SBI PO Mains Question & Answers

Reasoning

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

Ten persons i.e. C, D, E, F, J, K, S, T, U and V are sitting around two hollow shaped table. One table is inscribed in another table. The inner table is pentagon shaped and the outer table is circular shaped. Five persons are sitting at the corners of the inner table and five persons are sitting in outer table such that they are sitting opposite to the persons who are sitting in the inner table. The persons who are sitting in inner table are facing outside the table and the persons who are sitting in the outer table are facing inside the table. They all like different Pet i.e. Rabbit, Dog, Horse, Fish, Mouse, Pigeon, Turtle, Parrot, Cat and Sparrow. All the information is not necessarily in the same order.

C likes Mouse and faces J, who sits 2nd to the left of E. Both T and S are the neighbors of C. The one who likes Turtle faces F who sits 2nd to the left of J. The one who likes Dog faces S. The one likes Horse sits 2nd to the right of E. U sits just to the left of S. The one who likes Cat sits 2nd to the left of K and faces the one who likes Parrot. J doesn't like Pigeon. The one who likes Sparrow faces the one who is just to the left of T. K sits 2nd to the left of the one who likes Dog. V sits just to the right of the one who likes Pigeon. V sits in inner table. The one who likes Fish doesn't face V.

Which of the following pet does F like?

Sparrow
Fish
Dog
Rabbit
None of these

Solution:

10 People: C, D, E, F, J, K, S, T, U and V.

Pet- Rabbit, Dog, Horse, Fish, Mouse, Pigeon, Turtle, Parrot, Cat and Sparrow.

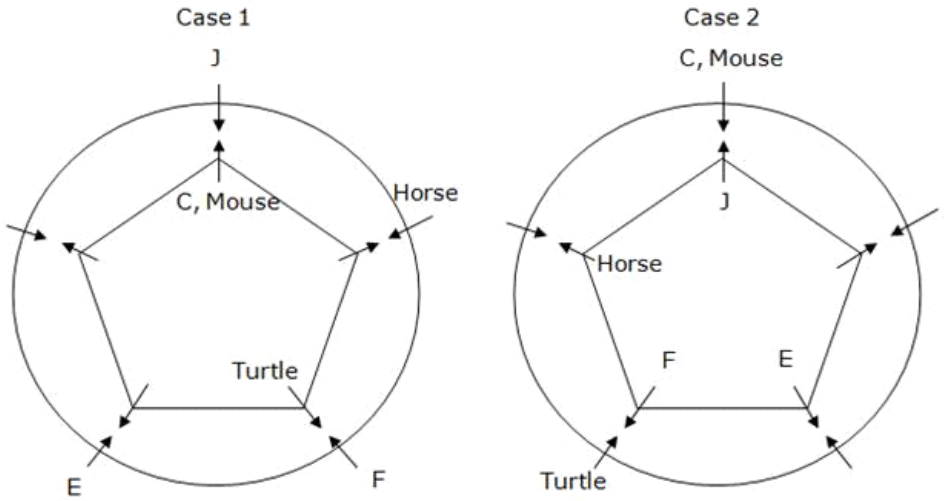
Steps:

1) C likes Mouse and faces J, who sits 2nd to the left of E.

Here, two possible cases i.e. case 1 and case 2.

2) The one likes Horse sits 2nd to the right of E.

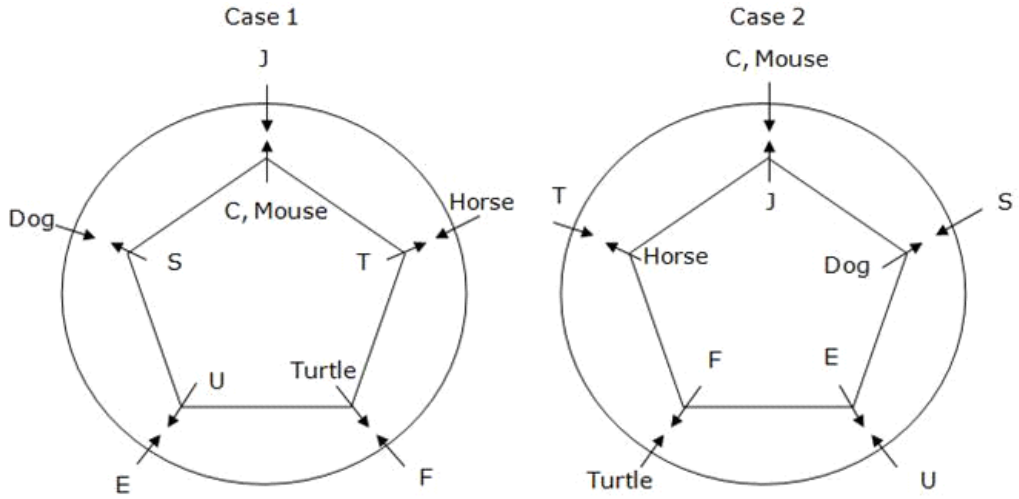
3) The one who likes Turtle faces F who sits 2nd to the left of J.



