# Linear Arrangement Questions for CAT Exam

**Linear Arrangement CAT Questions - Practice Set**

Practicing Linear Arrangement CAT Questions will help the candidates to solve questions on the circular arrangement and seating arrangement easily. As the CAT Exam has no defined syllabus it cannot be said that Linear Arrangement CAT Questions are not there in the syllabus. Candidates can check below the sample questions for Linear Arrangement CAT Questions:

**Direction:** Study the following information carefully and answer the questions given below:
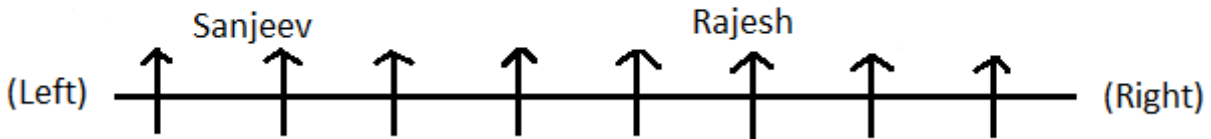
Eight friends Gaurav, Rekha, Suresh, Manthan, Jaya, Megha, Sanjeev, and Rajesh are going to watch a movie and they sit in the first row facing North. Rekha is not sitting at any of the two ends. Only one person is sitting between Manthan and Rekha. Manthan and Megha are sitting adjacent to each other, while none of them are sitting at the ends of the line. Suresh is not adjacent to Rajesh. Jaya is sitting second to the right of Suresh. Sanjeev sits fourth to the left of Rajesh. Rajesh's position is either at the sixth from the left end or fourth from the right of the line.

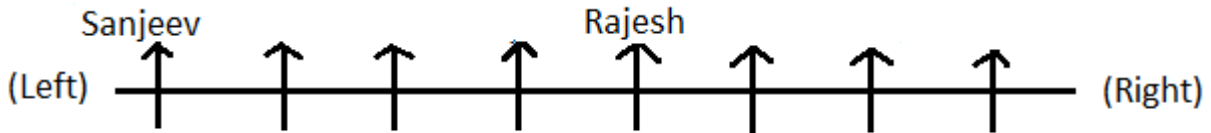**Question:** What is the position of Megha with respect to Sanjeev?

**Solution:**
i) 8 friends – Gaurav, Rekha, Suresh, Manthan, Jaya, Megha, Sanjeev and Rajesh.
ii) All are facing north.
1) Rajesh's position is either at the sixth from the left end or fourth from the right of the line.
2) Sanjeev sits fourth to the left of Rajesh.
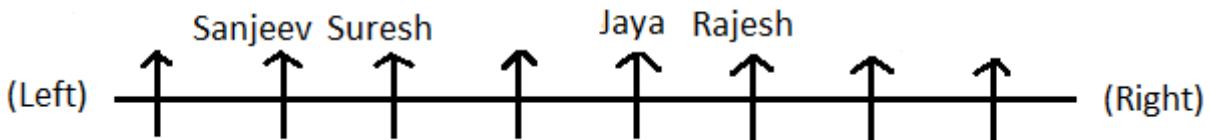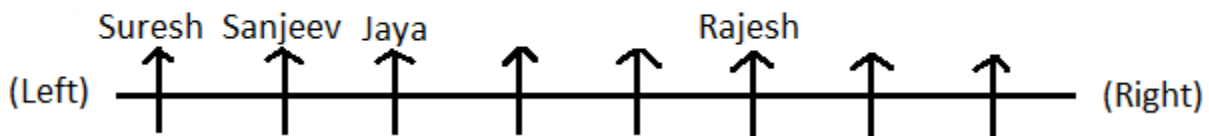(Hence, there will be two possible cases)

Case I:

Sanjeev          Rajesh

(Left) ——————————————————— (Right)

Case II:

Sanjeev         Rajesh

(Left) ——————————————————— (Right)

3) Suresh is not adjacent to Rajesh.
4) Jaya is sitting second to the right of Suresh.
(Now, there will be three possible cases)
Case I:

Sanjeev Suresh    Jaya Rajesh

(Left) ——————————————————— (Right)

Case II:

Suresh Sanjeev Jaya      Rajesh

(Left) ——————————————————— (Right)

Case III :

