

7. Seating Arrangement Tricks

In Sitting Arrangement, we should arrange things based on the information provided. There are three types of Sitting Arrangement.

- 1) Linear Arrangement
- 2) Circular Arrangement
- 3) Square/Rectangular arrangement.

Linear Seating Arrangement

In linear (row) arrangement problems, we have to arrange the data linearly. The arrangement is done only one “axis” and hence, the position of people or objects assumes importance in terms of order like first position, second position, last position. In this type of arrangement, we take directions according to our left and right.

There are two types of problems asked in competitive exams, from this topic.

1. **One Row arrangement** – In one row arrangement problems, people or objects sits in a row either facing North or South. So, we have to make arrangement according to the direction of face of the people.
2. **Two Row arrangement** – In two row arrangement problems, there are two groups of people or objects sits in a two rows and people sitting in a first row facing North or South and vice versa.

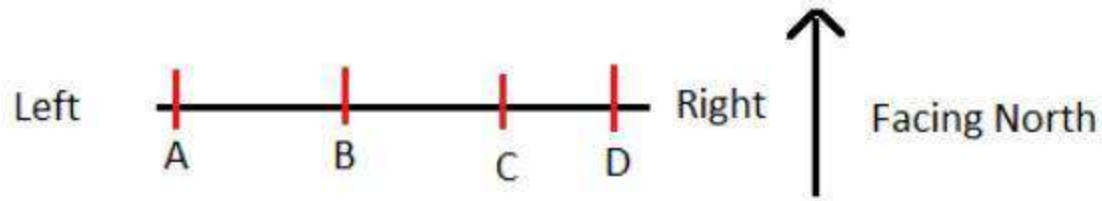
No matter what the model is, the following points are to be noted in order to solve the questions easily.

Read the entire information and understand the statements correctly

- Identify the statements that give definite information.
- For instance let us take three statements and evaluate them

One Row arrangement

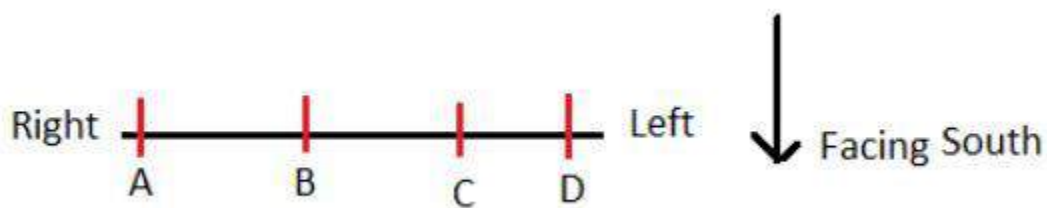
Now, let us understand with the figure. Four people A, B, C, D are sitting in a row facing North direction.



From the above figure, we can draw these **conclusions**:

- (i) A and D are sitting at the extreme end of the line.
- (ii) **Right** of A = B, C, D.
- (iii) **Left** of D = C, B, A
- (iv) A is sitting immediate left of B. B is sitting immediate left of C. C is sitting immediate left of D.
- (v) B is sitting immediate right of A. C is sitting immediate right of B. D is sitting immediate right of C.
- (vi) A is sitting second to the left of C. B is sitting second to the left of D.
- (vii) C is sitting second to the right of A. D is sitting second to the right of B.
- (viii) A is sitting third to the left of D. D is sitting third to the right of A.

Four people A, B, C, D are sitting in a row facing South direction



From the above figure, we can draw these **conclusions**:

- (i) A and D are sitting at the extreme end of the line.
- (ii) **Left** of A = B, C, D.
- (iii) **Right** of D = C, B, A

(iv) A is sitting immediate right of B. B is sitting immediate right of C. C is sitting immediate right of D.

(v) B is sitting immediate left of A. C is sitting immediate left of B. D is sitting immediate left of C.

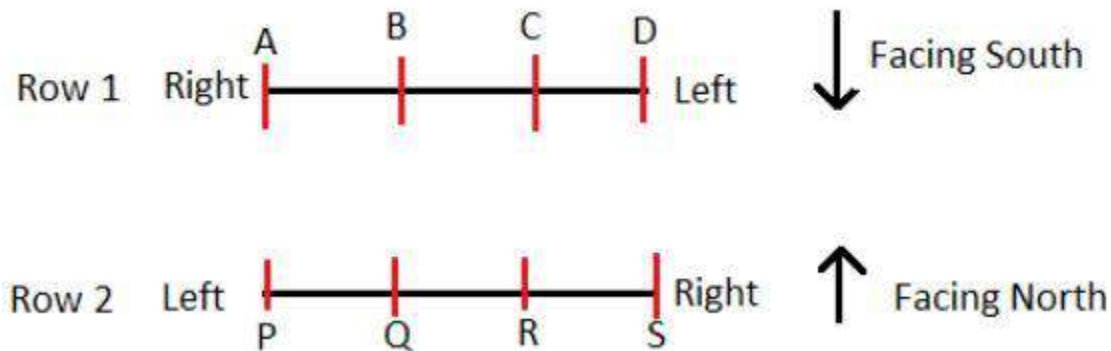
(vi) A is sitting second to the right of C. B is sitting second to the right of D.

(vii) C is sitting second to the left of A. D is sitting second to the left of B.

(viii) A is sitting third to the right of D. D is sitting third to the left of A.

Two Row arrangements

Now, let us understand with the figure. Eight people are sitting in two parallel rows containing four people each in row, such a way that there is an equal distance between adjacent persons. In row 1, A, B, C, and D are sitting and all of them are facing South. In row 2, P, Q, R, and S are sitting and all of them are facing North.



From the above figure, we can draw these **conclusions**:

- (i) A, D, and P, S are sitting extreme end of the line.
- (ii) A is sitting opposite to P. B is sitting opposite to Q. C is sitting opposite to R. D is sitting opposite to S.
- (iii) A and S is sitting diagonally opposite to each other.
- (iv) D and P is sitting diagonally opposite to each other.
- (v) B and R is sitting diagonally opposite to each other.
- (vi) C and Q is sitting diagonally opposite to each other.

Solved Example (Based on One row arrangement problems)

Question (1) – Anil, Bobby, Charu, Deepak, Esha, Faizal, Gaurav and Harish are sitting in a row facing North.

(i) Anil is fourth to the right of Esha.

(ii) Harish is fourth to the left of Deepak.

(iii) Charu and Faizal, who are not sitting at extreme ends of the line, are neighbours of Bobby and Esha respectively.

(iv) Harish is next to the left of Anil and Anil is the neighbor of Bobby.

STEPS TO SOLVE THE QUESTION

From the first information (i), we get that there are three persons between Anil and Esha.

Esha _ _ _ Anil

In the information (iv), we get that Harish is next to the left of Anil and Anil is the neighbor of Bobby. Using the information (i) we get –

Esha _ _ Harish Anil Bobby

By the information (ii), Harish is fourth to the left of Deepak

Esha _ _ Harish Anil Bobby _ Deepak

By the information (iii), Charu and Faizal, who are not sitting at extreme ends of the line, are neighbours of Bobby and Esha respectively.

