

Linear Arrangements

Model 1: Simple Arrangement



Exercise 1

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

- i. Five topics, A, B, C, D, E are to be discussed one topic on each day, from Monday to Saturday.
 - ii. Topic A will be discussed before E and topic B will be discussed before D.
 - iii. Topics B and D will not be discussed on the first day.
 - iv. There will be one rest day denoted by F.
 - v. There will be a gap of two days between the days on which topics D and B will be discussed.
 - vi. Topic C will be discussed immediately before the rest day. The rest day will not be the second or the fourth day.
1. Which of the following is the correct sequence of the discussion on the topics including the rest day 'F'?

1) AEBFCD	2) ABECFD	3) AEBCFD
4) Cannot be determined	5) None of these	
 2. Which of the following is a correct statement?
 - 1) Topic A will be discussed on Tuesday.
 - 2) Discussion on topic C will be immediately preceded by discussion on topic B.
 - 3) discussion on topic B will take place before that on A.
 - 4) Thursday is the rest day.
 - 5) None of these

3. On which of the following days will the topic C be discussed?
- 1) Tuesday 2) Wednesday 3) Friday
4) Cannot be determined 5) None of these
4. How many days gap will be there between the days on which topic E and B will be discussed?
- 1) Nil 2) One 3) Two 4) Three 5) None of these
5. With reference to A, the discussion on topic E will take place ____.
- 1) immediately on the next day 2) after a day's gap 3) after three days
4) Cannot be determined 5) None of these

Exercise 2

Directions (6-10): Study the following information to answer the given questions: Ten executives A,B,C,D,E,F,G,H,I and J stay in flats in two rows opposite each other. One row has 5 flats facing North and the other row has 5 flats facing South. F's flat is second to the right of J's flat, which is exactly opposite of C's flat facing North. D's flat is on the immediate left of J's flat and A's flat on the immediate left of C's flat. B's flat is on the right of C's flat. I and E have flats at the two ends of the same row. Flats of E and H are opposite each other.

6. Which of the following is the correct position of G's flat?
- 1) Facing North 2) Opposite C's flat 3) To the left of F's flat
4) To the left of J's flat 5) None of these
7. Who stays opposite B?
- 1) F 2) G 3) D 4) F or G 5) None of these
8. Which of the following statements is definitely true?
- 1) J's flat is facing North 2) G and A have flats opposite each other.

- 3) B's flat is to the right of E's flat 4) G's flat is to the left of J's flat
5) None of these

9. Which of the following groups of persons have flats in the same row?

- 1) ACG 2) GIE 3) GJF 4) FAJ 5) None of these

10. Which of the following pairs of executives stay in the flats at the ends of a row?

- 1) FD 2) HD 3) HG 4) GD 5) None of these

Model 2: Complex Arrangement



Exercise 1

Directions (11-17): Study the following information to answer the given questions:
P, Q, R, S, T, V and W are sitting in a straight line facing north. Each one of them lives on a different floor in the same building which is numbered from one to seven.

Q sits fourth to the left of the person living on the 6th floor. Either Q or the person living on the 6th floor sits at the extreme ends of the line.

Only one person sits between Q and W. W lives on the 3rd floor. The person living on the 1st floor sits third to right of S. S is not an immediate neighbour of W. Only one person lies between T and person who live on the 2nd floor. P and R are immediate neighbours of each other. P does not live on the 6th floor. One who lives on the 5th floor sits third to right of the one who lives on the 7th floor.

11. Who amongst the following lies on the 4th floor?

- 1) P 2) Q 3) R 4) S 5) V

12. On which of the following floors does T live?

- 1) 1st 2) 2nd 3) 5th 4) 6th 5) 7th

13. How many floors are there between the floors on which V and P live?

- 1) One 2) Two 3) Three 4) Four 5) None

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

14. 1) W 2) T 3) S 4) P 5) Q

15. 1) T- 2nd floor 2) R-7th floor 3) V-3rd floor 4) S- 5th floor 5) Q-6th floor

16. If all the persons are made to live in alphabetical order from the bottom-most floor to the topmost floor (i.e. P lives on the 1st floor, Q lives on the 2nd floor and finally W lives on the 7th floor), who would still live on the same floor as the original arrangement?