Sanjeev  Suresh     Jaya  Rajesh

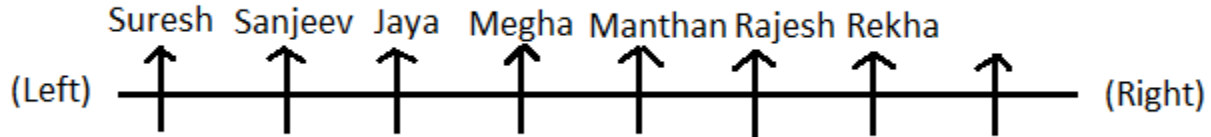(Left) ——————————————————— (Right)

5) Manthan and Megha are sitting adjacent to each other, while none of them is sitting at the end of the line.
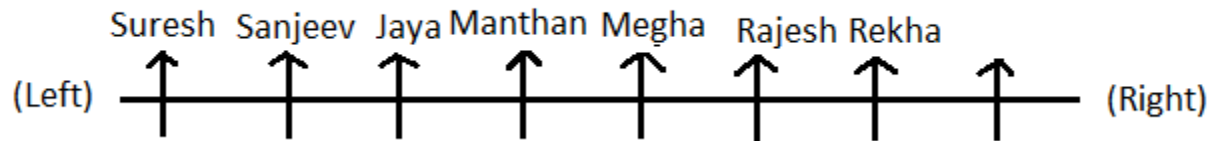(Hence, Case I will be eliminated, so we can further precede with case II and III).
6) Rekha is not sitting at any of the two ends.

(Now, there will be another two possible cases, hence there will be total four possible cases now)
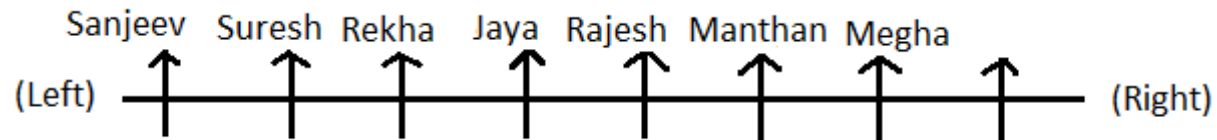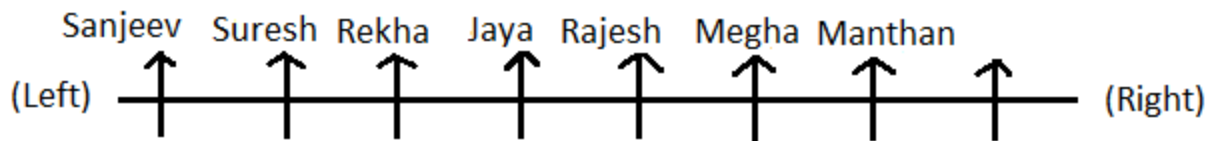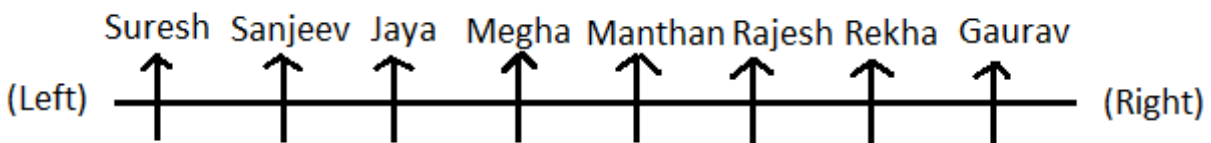
Case I:

Suresh  Sanjeev  Jaya  Megha  Manthan Rajesh Rekha

(Left) ———————————————————————————————— (Right)

Case II:

Suresh  Sanjeev  Jaya  Manthan  Megha  Rajesh Rekha

(Left) ———————————————————————————————— (Right)

Case III:

Sanjeev  Suresh  Rekha  Jaya  Rajesh  Manthan  Megha

(Left) ———————————————————————————————— (Right)

Case IV:

Sanjeev  Suresh  Rekha  Jaya  Rajesh  Megha  Manthan

(Left) ———————————————————————————————— (Right)