Esha Faizal _ Harish Anil Bobby Charu Deepak

So, we can assume Gaurav is sitting between Faizal and Harish.



So, Esha and Deepak is sitting at the extreme ends of the line.

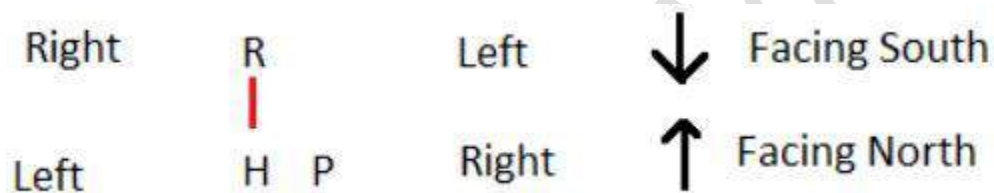
Solved Example (Based on Two row arrangement problems)

Question (1) Eight members P, Q, R, S, T, V, H and L are sitting in two rows with equal number of members in each row. Members of one row are facing North and those in other row are facing South. Each member in one row is sitting exactly opposite a member in the other row.

- (i) P sits in the row facing North, to the immediate right of H who is exactly opposite of R.
- (ii) L is to immediate right of R and S is exactly opposite of T who is to the immediate right of P.
- (iii) V does not sit at any of the ends any row.

STEPS TO SOLVE THE QUESTION

From the (i) information it is clear, that P and H is facing North and R is facing South.



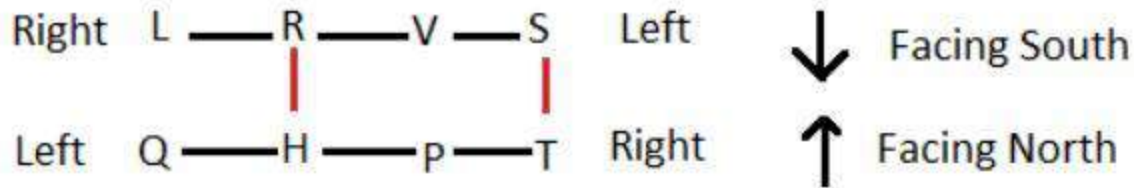
From the (ii) information, we get



From the (iii) information, we get



So, now only Q remains who is sitting one of the extreme ends of the line.



Points to Remember

The Meaning of **and**, **who** and **adjacent** in seating arrangement questions:

1. If two information is joining by "**and**", than the information is talking about the first person.

For e.g. – A is third to the left of B and second to the right of D.

Here it means – A is sitting third to the left of B and also A is sitting second to the right of D. Many student's confuse here and take information as a – A is sitting third to the left of B and B is sitting second to the right of D, which is wrong.

2. If two information is joining by "**who**", than the information given after "**who**" is talking about the second person.

For e.g. – A is third to the left of B who is second to the right of D.

Here it means – **A is sitting third to the left of B and B is sitting second to the right of D.**

Many student's confuse here and take information as a – A is sitting third to the left of B and also A is sitting second to the right of D, which is wrong.

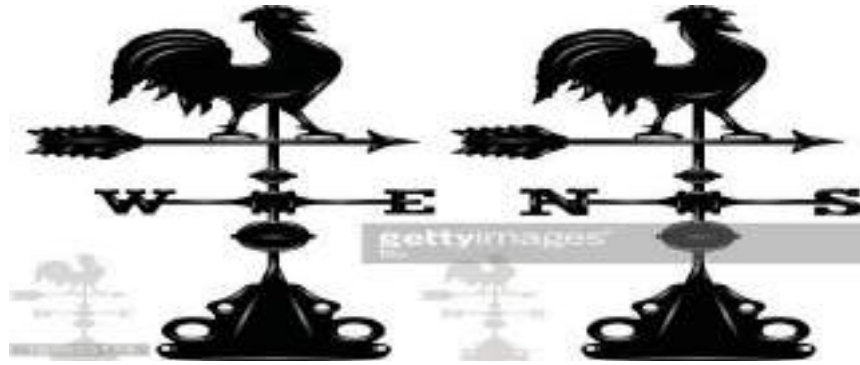
3. **Adjacent** – means – next to each other not opposite to each other. A and B is adjacent to each other, which means they are immediate neighbor of each other.

Circular Seating Arrangement

Circle is the most important case from the exam point of view. Most of the times Circle kind of statements are there in exams.

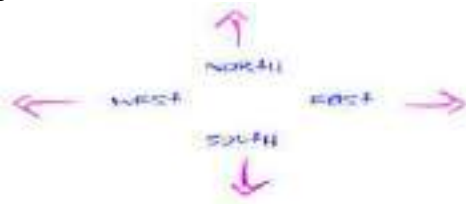
From the exam point of view ,In most cases they give 8 person sitting in the circle. But Before Solving the important thing is their ' Sitting position '.

Step 1 . Knowing NEWS! N= North , E= East , W=West , S= South



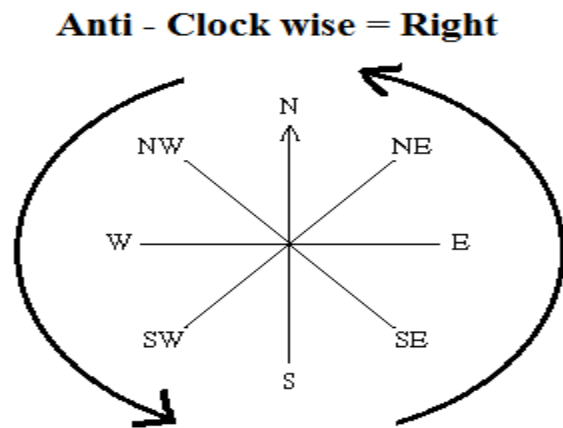
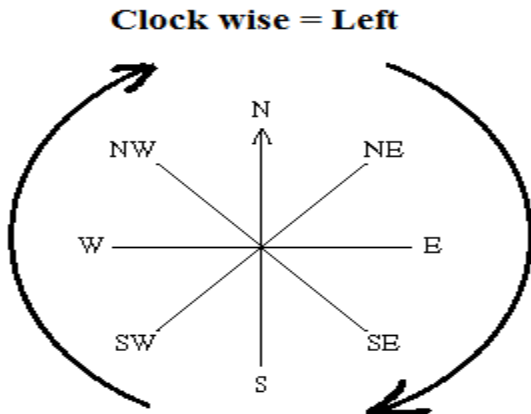
To remember this just remember combination ' North - South ' & ' West - East ' which comes together to each other respectively.

So remember " WE are Not S smokers" for combination
Now just place like this on paper



Step 2 : Picking Left & Right .