- 1) R 2) V 3) W 4) T 5) S

17. Which of the following is true with respect to the given arrangement?

- 1) The one who lives on the 5th floor is an immediate neighbour of S.
2) V lives on the 1st floor.
3) T sits second to the left of the person who lives on the 2nd floor.
4) R and V are immediate neighbours of each other.
5) The one who lives on the 4th floor sits at one of the extreme ends of the line.

Directions (18-25): Study the following information to answer the given questions:

The annual gathering of a school was organized on a day in the morning hours. Six difference items, viz. drama, singing, mimicry, speech, story-telling and dance, are to be performed by six children A, B, C, D, E and F not necessarily in the same order. The program begins with song not sung by B and ends with dance. C performs mimicry immediately after speech. E performs drama just before dance. D or F is not available for the last performance. Speech is not given by

A. An interval of 30 minutes is given immediately after mimicry with three more items remaining to be performed. D performs immediately after interval.

18. Which item is performed by F?

- 1) Drama 2) Song 3) Speech 4) Story-telling 5) None of these

19. Who performed dance?

- 1) A 2) B 3) F
4) Data inadequate 5) None of these

20. Who was the first performer?

- 1) A 2) B 3) C
- 4) Data inadequate 5) None of these

21. Which item is performed by D?

- 1) Dance 2) Story-telling 3) Singing 4) Drama 5) None of these

22. Who was the fifth performer?

- 1) E 2) A 3) C 4) B 5) None of these

23. Who gave the speech?

- 1) F 2) B 3) B or F 4) D 5) None of these

24. Which of the following is a correct combination?

- 1) C-Drama 2) E-Mimicry 3) A-Speech
- 4) D-Story telling 5) None of these

25. Which item was performed by A?

- 1) Song 2) Dance 3) Speech
4) Dance or song 5) None of these

Answers

1 - 3	2 - 2	3 - 5	4 - 1	5 - 1	6 - 3	7 - 3	8 - 2	9 - 3	10 - 5
11 - 4	12 - 1	13 - 2	14 - 3	15 - 5	16 - 5	17 - 5	18 - 5	19 - 4	20 - 4
21 - 2	22 - 1	23 - 3	24 - 4	25 - 4					

Additional Examples

Directions (1-5): Study the following information carefully and answer the questions given below:

Eight friends E, F, G, H, S, T, U and V are sitting around a square table in such a way that four of them at four corners of the square table while four sit in middle of each of the four sides. The ones who sit at the four corners face the centre while those who sit in the middle of the sides face outside.

- S is an immediate neighbour of both E and V. S sits in the middle of one of the sides of the table.
- Only one person sits between E and H.
- T sits second to the right of U. U is not an immediate neighbour of E but V.
- F is not an immediate neighbour of G.
- G faces a direction opposite to that of U. (i.e. If U faces the centre then G faces outside and vice-versa)

1. How many people sit between F and G when counted from the right side of F?

- 1) Three 2) Two 3) Four 4) None 5) One

2. Which of the following is true regarding F?

- 1) Only three people sit between F and H
 2) F sits in middle of one of the sides.
 3) F sits second to right of U

4) None of the given options is true.

5) Both S and G are the immediate neighbours of F.

3. Who sits to the immediate right of H?

1) U 2) S 3) G 4) F 5) T

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

1) T 2) V 3) G 4) H 5) E

5. What is the position of U with respect to E?

1) Third to the right 2) Fifth to the left 3) Second to the left
4) Third to the left 5) Second to the right

Answers

1 - 3	2 - 2	3 - 5	4 - 1	5 - 4
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