4) Both T and S are the neighbors of C.

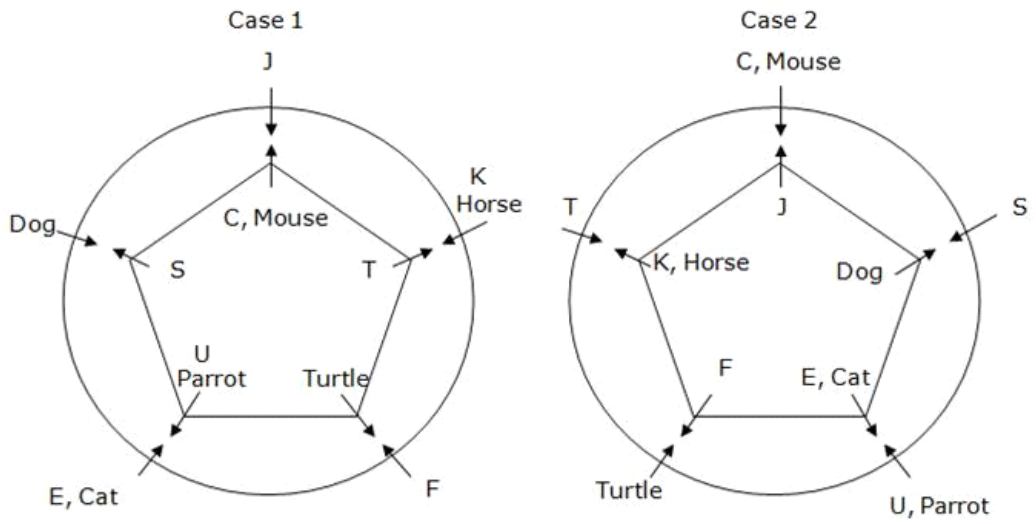
5) U sits just to the left of S.

6) The one who likes Dog faces S.



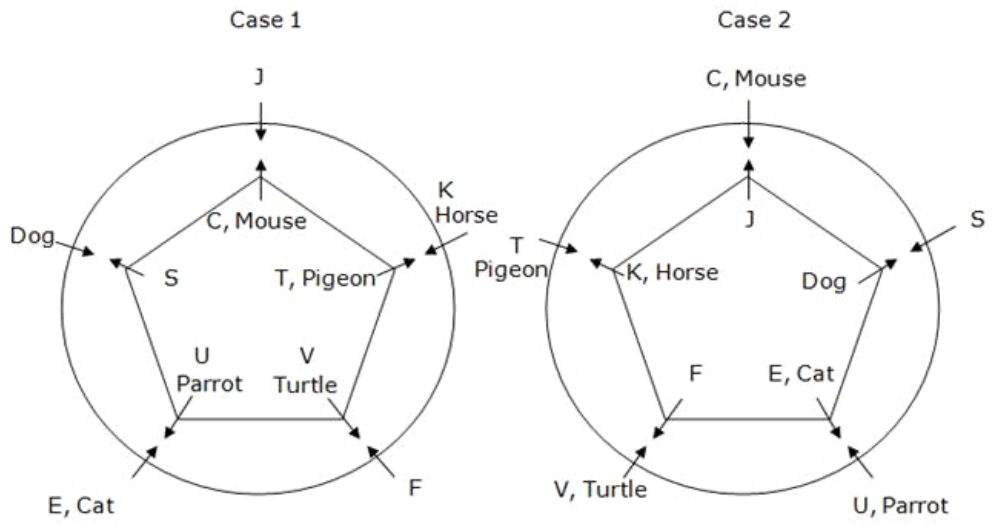
7) K sits 2nd to the left of the one who likes Dog.

8) The one who likes Cat sits 2nd to the left of K and faces the one who like Parrot.



9) V sits just to the right of the one who likes Pigeon.

10) J doesn't like Pigeon.

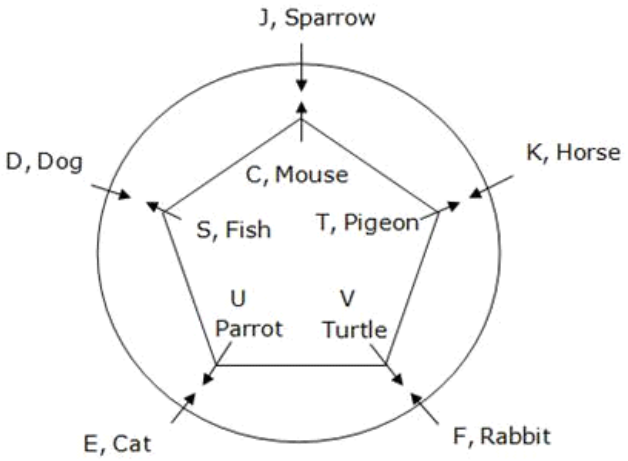


11) V sits in inner table.