- Facing Center



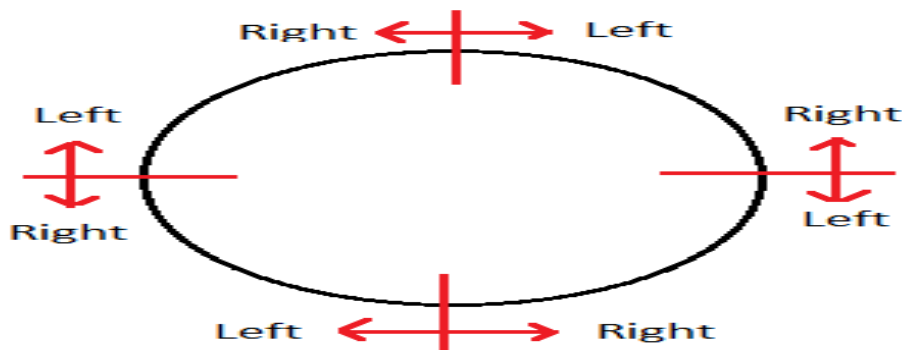
- Facing Outside

If It is mention in the statement that all is facing outside then just do opposite of above like this:
Clock wise = Right & Anti- clock wise = Left

Step 3: Solving Step Wise the statement or Following the statement

Circular Sitting Arrangement (Normal) In circular sitting arrangement, you have to arrange people or objects around a circle, as per the given information in the questions.

Circular Arrangement In normal circular arrangement, persons are sitting around a circle and facing the centre.



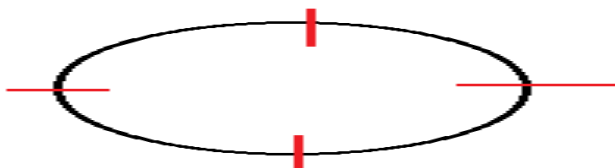
1. Left movement is called clock- wise rotation.
2. Right movement is called anti – clock- wise rotation.

According to the information, you have to specify the position of all the persons in the arrangement. The positions are specified through conditions like a particular person is sitting right or left of another person.

For e.g.

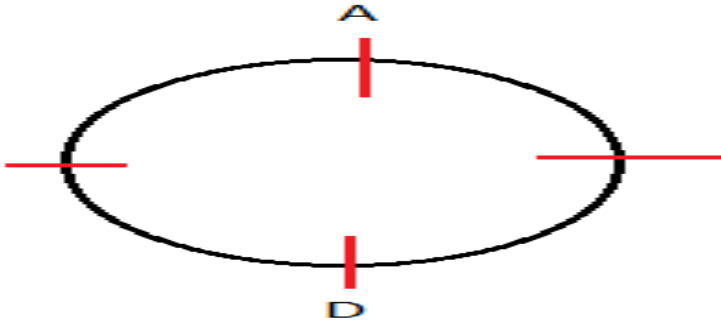
Question – Four persons are A, B, C and D is sitting in a circle facing the centre. A is sitting second to the left of D. C is sitting third to the right of A. C is sitting opposite to B.

- (i) First step is to read the information and draw a circle.

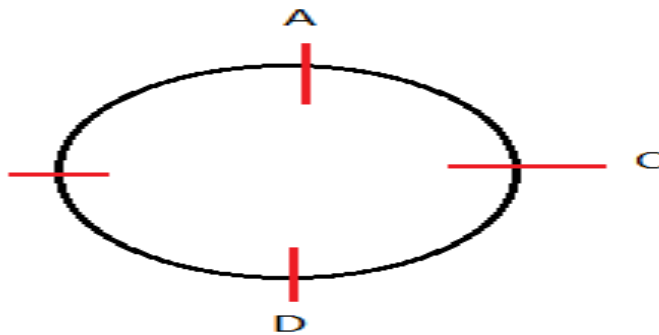


- (ii) After drawing a circle, find out who is on right side and who is on left side of.

(iii) Pick one information first and solve the questions accordingly. In question, it is given A is sitting second to the left of D. So, you have to fix the place of A and D in a circle.

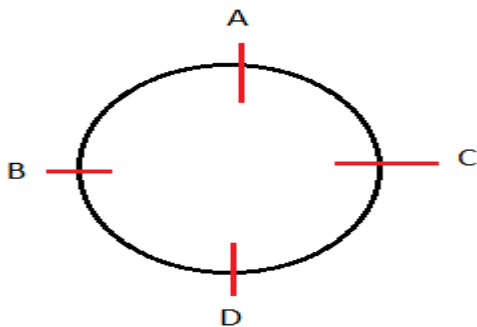


After fixing the place of A and D, we will move to another information. Now, here it is given, C



is sitting third to the right of A.

After fixing the place of A, D and C, we will move to another information. C is sitting opposite



to B.

Solved Example:

Question: Eight friends P, Q, R, S, T, U, V and W are sitting in a circle facing the centre. Q is sitting between V and S. W is third to the left of Q and second to the right of P. R is sitting between P and V. Q and T are not sitting opposite to each other.

1. Who is third to the left of S?
 1. U
 2. T

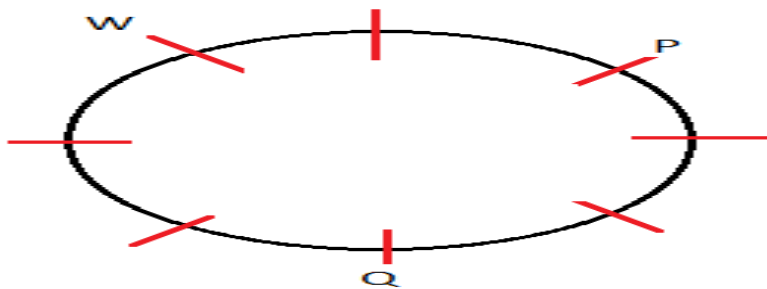
3. P
 4. Cannot be determined
 5. None of these
2. Which of the following statement is not correct?
1. S and P are sitting opposite to each other
 2. R is third to the right of S
 3. T is sitting between U and S
 4. P is sitting between R and U
 5. T and R is sitting opposite to each other.

Solutions: First step is to draw a circular figure having eight persons. Now, fix the place of the persons or friends one by one according to the information.

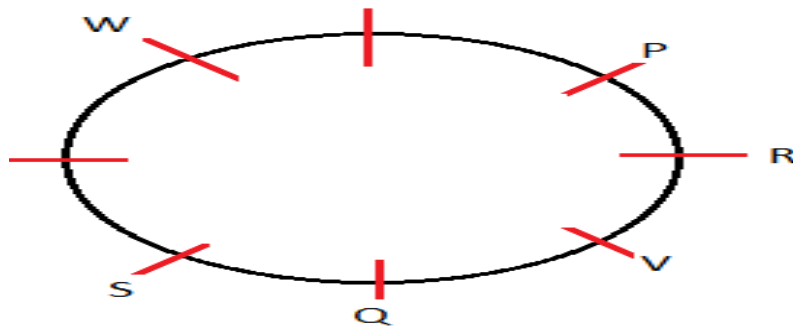
Q is sitting between V and S. Here position of V and S is exactly not confirm, so we will skip this information and move to another information, which will fix the place of the person in a circle in a specific place.

Next information is – W is third to the left of Q and second to the right of P.