7) Only one person is sitting between Manthan and Rekha.
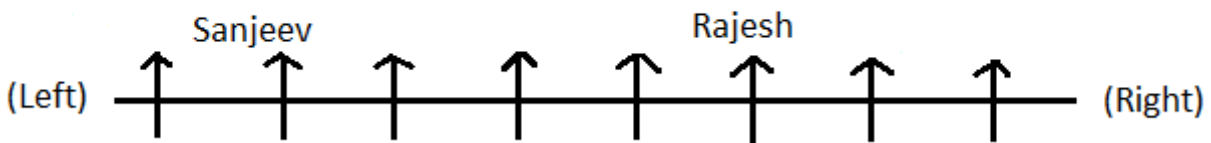(Hence, case III, IV and V will be eliminated, so we can further proceed with case II)

Suresh  Sanjeev  Jaya  Megha  Manthan Rajesh Rekha  Gaurav

(Left) ———————————————————————————————— (Right)

Hence, Megha is second to the right of Sanjeev.

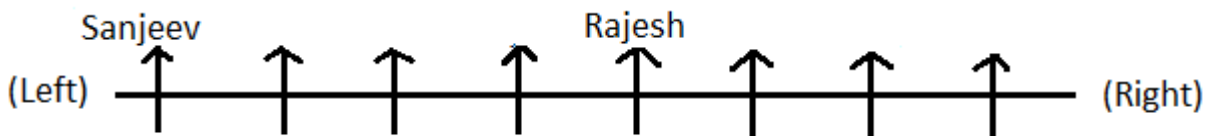**Question:** How many persons are sitting between Suresh and Manthan?
Note:

i) 8 friends – Gaurav, Rekha, Suresh, Manthan, Jaya, Megha, Sanjeev and Rajesh.
ii) All are facing north.
1) Rajesh's position is either at the sixth from the left end or fourth from the right of the line.
2) Sanjeev sits fourth to the left of Rajesh.
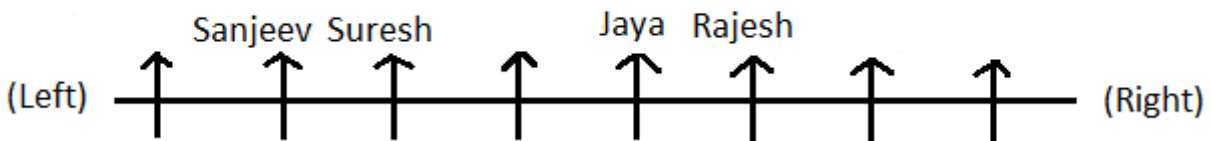(Hence, there will be two possible cases)

Case I:

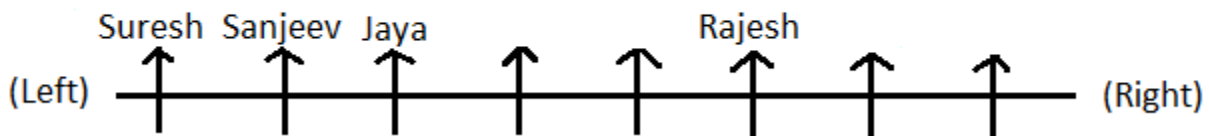Sanjeev                    Rajesh

(Left) ↑   ↑   ↑   ↑   ↑   ↑   ↑   ↑ (Right)

Case II:

Sanjeev                Rajesh

(Left) ↑   ↑   ↑   ↑   ↑   ↑   ↑   ↑ (Right)

3) Suresh is not adjacent to Rajesh.
4) Jaya is sitting second to the right of Suresh.
(Now, there will be three possible cases)

Case I:

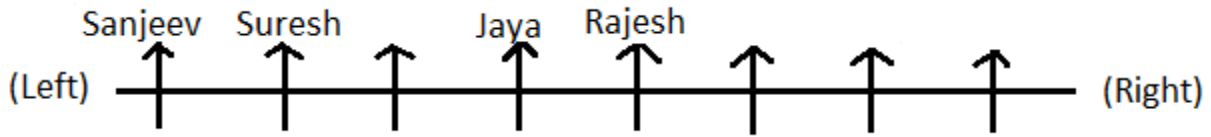Sanjeev Suresh        Jaya  Rajesh

(Left) ↑   ↑   ↑   ↑   ↑   ↑   ↑   ↑ (Right)