Here, case 2 is eliminated.

12) The one who likes Sparrow faces the one who is just to the left of T.

13) The one who likes Fish doesn't face V.



Hence, F likes Rabbit.

2. How many people are sitting between T and the one who likes Parrot if counted starting from the right of T?

One
Two
Three
Zero
None of these

Solution:

10 People: C, D, E, F, J, K, S, T, U and V.

Pet- Rabbit, Dog, Horse, Fish, Mouse, Pigeon, Turtle, Parrot, Cat and Sparrow.

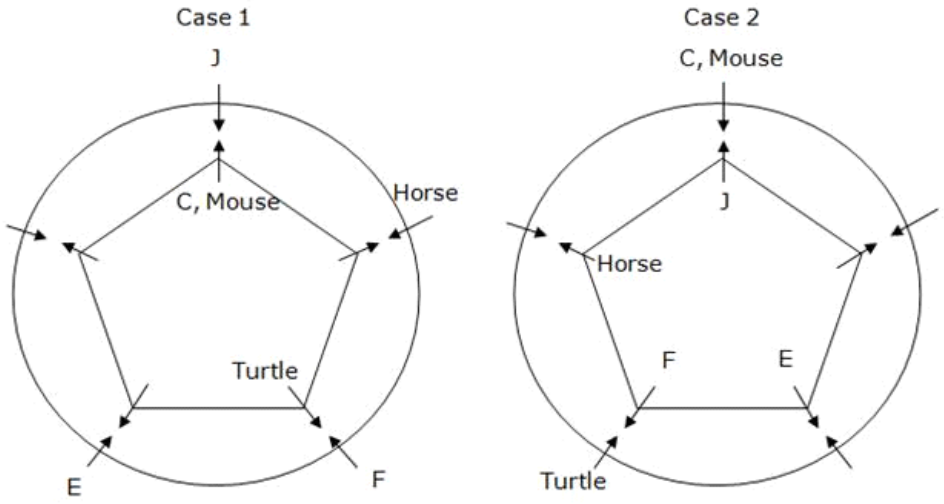
Steps:

1) C likes Mouse and faces J, who sits 2nd to the left of E.

Here, two possible cases i.e. case 1 and case 2.

2) The one likes Horse sits 2nd to the right of E.

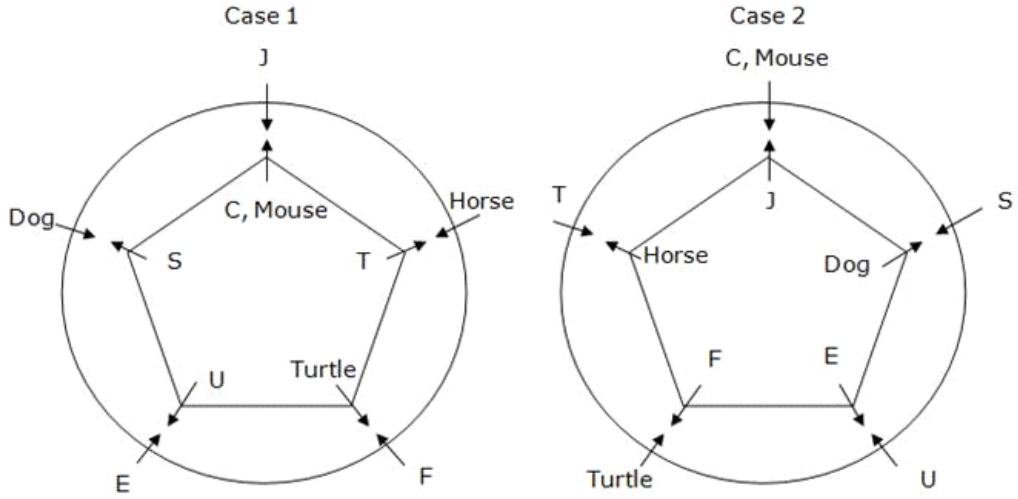
3) The one who likes Turtle faces F who sits 2nd to the left of J.



4) Both T and S are the neighbors of C.