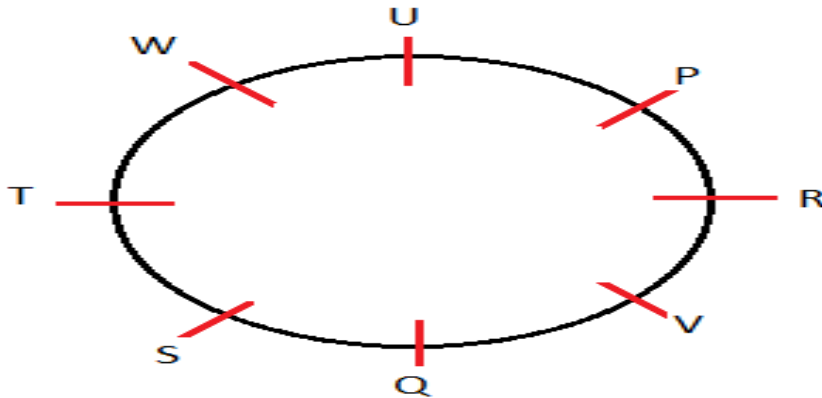
Here, it is important to note that – W is third to the left of Q and also second to the right of P. Some student's confuse in this information and pick information as Q is second to the right of P, which is wrong.



After the fixing the place of W, P and Q we will move to another information. R is sitting between P and V. Q is sitting between V and S.



After the fixing the place of W, P, Q, V, R and S; we will move to another information. Q and T are not sitting opposite to each other means opposite of Q is U and T is sitting between S and W.



Now the correct answers is

1. (1) Third to the left of S is U.
2. (3) T is sitting between U and S is wrong statement.

Tips to solve ‘Seating Arrangement’ questions

1. First step is to take a quick glance on the given information and you will get an idea of the situation of the persons.
2. Second step is to pick the useful information which is “definite information” and fix the place accordingly. For e.g. – A is sitting second to the left of B.
3. Do not pick the negative information in first step. Negative information means – which information does not tell anything definitely but it gives an idea to eliminate a possibility. For e.g. – A is not sitting on the immediate left of B. or B is not opposite of E.

Important note: Meaning of – **and**, **who** and **adjacent** in seating arrangement.

1. If two information is joining by “**and**”, than the information is talking about the first person. For e.g. – A is third to the left of B and second to the right of D. Here it means – A is sitting third to the left of B and also A is sitting second to the right of D. Many student’s confuse here and take information as a – A is sitting third to the left of B and B is sitting second to the right of D, which is wrong.
2. If two information is joining by “**who**”, than the information given after “**who**” is talking about the second person. For e.g. – A is third to the left of B who is second to the right of D. Here it means – **A is sitting third to the left of B and B is sitting second to the right of D**. Many student’s confuse here and take information as a – A is sitting third to the left of B and also A is sitting second to the right of D, which is wrong.
3. **Adjacent** – means – next to each other not opposite to each other. A and B is adjacent to each other, which means they are immediate neighbor of each other.

In continuation with our article on Sitting Arrangement which, here we are posting some tricks to solve more complicated questions from the topic which are becoming very common in the recent Banking Exams.

No matter what the model is, the following points are to be noted in order to solve the questions easily.

Read the entire puzzle and understand the statements correctly

- Identify the statements that give definite information.
- For instance let us take three statements and evaluate them

Statement 1: A is to the left of B.

The data in the statement is basic but not definite as the statement ONLY says that A is to the left of B. but, it does not specify where A is located from B.

Statement 2: A is second to the left of B. The data in the statement is definite as it clearly states that A is placed second to the left of B.

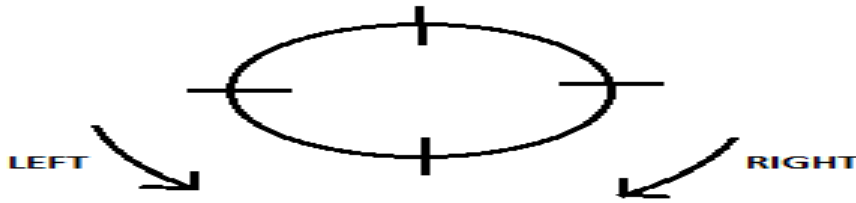
Some important points to be kept in mind before solving the sitting arrangement puzzles are:

- If A is sitting immediate left of B, it means B is on immediate right of A.
- To avoid confusion of left and rights in circular and other shapes' seating arrangement problems, you should assume that all people are facing to center (unless and until they specify the direction).
- It's always better idea to assume you are one among them so that it will be easier for you to get an idea of the arrangement.
- If you are unable to get the idea from a line then better skip that line and go to next line. You can revisit to the skipped line after getting another clue.

For circular sitting arrangement those objects which are facing inwards to the center are favorable to us which means LEFT-RIGHT position are same to reference object and those objects which are facing outwards are unfavorable to us which means LEFT-RIGHT position are opposite to reference object.

Persons sitting in a CIRCLE or RECTANGLE or SQUARE facing **AWAY** from centre:

- Seated to the left = Take Anti-clockwise direction
- Seated to the right = Take clockwise direction



Such types of problems are solved in the same manner as the problems for the centre facing people are solved. The only change in this case is the direction of reference changes which confuses the candidates.

But now-a-days, questions of some different pattern are asked in Bank exams like Some people are facing inward while some of them are facing outwards.

Let us see how to solve such questions without getting panic.

Question:

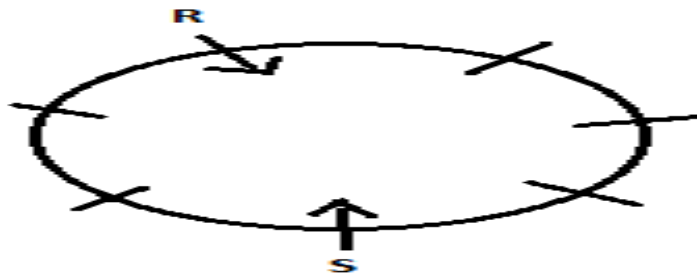
P, Q, R, S, T, U and V are sitting in a circle. Five of them are facing the center while two of them are facing opposite to the center. R sits third to the left of S and both are facing the center. T is neither an immediate member of S nor of R. The one sitting exactly between S and U is facing to the center. V sits third to the left of P and V is facing opposite to the center. One of Q's neighbors is facing opposite to the center.

STEPS TO SOLVE THE QUESTION

Draw a circle. Mark all position of objects in the circle.

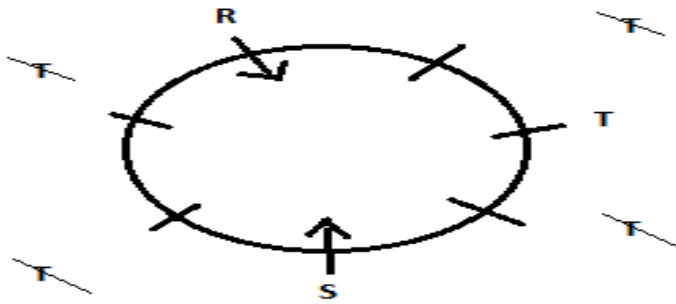
Note: Five of them are facing center means favorable to us and then left two are facing outward means unfavorable to us.