Case II:

Suresh Sanjeev Jaya            Rajesh

(Left) ↑   ↑   ↑   ↑   ↑   ↑   ↑   ↑ (Right)

Case III :

Sanjeev  Suresh        Jaya  Rajesh
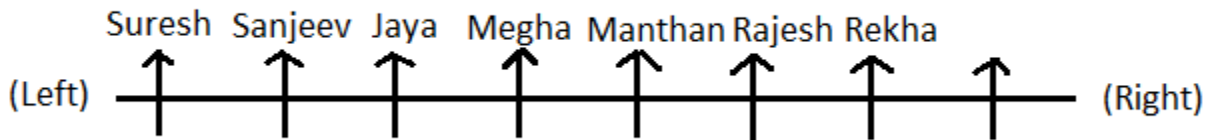
(Left) ——↑——↑——↑——↑——↑——↑——↑—— (Right)

5) Manthan and Megha are sitting adjacent to each other, while none of them is sitting at the end of the line.
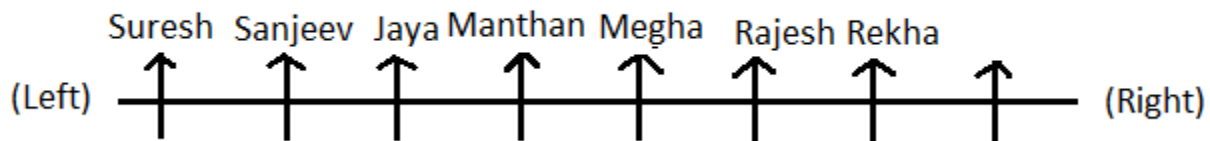(Hence, Case I will be eliminated, so we can further precede with case II and III).
6) Rekha is not sitting at any of the two ends.
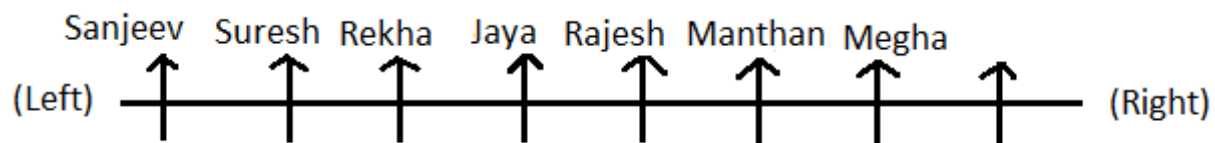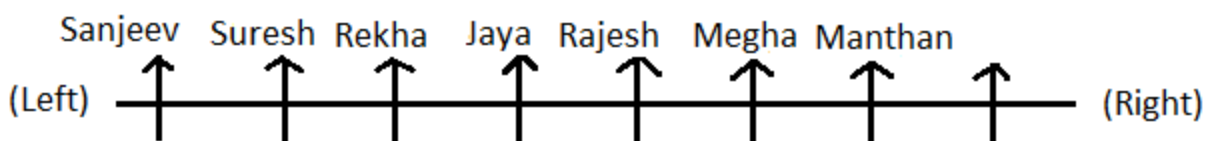(Now, there will be another two possible cases, hence there will be total four possible cases now)
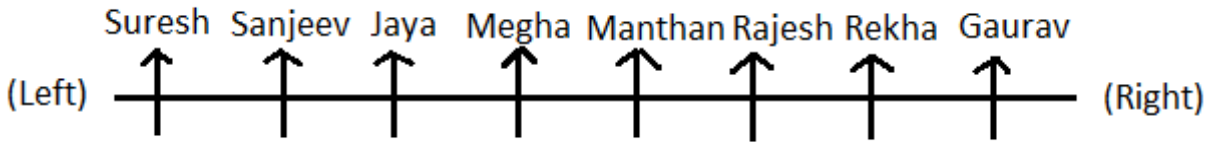
Case I:

Suresh  Sanjeev  Jaya  Megha  Manthan  Rajesh  Rekha

(Left) ——↑——↑——↑——↑——↑——↑——↑—— (Right)

Case II:

Suresh  Sanjeev  Jaya  Manthan  Megha  Rajesh  Rekha

(Left) ——↑——↑——↑——↑——↑——↑——↑—— (Right)

Case III:

Sanjeev  Suresh  Rekha  Jaya  Rajesh  Manthan  Megha

(Left) ——↑——↑——↑——↑——↑——↑——↑—— (Right)

Case IV:

Sanjeev  Suresh  Rekha  Jaya  Rajesh  Megha  Manthan

(Left) ——↑——↑——↑——↑——↑——↑——↑—— (Right)

7) Only one person is sitting between Manthan and Rekha.
(Hence, case III, IV and V will be eliminated, so we can further
proceed with case II)



Clearly, three persons are there between Suresh and Manthan.