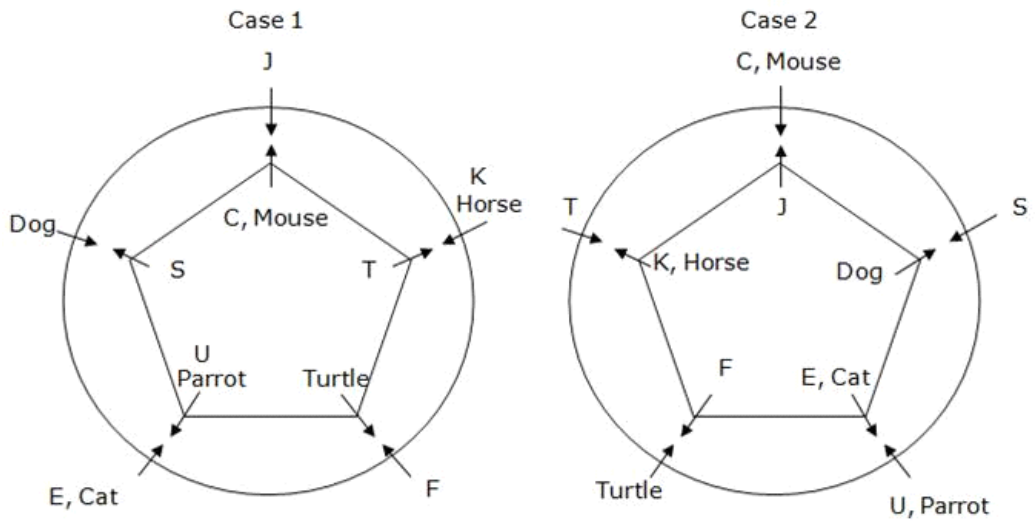
5) U sits just to the left of S.

6) The one who likes Dog faces S.



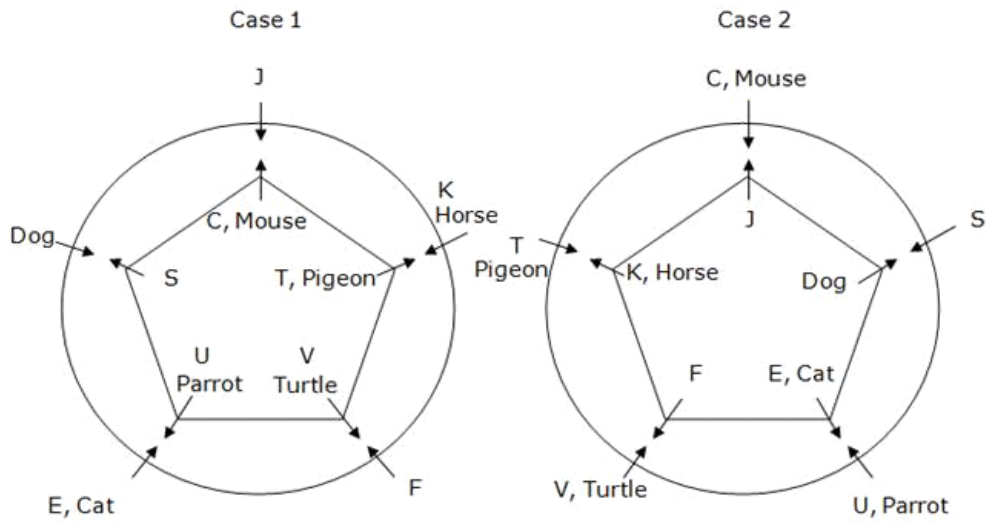
7) K sits 2nd to the left of the one who likes Dog.

8) The one who likes Cat sits 2nd to the left of K and faces the one who like Parrot.



9) V sits just to the right of the one who likes Pigeon.

10) J doesn't like Pigeon.

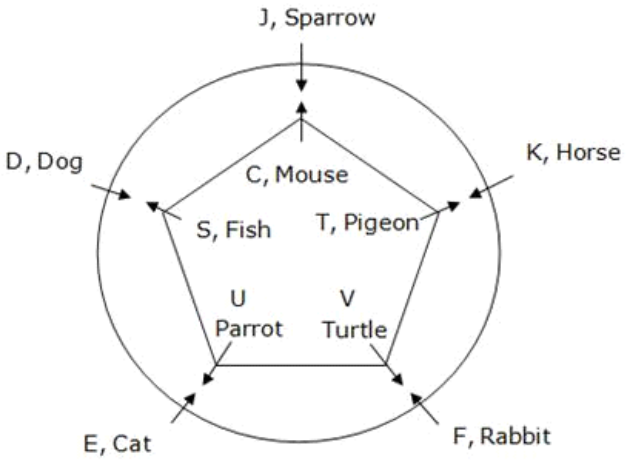


11) V sits in inner table.

Here, case 2 is eliminated.

12) The one who likes Sparrow faces the one who is just to the left of T.

13) The one who likes Fish doesn't face V.



Hence, one person sits between T and the one who like Parrot if counted starting from the right of T.

3. Who among the following sits just to the right of one who likes Cat?

The one who likes Dog
The one who likes Fish
The one who likes Rabbit
The one who likes Mouse
None of these

Solution:

10 People: C, D, E, F, J, K, S, T, U and V.

Pet- Rabbit, Dog, Horse, Fish, Mouse, Pigeon, Turtle, Parrot, Cat and Sparrow.