Now put S on the middle bottom position of the circle and position R on left side (Clockwise



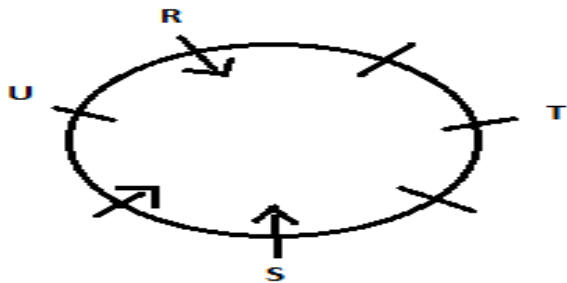
direction) to S.

T is neither an immediate member of S nor of R. the statement leaves a single place for T to sit.



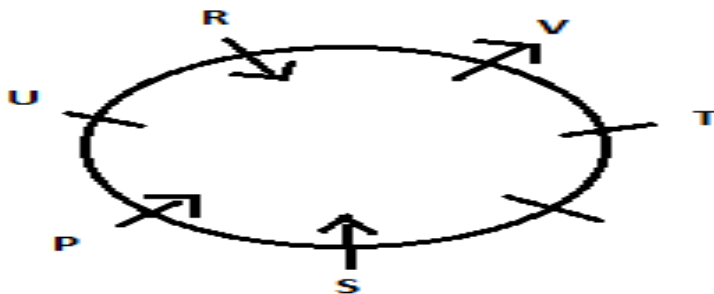
The one sitting exactly between S and U is facing to the center.

Then put U from left of S by leaving one position blank.



V sits third to the left of P and V is facing outside to the center.

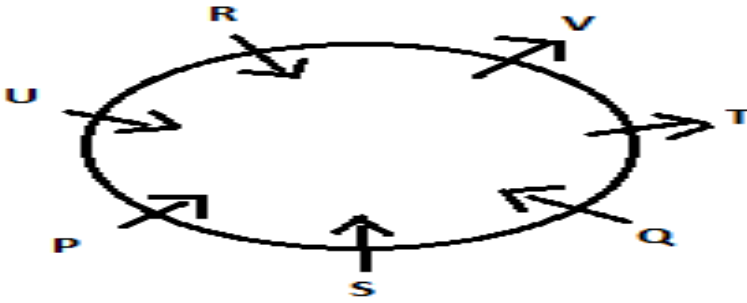
In this case position of P and V is not discussed in reference to all other objects. So their position can be done by hit and trial method which is based on most convenient positions.



Now the left place is the only option for Q to sit.

As per the statement, one of Q's neighbors is facing opposite to the center. This clearly tells us that T is facing opposite to the centre. And according to the question, since five of them are

facing the centre, so U and Q also face the centre. So, the final diagram we get is



Now, since you have understood the Concepts and Shortcuts on Inward- Outward seating arrangement, you can attempt a quiz.

Example – 1 (A simple problem)

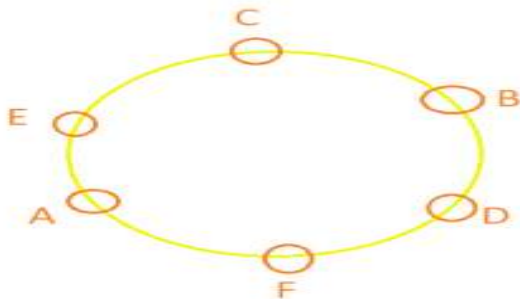
Six friends A, B, C, D, E, and F are seated in a circle facing inwards.

F is between A and D.

C is between E and B.

E is not between C and D.

D is second to the left of C.



Steps:

First – Draw a Circle.

Second – We know there are Six friend. So Mark six points in the circle.

Third – Check statement 2. F is between A and D. It's a circle. So you can place these 3 (F, A, and D) in any three places. The only condition is F should be in the middle of A and D.

Fourth – Check the last statement. Now you can place C easily.

Fifth – Now you have to place E and B. According to Statement V, E is not between C and D. That makes E to come between A and C. The only remaining place is for B.

Then based on this diagram, you have to answer 5 questions.

That's it. :-).

Example -2

Six friends – Arun, Senthil, Praveen, Bharani, Avinnash, Karthik – are standing straight line facing North but not necessarily in same order.

1. Arun is standing Fourth to the left of Karthik.
2. Senthil is standing Second to the right of Bharani.
3. Praveen is standing second to the right of Senthil.
4. Karthik is not standing of the extreme end of this line.

Totally Six positions in a Straight Line. All are facing North.

When taking the first condition alone, we get two chances. That is Arun may either come in First Position or in Second Position. Based on Arun's position Karthik may either come in 5th or 6th position. See Condition 4. Karthik is not in extreme end. So that make Karthik to come in V position and Arun in I position.

Arun – _____ – _____ – _____ – Karthik – _____.

Now Condition 2. Senthil can come in position 4 or position 6. Assume he comes in position 6.

Arun – _____ – _____ – Bharani – Karthik – Senthil.

Our assumption is wrong. Because according to Statement 3, Praveen is standing to the right of Senthil.

So that makes Senthil to come in Place 4.

Arun – Bharani – _____ – Senthil – Karthik – Praveen.

The remaining place (3rd position) is for Avinnash.

Arun – Bharani – Avinnash – Senthil – Karthik – Praveen.

Example 3

Seven members A, B, C, D, E, F, G are sitting in a circle.

F is third to the left of B.

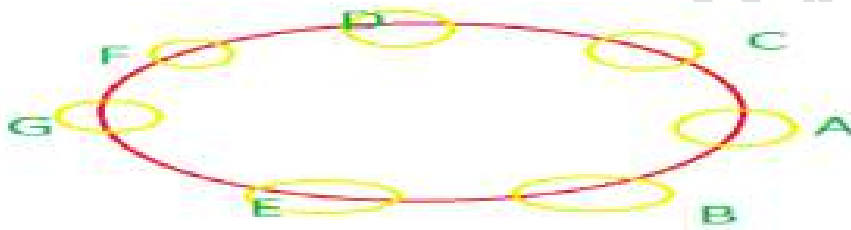
G is third to the left of A.

D is not the neighbour of G.

C is the neighbour of A.

B is to the immediate left of A.

Whenever solving with Circular Arrangements, we can take any condition and start drawing. It is not necessary to start from the first. In the above conditions, 'A' is there in 3 conditions. So it is better to start with the Second Condition.



Example 4

Five friends are sitting in a row facing North.

1. Dhivya is between Soumya and Sindhuja.
2. Sindhuja is to the immediate right of Amrutha.
3. Nisha is to the right of Soumya. Correct order is?

According to first condition – Sindhuja – Dhivya – Soumya (These 3 will stick in this order).

