



# SNS COLLEGE OF TECHNOLOGY

Coimbatore-35

An Autonomous Institution

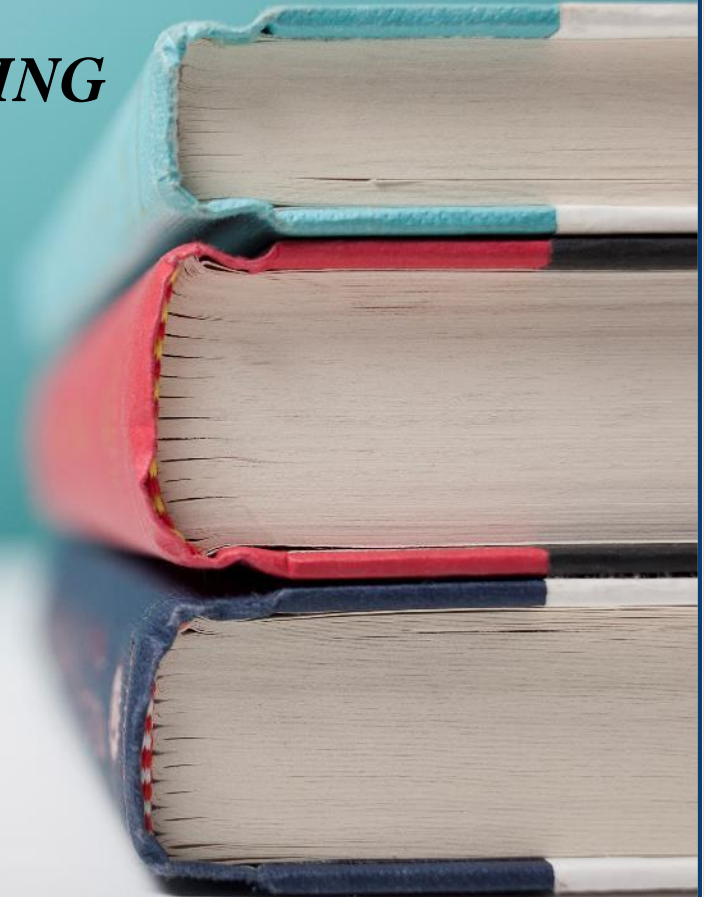
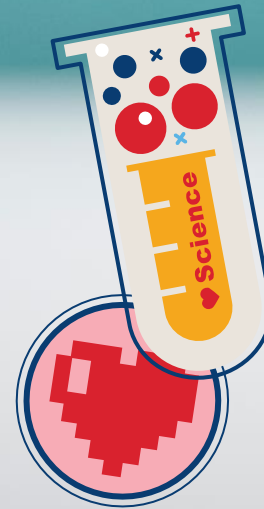
*DEPARTMENT OF AEROSPACE ENGINEERING*



## 19GET275 - VQAR 1

### VQAR-1-Unit III

- Analytical Reasoning
- 1.Linear & Circular Arrangements
- 2.Blood Relation.
- 3.Direction Problems
- 4.Puzzles





# Linear & Circular Arrangements



# Linear Arrangement

- Any logical arrangement of objects or people either horizontally or vertically or diagonally is known as **Linear arrangement**.
- Ex: The row of the travellers in a train, students in a prayer hall, etc.



## There are two methods to solve the problem:



There are two methods to solve the problem:

- **Table Formation:** The data is tabulated to match the properties based on the logical conditions provided in the questions.
- **Matric Tabulation:** The Properties are matched in the form of a matrix with the help of symbols and special characters to solve the questions.
- Among both the methods, the number of rows and columns depends on the complexity and the number of properties in the questions.



# Linear & Circular Arrangement

**Question :1** How different is the seating arrangement in actual and in the picture?

Five friends Deepthi, Bhagya, Ramya, Sushil, and Akash request Sugjna, their friend, to take their photograph. Bhagya, who is an attention seeker, is always in the middle of Ramya and Deepti. There is no one to the left of Akash. Ramya always stands next to Sushil. There is no girl between two boys. Who is at the extreme right end in the photograph?

## Solution

The seating arrangement in actual would be Deepti- Bhagya-Ramya-Sushil, and Akash. But when the photograph of the above arrangement is taken a right and left references are changed. Since the photograph is held in front of us. The viewer's right will be the photograph's left, and the photograph's right would be the viewer's left. Hence, Deepti will be at the extreme right end in the photograph.