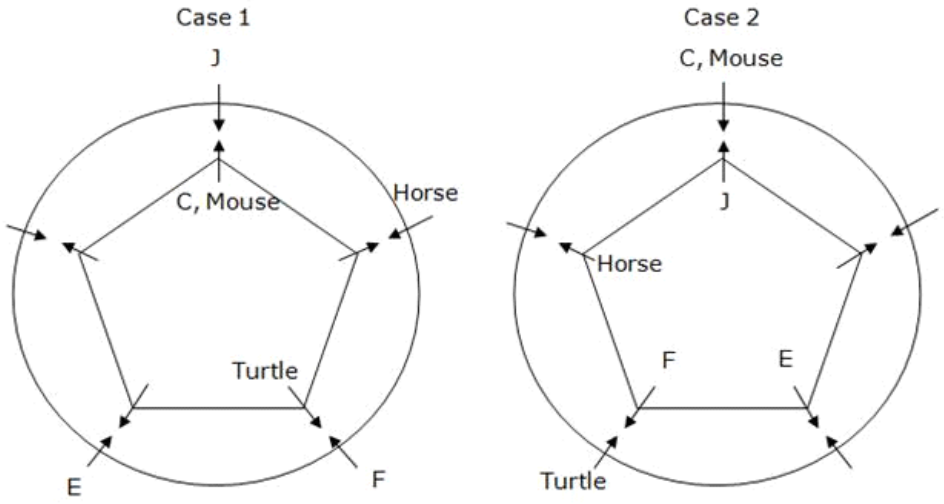
Steps:

1) C likes Mouse and faces J, who sits 2nd to the left of E.

Here, two possible cases i.e. case 1 and case 2.

2) The one likes Horse sits 2nd to the right of E.

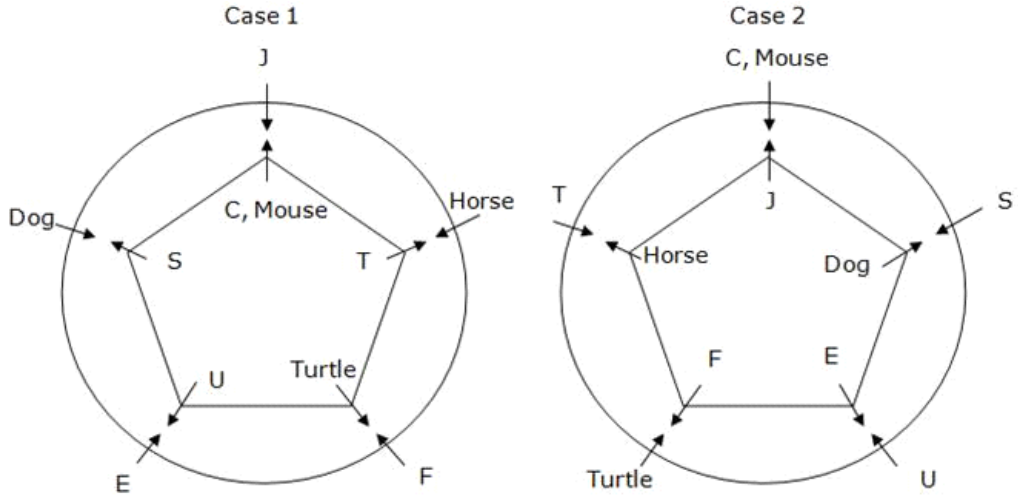
3) The one who likes Turtle faces F who sits 2nd to the left of J.



4) Both T and S are the neighbors of C.

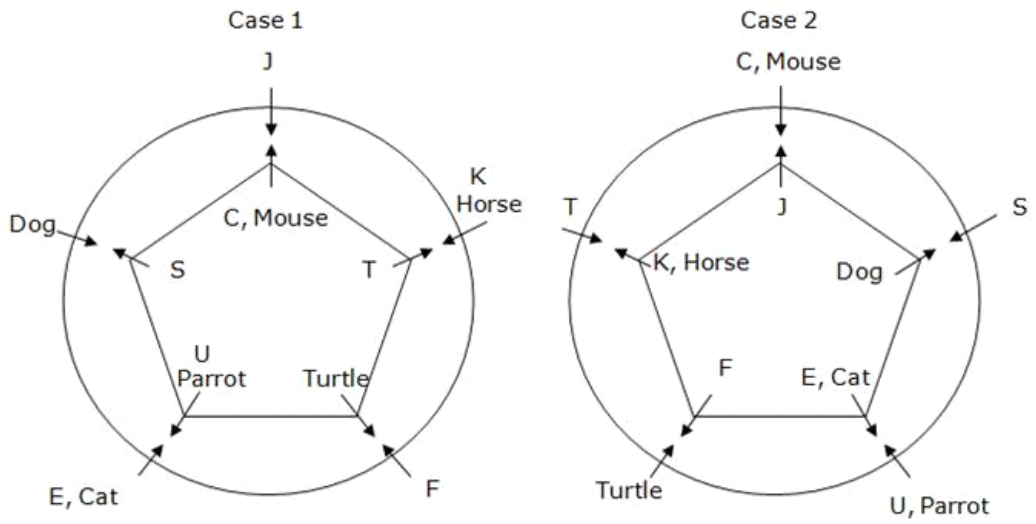
5) U sits just to the left of S.