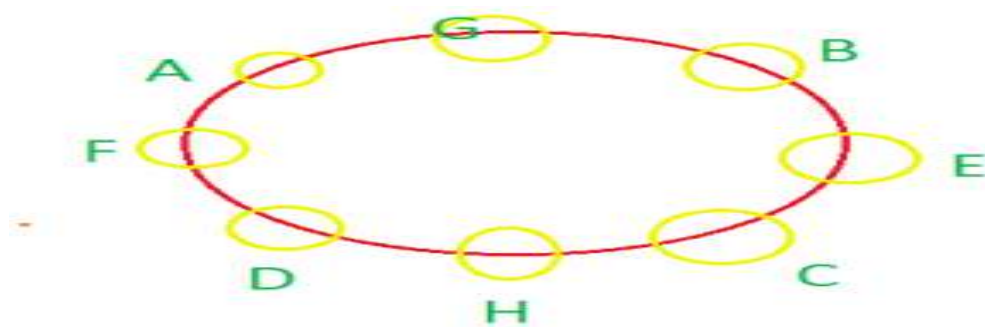
II Statement – Amrutha – Sindhuja – Dhivya – Soumya

III Statement – Amrutha – Sindhuja – Dhivya – Soumya – Nisha

Example – 5

A, B, C, D, E, F, G, H are sitting around the circle facing center.

- 1) F is Third to the right of B who is third to the right of H.
- 2) A is third to the left of H.
- 3) C is fourth to the left of A.
- 4) E is third to the right of D.
- 5) D is not the neighbour of A.

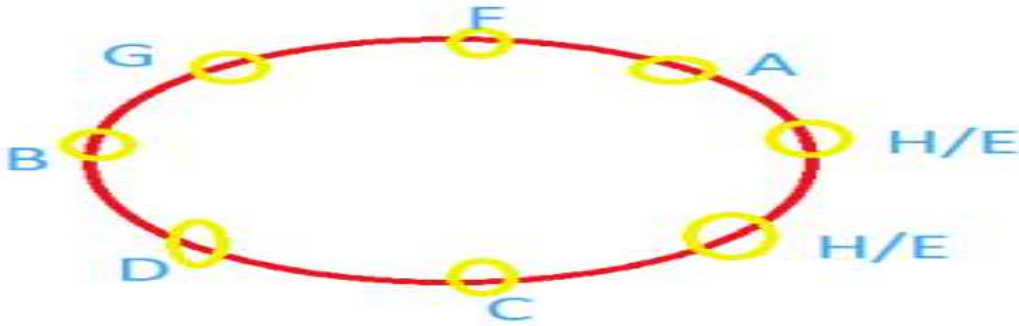


Follow from the First Condition. All other alphabets will fall in place easily.

Problem 1

Eight Friends, A, B, C, D, E, F, G and H are sitting around a circular table facing center but not in same order.

- 1) Three people are sitting between A and D.
- 2) B is sitting second to the right of F.
- 3) D is not an immediate neighbour of either F or E.
- 4) H is not an immediate neighbour of B.
- 5) F and C are sitting opposite to each other.
- 6) G is not an immediate neighbour of E



In some questions, there will be more than one possibility for a particular place. In those cases either cannot be determined will be the answer or it may be based on the given options.

It's not a tough one.

Ram and five of his friends went to a park and they started playing six-seater merry-go-round. It rotates in clockwise direction. Each seat is designed with different animals. Each child wears a hat of different colour. Find the position of each child, the animal they ride and the colour of their hat.

Note: Merry-go-round turns clockwise. Seat no 1 is in front of Seat no 6. Seat no 2 is in front of Seat no 1... etc.

Conditions:

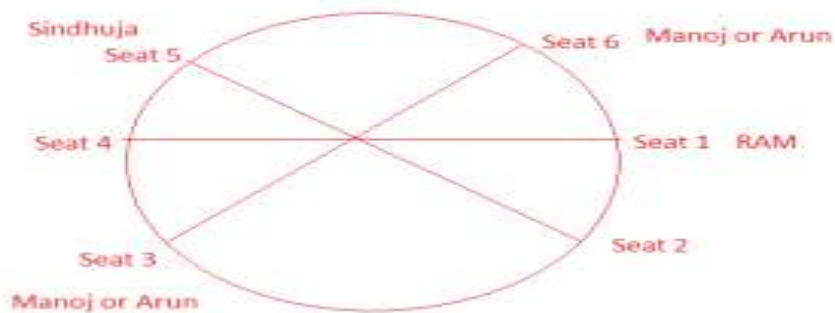
- 1) Ram sat in seat 1.
- 2) Raju rode the horse (which is not seat 2)
- 3) Arun sat right behind the Rhinoceros
- 4) Sindhuja sat in seat 5 and she is not a girl who is wearing purple hat.
- 5) The child riding the alligator was not wearing a yellow hat.
- 6) Soumya and the child in front of her were in some order, the child with red hat and the child riding the tiger.
- 7) The boy on the elephant wore a green hat
- 8) The child riding Hippopotamus was not wearing an Orange or Yellow hat
- 9) Manoj (who was directly opposite to Arun) was just behind the child with the blue hat.

Before start drawing, we need to categorize the names, animals and colours.

Names are Arun, Ram, Raju, Manoj, Soumya, Sindhuja.

Colours are Orange, Red, Yellow, Purple, Green, Blue.

Animals are Tiger, Horse, Rhino, Hippo, Alligator, Elephant.

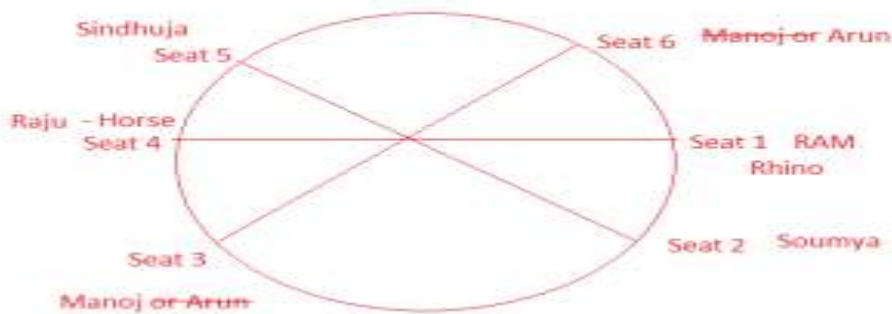


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Ram is Seat 1 and

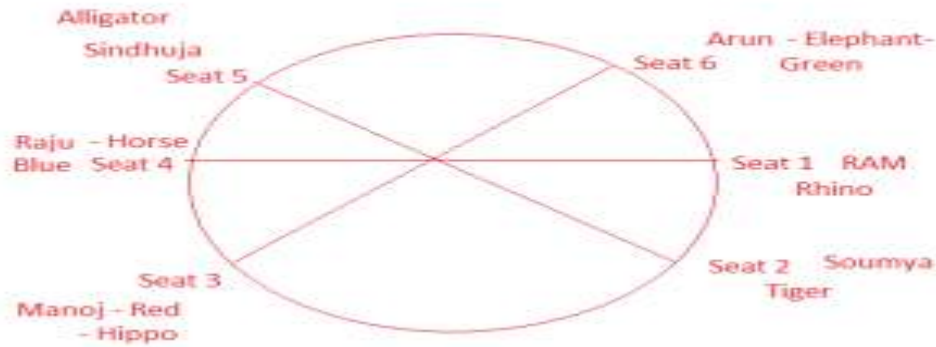
Sindhuja in Seat 5 (From clues 1 and 4). We mark it.

