we have

- a) Row arrangement
- b) Queue arrangement
- c) Circular arrangement

i) Persons facing North:

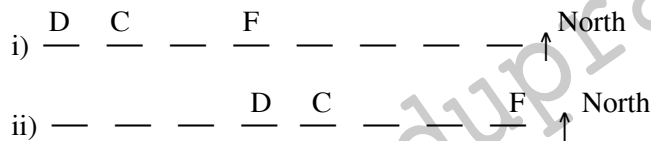
Directions (1 – 5): Study the following information to answer the given questions.

Eight friends – A, B, C, D, E, F, G and H are seated in a straight line, facing north, but not necessarily in the same order. D sits fourth to the left of F. Either D or F sits at one of the extreme ends of the line. Only two people sit between F and C. C does not sit at any of the extreme ends of the line. A sits second to the right of H. H is not an immediate neighbour of F. G and B are immediate neighbours of each other. B is not an immediate neighbour of F.

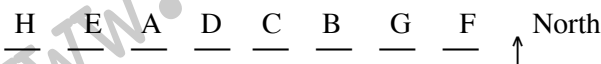
1. Who amongst the following sit exactly between F and C?
 - 1) D, H
 - 2) E, G
 - 3) A, H
 - 4) B, G
 - 5) B, E
2. Based on the given arrangement, which of the following is true with respect to E?
 - 1) Both B and G are immediate neighbours of E
 - 2) Only two persons sit between E and A
 - 3) E sits to the immediate right of D
 - 4) None of the given options is true
 - 5) Only two persons sit to the right of E
3. Who amongst the following represent the persons seated at the extreme ends of the line?
 - 1) B, F
 - 2) H, F
 - 3) D, E
 - 4) D, A
 - 5) E, F

4. How many persons are seated between G and D?
- 1) Two 2) One 3) None 4) Three
- 5) Four
5. What is the position of B with respect to F?
- 1) Second to the left 2) Second to the right 3) Fourth to the right 4) Third to the left
- 5) Third to the right

Solutions for questions 1 – 5: It is given that D sits fourth to the left of F and either D or F sit at one of the extreme ends of the line. Hence D can be at the left end of the line or F can be at the right end of the line. Only two people sit between F and C, and C does not sit at any extreme ends of the line. Hence D and C sit adjacent to each other, it can be shown as follows.



A sits second to the right of H and H is not an immediate neighbour of F. Hence possibility (i) gets eliminated and H sits at the left extreme end and A sits to the immediate left of D. B and G sit adjacent to each other but B is not an immediate neighbour of F. Hence B sits to the immediate right of C and G sits to the immediate left of F. E sits between H and A. The final seating arrangement is as follows.



1. B and G sit exactly between F and C. Choice (4)
2. None of the given options is true. Choice (4)
3. H and F sit at the extreme ends of the line. Choice (2)
4. Only two persons are seated between G and D. Choice (1)
5. B sits second to the left of F. choice (1)

(ii) Persons facing South:

Directions (6 – 10): These questions are based on the following information. P, Q, R, S, T, V, W and X are seated in a straight line facing South but not necessarily in the same order. P sits fourth to the left of X. Either P or X sits at the extreme ends of the line. Q and V are immediate neighbours of each other but none of them is an immediate neighbours X and P. Only one person sits between V and S. Only two people sit between S and T. The seating arrangement is such that W never sits at any position towards the right of Q. W is not an immediate neighbour of P.

6. What is the position of R with respect of X?
- 1) Second to the right 2) Second to the left 3) Third to the right 4) Third to the left
- 5) Fourth to the right
7. Which of the following represents persons seated at the two extreme ends of the line?
- 1) V, X 2) P, V 3) P, T 4) X, Q
- 5) W, S

8. How many persons are seated between Q and X?
 1) One 2) Two 3) Five 4) Four
 5) None
9. R is related to T and P, in the same way Q is related to V and S. Which of the following would X be related to the following in the same pattern?
 1) Q and W 2) R and T 3) S and W 4) R and W
 5) None of these
10. Who amongst the following sits exactly between S and W?
 1) V 2) X 3) Q 4) T
 5) P

Solutions for questions 6 – 10: It is given that P sits fourth to the left of X and either P or X sits at one of the extreme ends of the row. Hence X sits at the right end of the row or P sits at the left end of the row. It is also given that V and Q sit adjacent to each other but neither of them is an immediate neighbour of X and P. It can be shown as follows.

- i) $\underline{X} \quad \underline{\quad} \quad \underline{\quad} \quad \underline{\quad} \quad \underline{P} \quad \underline{\quad} \quad \underline{V/Q} \quad \underline{Q/V} \quad \downarrow \text{South}$
- ii) $\underline{V/Q} \quad \underline{Q/V} \quad \underline{\quad} \quad \underline{X} \quad \underline{\quad} \quad \underline{\quad} \quad \underline{\quad} \quad \underline{P} \quad \downarrow \text{South}$

It is also given that W never sits at any positions towards the right of Q which not possible in case (i). Hence it is eliminated.

In case (ii) it is given that only one person sits between V and S. Hence V sits at the right end of the row. S sits to the immediate right of X. Only two people sit between S and T. Hence T sits second to the left of X. As W is not an immediate neighbour of P. W sits between X and T and R sits to the immediate right of P. The final seating arrangement is as follows.