6) The one who likes Dog faces S.



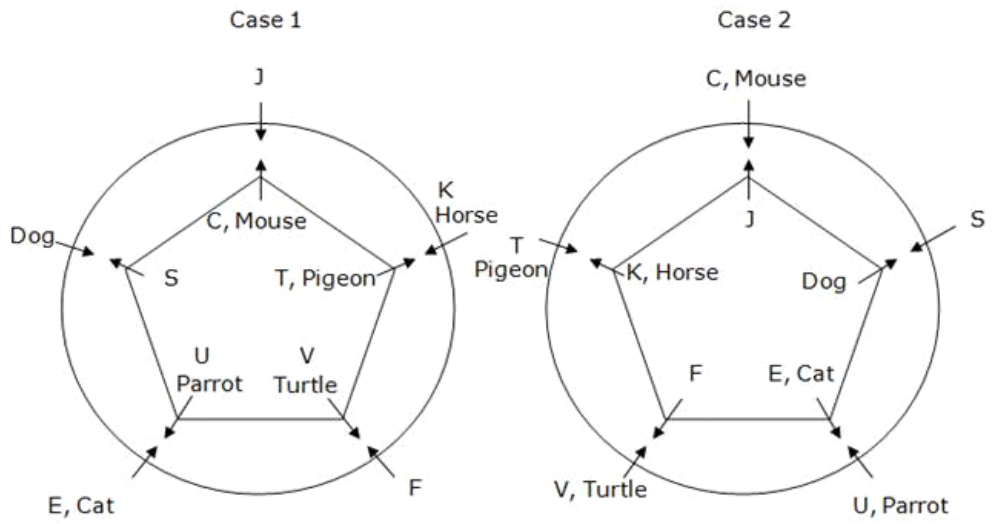
7) K sits 2nd to the left of the one who likes Dog.

8) The one who likes Cat sits 2nd to the left of K and faces the one who like Parrot.



9) V sits just to the right of the one who likes Pigeon.

10) J doesn't like Pigeon.

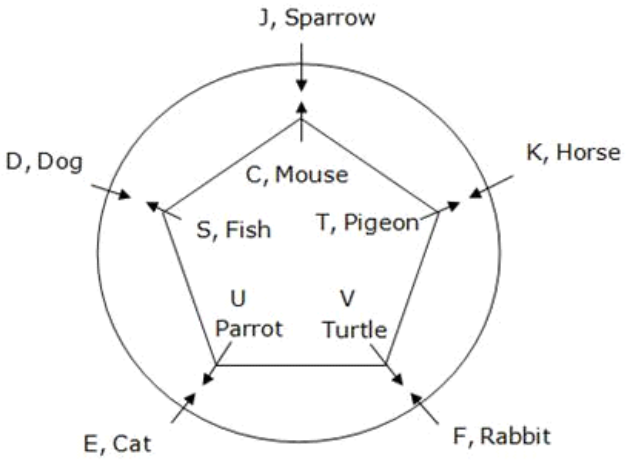


11) V sits in inner table.

Here, case 2 is eliminated.

12) The one who likes Sparrow faces the one who is just to the left of T.

13) The one who likes Fish doesn't face V.



Hence, the one who likes Rabbit sits just to the right of one who like Cat

4. Who among the following is a neighbor of D?

T
The one who likes Sparrow
V
The one who likes Mouse
None of these

Solution:

10 People: C, D, E, F, J, K, S, T, U and V.

Pet- Rabbit, Dog, Horse, Fish, Mouse, Pigeon, Turtle, Parrot, Cat and Sparrow.

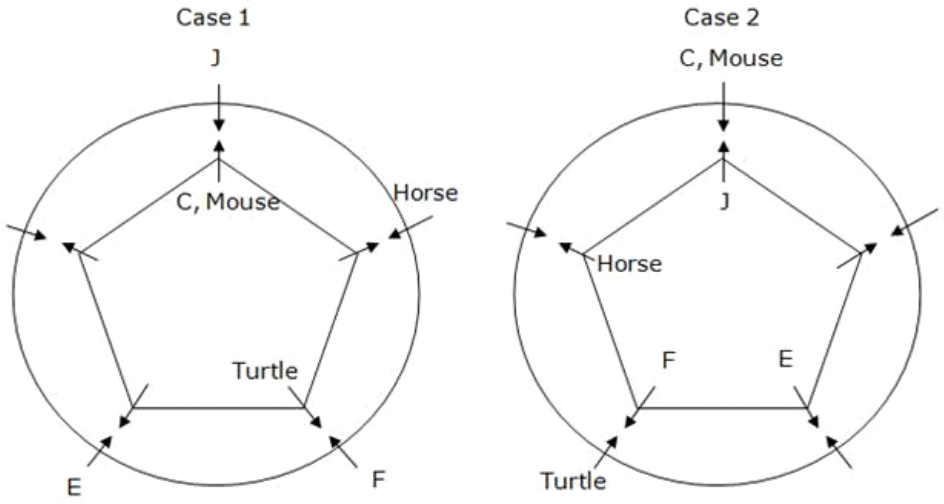
Steps:

1) C likes Mouse and faces J, who sits 2nd to the left of E.