From Clue 9 – Manoj sits opposite to Arun. (The only available opposite seats are 3 and 6). We mark that too.



According to Clue 2, Raju rode Horse, which is not Seat 2. The only choice is Seat 4.

Clue -3 states Arun sat behind the Rhinoceros. So Seat 3 is for Manoj and Seat 6 is for Arun. Also Seat 1 – Rhino.



From Clue 6 we can mark Red hat for Manoj and Tiger in Seat 2.

From Clue 9 we can mark Blue for Raju.

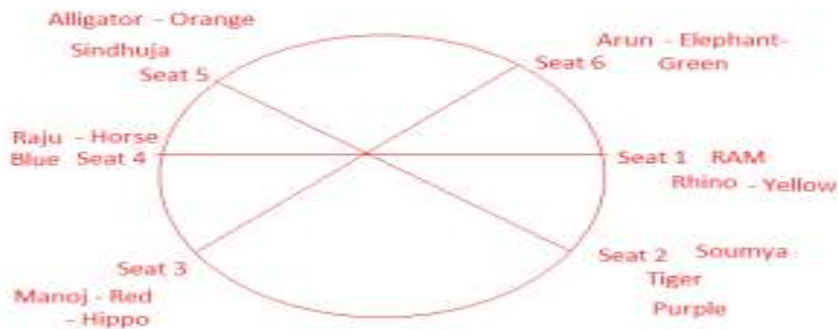
The only Boy without an animal and Hat is Arun. So He is in Elephant seat and wears Green hat.

The remaining animals are Hippo and Alligator. Remaining colours are Purple, Yellow, Orange.

Sindhuja will either wear Yellow or Orange. She is not wearing Purple hat (Clue 4).

From clue 8, we can say Manoj is riding Hippo and Sindhuja is riding Alligator.

Now we placed all names on seats and also the animals. The only thing remaining is marking the colours of the hat.



Sindhuja is not a girl who is wearing Purple hat. It means there is some other girl who wears Purple hat. The only option is Soumya.

Girl in Alligator is not wearing Yellow. So Alligator and Orange matches. Yellow goes to Ram.

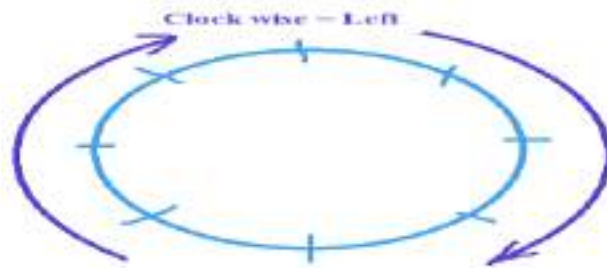
The problem is done. It's easy only. I just expanded for your understanding.

Example :

Eight people E, F, G, H, J, K, L and M are sitting around a circular table facing the center. 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 neighbor 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 neighbor 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 neighbor of the Engineer. G is second to the right of Chartered Accountant.

Before solving remember

1. No of Persons = 8 , No of Profession = 8
2. Facing Center
3. 8 persons → 8 profession

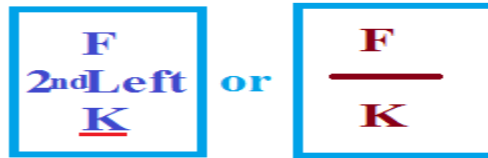


Persons	Professions
E	
F	
G	
H	
J	
K	
L	
M	

Step 4 : Break statement into Shortcuts

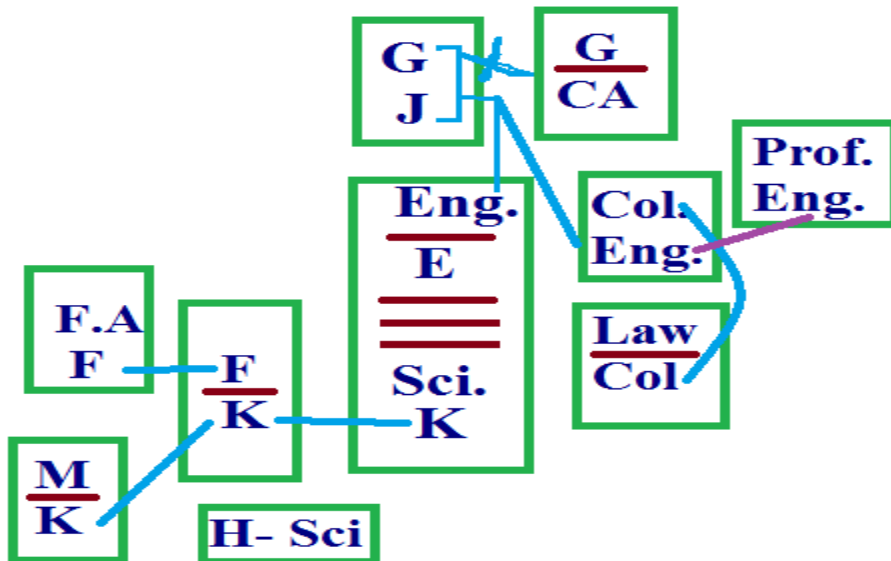
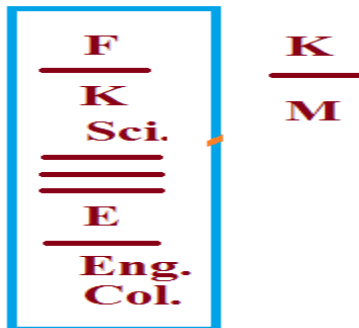
Statement: F is sitting second to the left of K.

We can write it as:



[Note : The Above diagram shows that there is one place vacant between F & K]

Will get like this:



Step 5. Applying these Shortcuts into Circle Diagram

Be careful while positioning or placing Scientist and Engineer. There you need to make two diagram for each.

Step a) Pick any place and place it there the one person whom you want to be placed.