# Linear & Circular Arrangement

## Question :1

Amit, Bharati, Cheryl, Deepak, and Eric are five friends sitting in a restaurant. They are wearing caps of five different colours — yellow, blue, green, white and red. Also, they are eating five different snacks — burgers, sandwiches, ice cream, pastries, and pizza.

- The person wearing a red cap is eating pastries.
- Amit does not eat ice cream, and Cheryl is eating sandwiches.
- Bharati is wearing a yellow cap and Amit wearing a blue cap.
- Eric is eating pizza and is not wearing a green cap.



## Solution

There are five people in the scenario and each person is associated with two properties, viz. Colour of the caps, and the dish they are eating. Hence the tabulation method is easier to apply.

Amith	Bharati	Cheryl	Deepak	Eric	
Colour	Blue	Yellow	Green	Red	White
Dish	Burger	Ice cream	Sandwiches	Pastries	Pizza

# Linear & Circular Arrangement

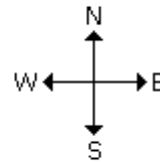
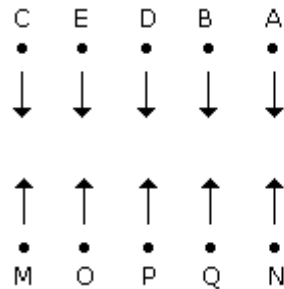
**Question :3** A ,B, C, D and E are five men sitting in a line facing to south - while M, N, O, P and Q are five ladies sitting in a second line parallel to the first line and are facing to North.

- 1). B who is just next to the left of D, is opposite to Q. 2).C and N are diagonally opposite to each other.
- 3). E is opposite to O who is just next right of M. 4). P who is just to the left of Q, is opposite to D.
- 5). M is at one end of the line.

**1. Who is sitting third to the right of O ?**

- A).Q B).N C).M D).Data inadequate

**Solution**



# Linear & Circular Arrangement

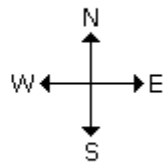
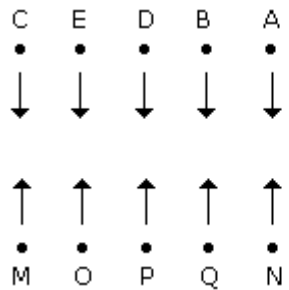
Question :3

2. If B shifts to the place of E, E shifts to the place of Q, and Q shifts to the place of B, then who will be the second to the left of the person opposite to O ?

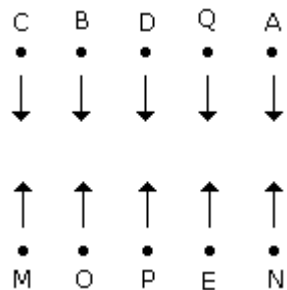
A).Q B).P C).E D).D

Solution

Initial arrangement:  
B is Q



New arrangement after shifting : B is opposite to O and second person left to





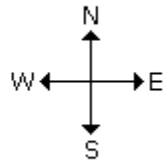
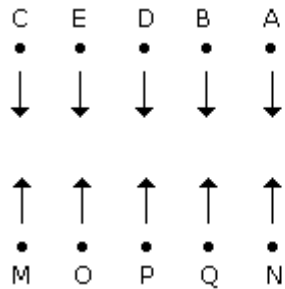
# Linear & Circular Arrangement

Question :3

3. Which of the following pair is diagonally opposite to each other ?

A). EQ   B). BO   C). AN   D). AM

Solution



# Linear & Circular Arrangement

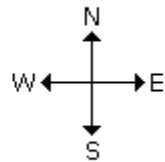
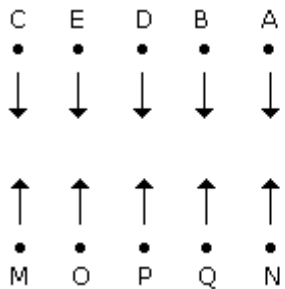
Question :3

4. If O and P, A and E and B and Q interchange their positions, then who will be the second person to the right of the person who is opposite to the person second of the right of P ?

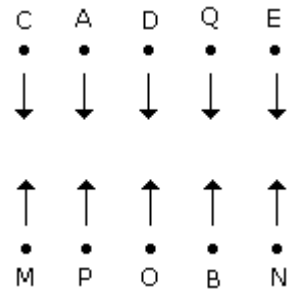
A). D    B). A    C). E    D). O

**Solution**

Old arrangement



New arrangement



# Linear & Circular Arrangement

Question :3

5. In the original arrangement who is sitting just opposite to N ?

A). B    B). A    C). C    D). D





# Thank You

P.KALPANADEVI

Kalpana.p.aero@snsct.org