Here, two possible cases i.e. case 1 and case 2.

2) The one likes Horse sits 2nd to the right of E.

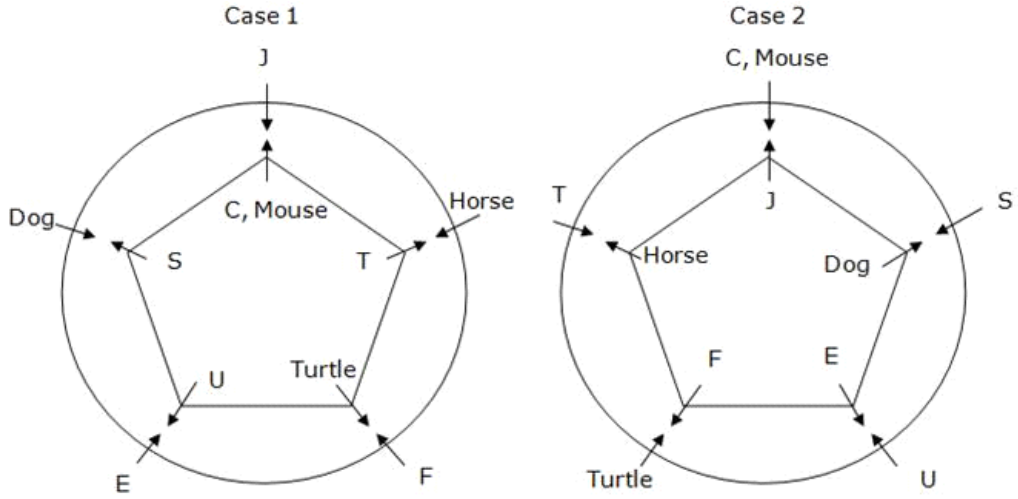
3) The one who likes Turtle faces F who sits 2nd to the left of J.



4) Both T and S are the neighbors of C.

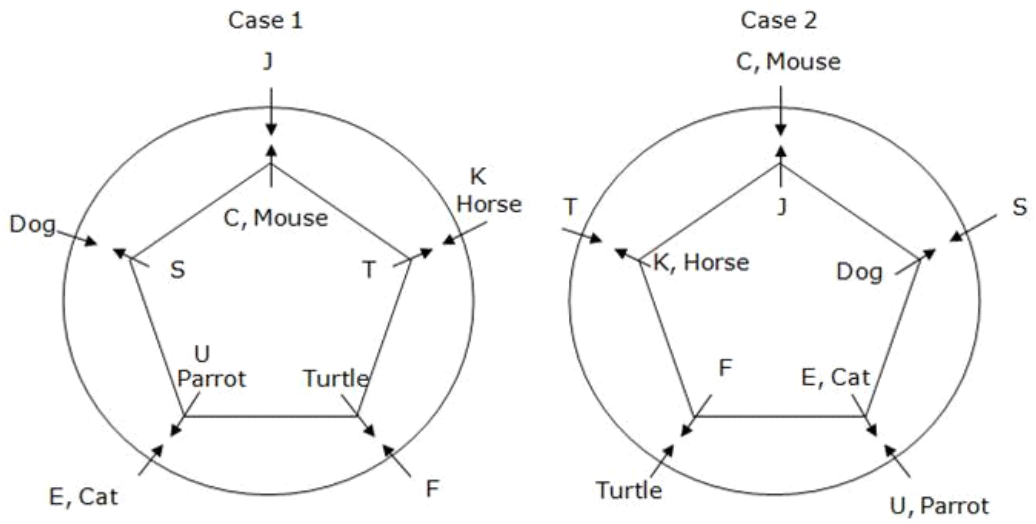
5) U sits just to the left of S.

6) The one who likes Dog faces S.