**Question:** Which of the following person is sitting between the
persons who are fifth from the left and Rajesh?

Note:
i) 8 friends – Gaurav, Rekha, Suresh, Manthan, Jaya, Megha,
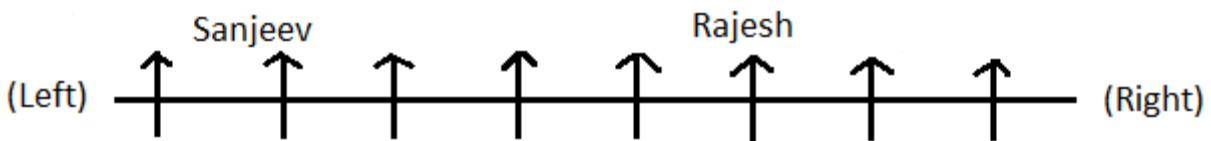Sanjeev and Rajesh.
ii) All are facing north.
1) Rajesh's position is either at the sixth from the left end or fourth
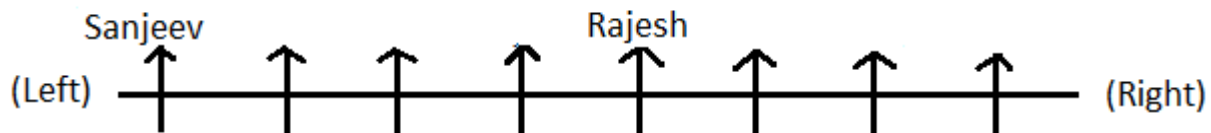from the right of the line.
2) Sanjeev sits fourth to the left of Rajesh.
(Hence, there will be two possible cases)
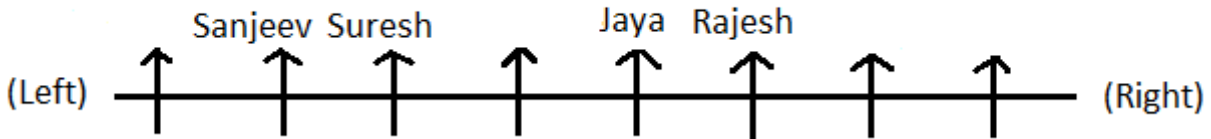
Case I:



Case II:



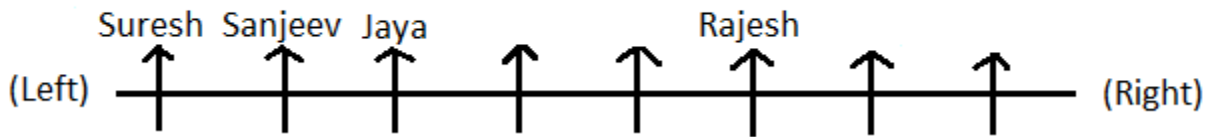3) Suresh is not adjacent to Rajesh.
4) Jaya is sitting second to the right of Suresh.

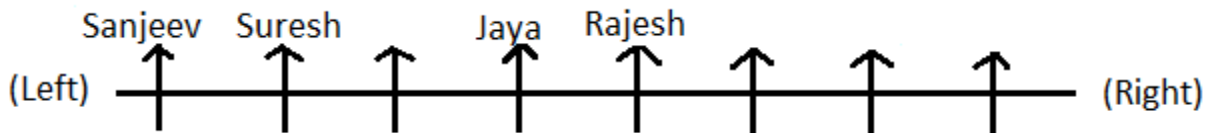(Now, there will be three possible cases)
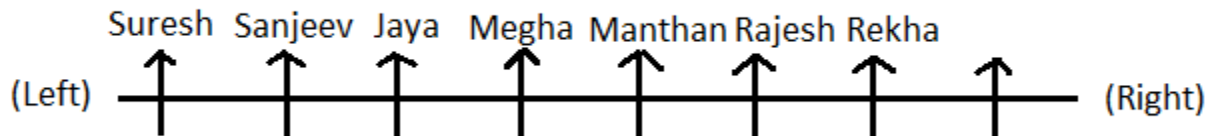
Case I:



Case II:



Case III :



5) Manthan and Megha are sitting adjacent to each other, while none of them is sitting at the end of the line.
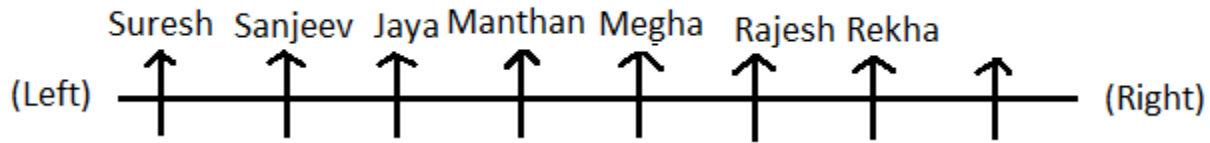(Hence, Case I will be eliminated, so we can further precede with case II and III).
6) Rekha is not sitting at any of the two ends.
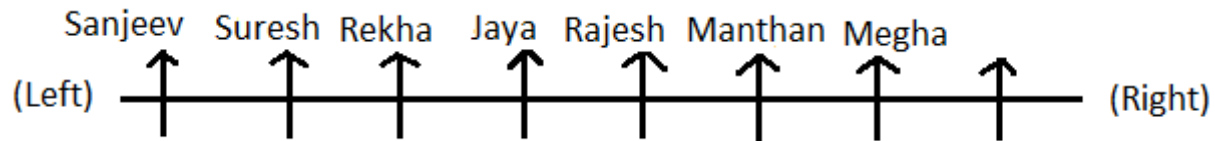(Now, there will be another two possible cases, hence there will be total four possible cases now)
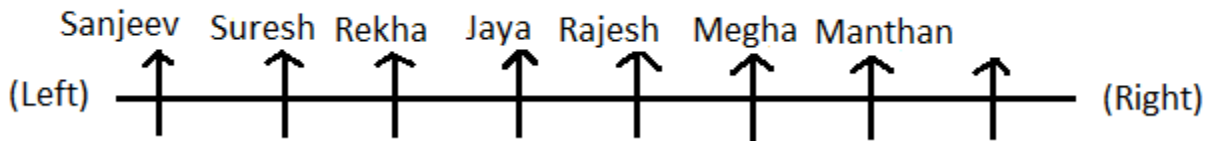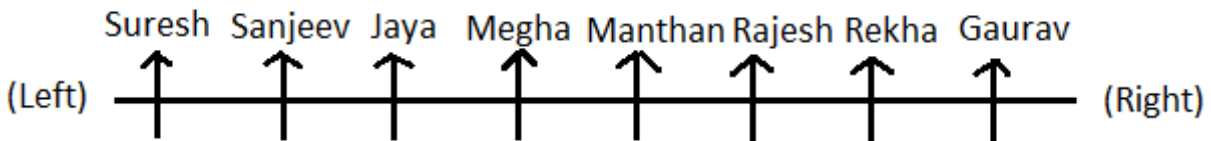
Case I:

Case II:

Suresh  Sanjeev  Jaya  Manthan  Megha  Rajesh  Rekha

(Left) ———————————————————— (Right)

Case III:

Sanjeev  Suresh  Rekha  Jaya  Rajesh  Manthan  Megha

(Left) ———————————————————— (Right)

Case IV:

Sanjeev  Suresh  Rekha  Jaya  Rajesh  Megha  Manthan

(Left) ———————————————————— (Right)

7) Only one person is sitting between Manthan and Rekha.
(Hence, case III, IV and V will be eliminated, so we can further proceed with case II)

Suresh  Sanjeev  Jaya  Megha  Manthan  Rajesh  Rekha  Gaurav

(Left) ———————————————————— (Right)

Clearly, Manthan is sitting fifth from left and Rajesh is sitting third from right, and hence no person is sitting between Manthan and Rajesh.