- ii) $\underline{V} \quad \underline{Q} \quad \underline{S} \quad \underline{X} \quad \underline{W} \quad \underline{T} \quad \underline{R} \quad \underline{P} \quad \downarrow \text{South}$

6. R sits third to the left of X. Choice (4)
7. P and V sit at the extreme ends of the line. Choice (2)
8. Only 'S' sits between Q and X. Choice (1)
9. R sits between T and P similarly Q sits between V and S in the same way X sits between S and W. Choice (3)
10. X sits exactly between S and W. Choice (2)

(iii) Two row arrangement:

Directions (11 – 12): Study the following information to answer the given questions.

Twelve people are sitting in two parallel rows containing six people each, in such a way that three is equal distance between adjacent persons, in row-1 V, W, X, Y, Z and I are seated and all of them facing South. In row- 2 P, Q, R, S, T and U are seated and all of them facing North. Therefore in the given seating arrangement each member seated in a row faces another member of the other row.

Q sits third to the right of U. T sits to the immediate right of Q. Only one person sits between T and P. V is one of the immediate neighbours of the one who faces T. Y sits to the immediate left of V. Only three people sit between Y and I. X sits third to the left of W. W is not an immediate neighbor of I. S does not face X.

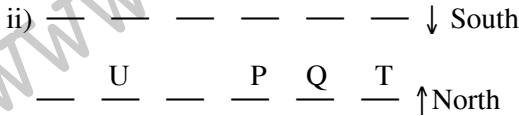
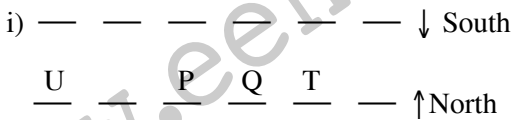
11. Who amongst the following is facing R?

- 1) Z 2) V 3) I 4) Y
5) X

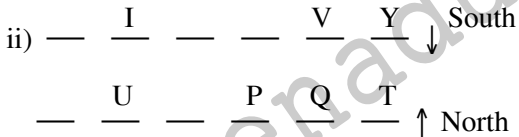
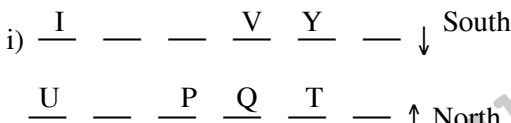
12. Four of the given five are alike in a certain way based on the given arrangement and hence form a group. Which of them does not belong to that group?

- 1) X 2) Z 3) S 4) T
5) Y

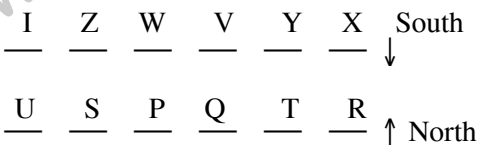
Solutions for questions (11 – 12) It is given that Q sits third to the right of U and T sits to the immediate right of Q and only one person sits between T and P. Hence U sits at the left end of row-II or at the second place from the left end and Q sits at third place from the right end or at the second place from the right end and T sits to the immediate right of Q as well as P sits to the immediate left of Q accordingly. It can be shown as follows.



V is one of the immediate neighbours of the one who faces T. Hence in case (i) V sits at the left end or at the third place from the left end of row- I. But Y sits to the immediate left of V. Hence V sits at the third place from the left end in case (i) and at the second place from the left end in case (ii) and Y sits to the immediate left of V accordingly. Only three people sit between Y and I. It can be shown as follows



It also given that X sits third to the left of W and W is not an immediate neighbour of I which not possible in case (ii). Hence it is eliminated. In case (i), W sits to the immediate right of V and X sits at the left end of row-I. As S does not face X. S sits to the immediate right of U facing Z and R sits at the right end of row-II facing X. The final seating arrangement is as follow.



11. X is facing R. Choice (5)
12. Except X remaining people sit at the second position from either ends of the rows. Choice (5)

Row arrangement

Now, let us discuss about various models in Row arrangement.

- i) Persons facing North
- ii) Persons facing South
- iii) Two row arrangement (persons in one row face North and the other row face South).
- iv) Persons in a row face different directions (North and South)
- v) Persons in a row with vacant seat
- vi) Two row with vacant seats
- vii) Single row with distribution

(for eg: Eight persons sitting in a row likes different colours, relations, different ages, different professions and so on will be given)

This distribution can be combined with any of the earlier discussed models from (i) to (vi).

Points that are to be remembered while solving questions on Row arrangement:

- 1) The persons who are facing North will have the same directions as ours i.e., (their left is towards our left, their right is towards our right, directions – same).
- 2) The persons who are facing South will have opposite directions as ours i.e., their left is towards our right, their right is towards our left, directions are opposite).
- 3) The words **Who / Which** always refers to the immediately previous person / thing.
For eg: A is to the left of D who is to the left of C, means here the word 'who' refers to D but not to A.
The order is A D C.
- 4) The words **And / But** always refers to the first person with which the statement has started.
For eg: A is to the left of D but is to the right of C, means here the word "but" refers to A but not to D.
The order is C A D.
- 5) In this **left** need not necessarily be **immediate left** and **right** need not necessarily be **immediate right**.
For eg: A is to the left of D doesn't mean that A is to the immediate left of D.
Whether A and D can be together or there could be some persons between A and D.

Now let us discuss about each model (earlier discussed i to vi) in Row arrangement with an example.

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