(Be careful while choosing that particular person or element like here E, F,G,H,J,K,L,M,N)

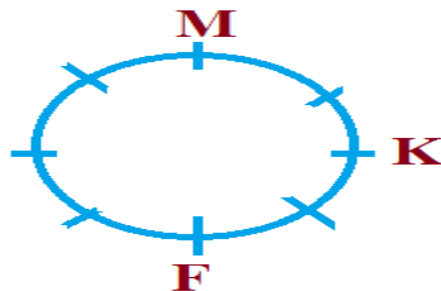
The one person or element you choose, should be relate with at least 2 element of the statement because it will make the other step easy for you. Try to choose the co-relating element which help you to fill the maximum space or seats or corners or places and Always choose the one in which you know the exact location (Left or Right). Now here i choose F. F relates with K and M

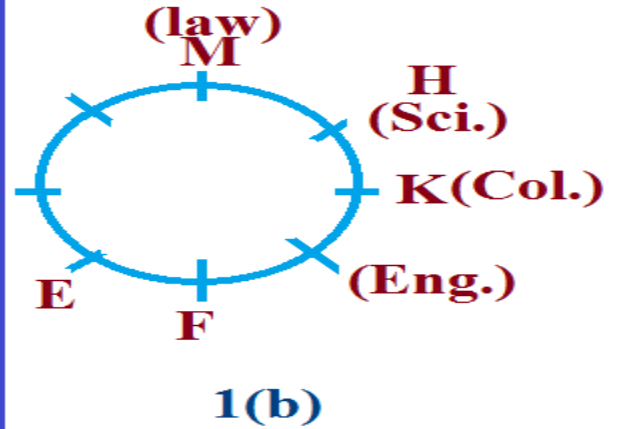
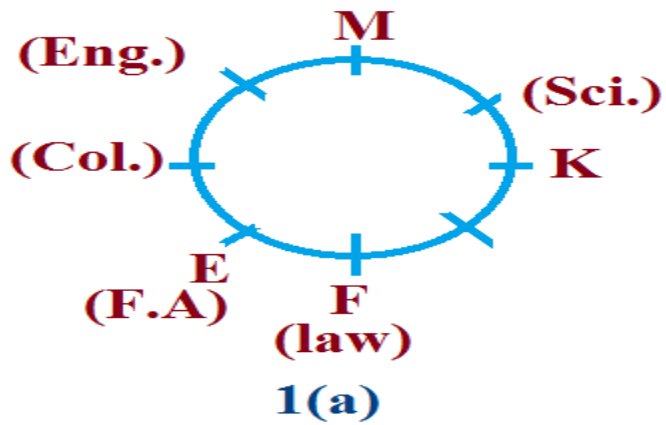
[Note: Don't go again & again for reading whole statement, just use the shortcuts that you have made]

Step b) Now check whether the already placed element co-relate with any other elements. like here

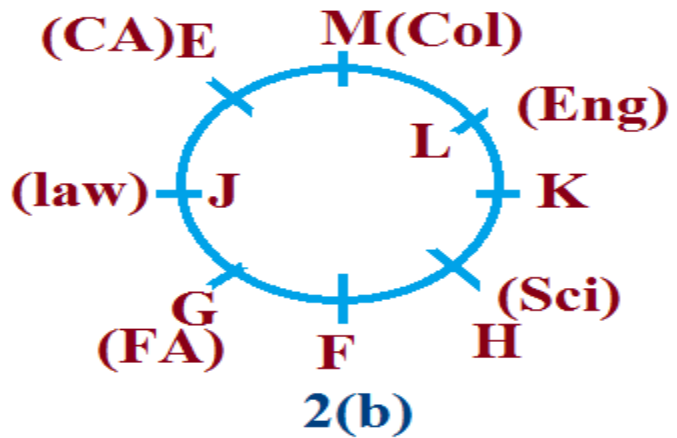
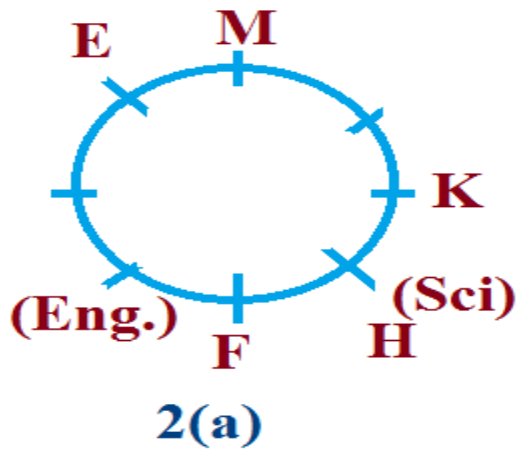
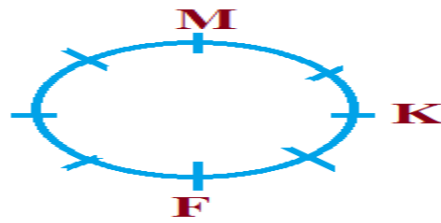
The Scientist is an immediate neighbor of K. So here is the relation between K & Scientist. Now here we don't know the exact position of Scientist. So Most of cases you will find this kind of problem. When there is a two possibility then it is Called ' T ' point.

Step c) Find whether there is any T point in a statement. Solve it by making two different diagram. Like here 1(a) & 2(a) which will further be checked whether these diagram satisfied the other problems or condition or statement given in the question. If it is not then make other two diagram. Like Here (1b & 2b). At the end , you will get the answer.

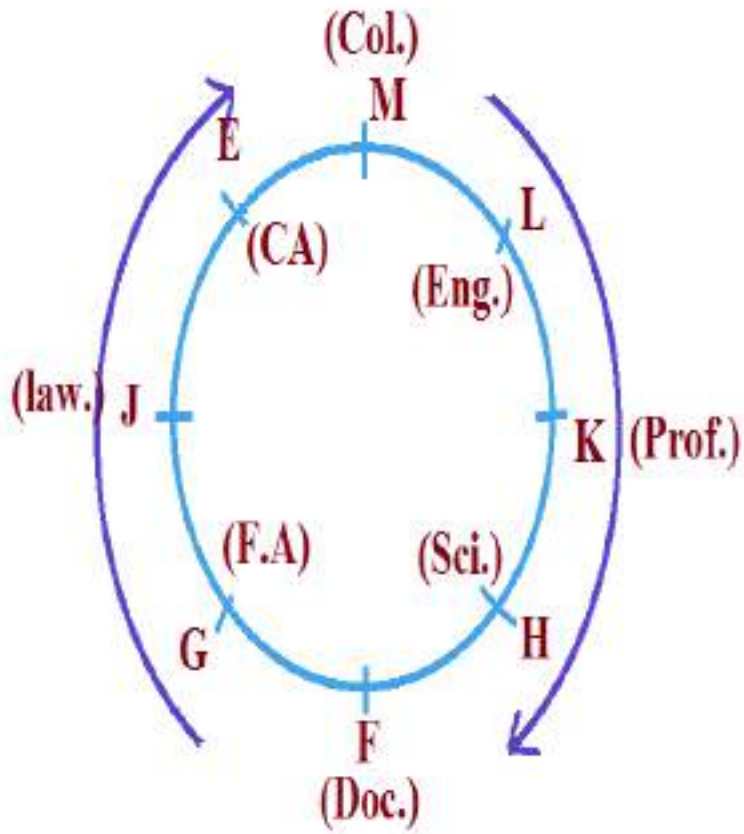




In 1(a) & 1(b) We are unable to position the person G & J. So 1(a) & 1(b) diagram is not possible. Now Move to 2(a).



In 2(a) Engineer cannot be placed next to F. So 2(a) diagram is not possible.



Clock wise=Left
Anti-clock wise = Right

Govet