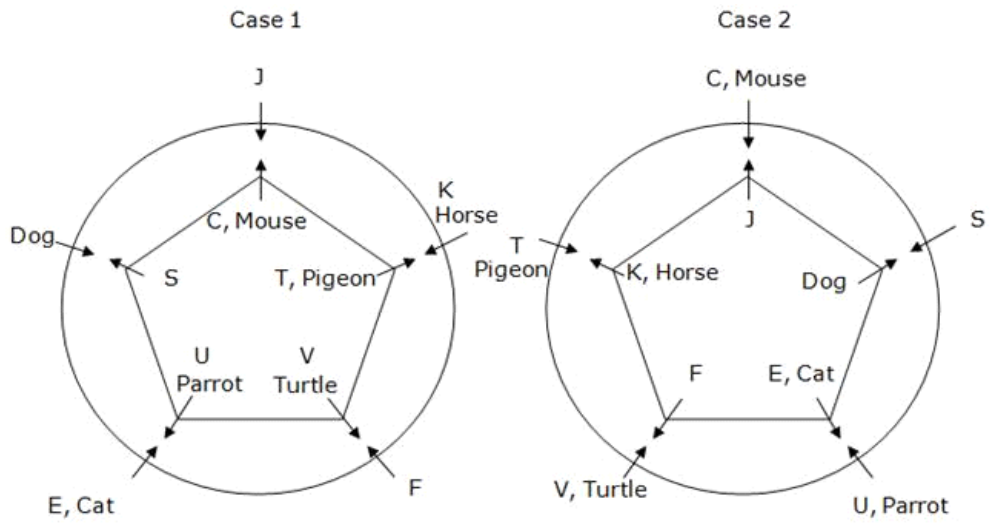
7) K sits 2nd to the left of the one who likes Dog.

8) The one who likes Cat sits 2nd to the left of K and faces the one who like Parrot.



9) V sits just to the right of the one who likes Pigeon.

10) J doesn't like Pigeon.

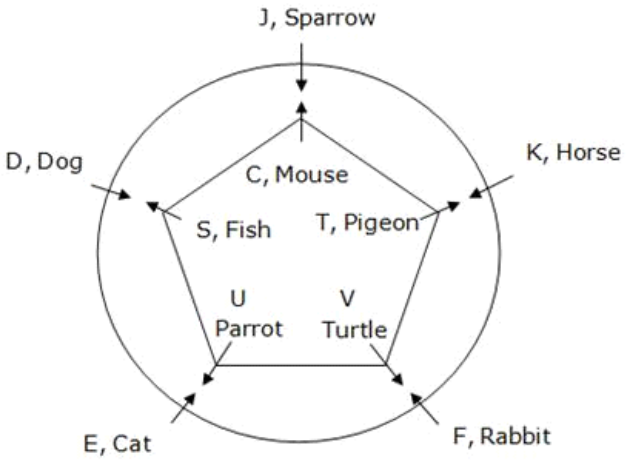


11) V sits in inner table.

Here, case 2 is eliminated.

12) The one who likes Sparrow faces the one who is just to the left of T.

13) The one who likes Fish doesn't face V.



Hence, the one who likes Sparrow is a neighbor of D.

5. Which of the following combinations is true?

K-Fish
V-Dog
U-Rabbit
D-Horse
None of these

Solution:

10 People: C, D, E, F, J, K, S, T, U and V.

Pet- Rabbit, Dog, Horse, Fish, Mouse, Pigeon, Turtle, Parrot, Cat and Sparrow.

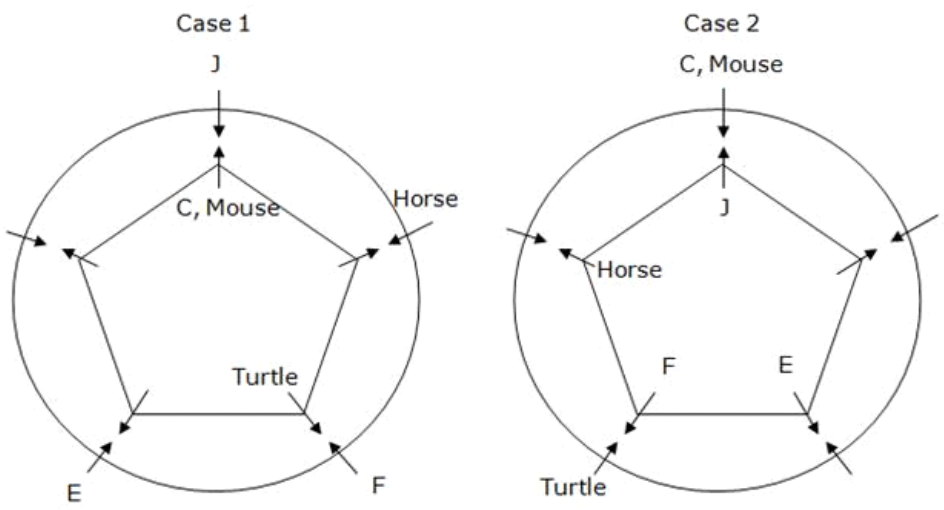
Steps:

1) C likes Mouse and faces J, who sits 2nd to the left of E.

Here, two possible cases i.e. case 1 and case 2.

2) The one likes Horse sits 2nd to the right of E.

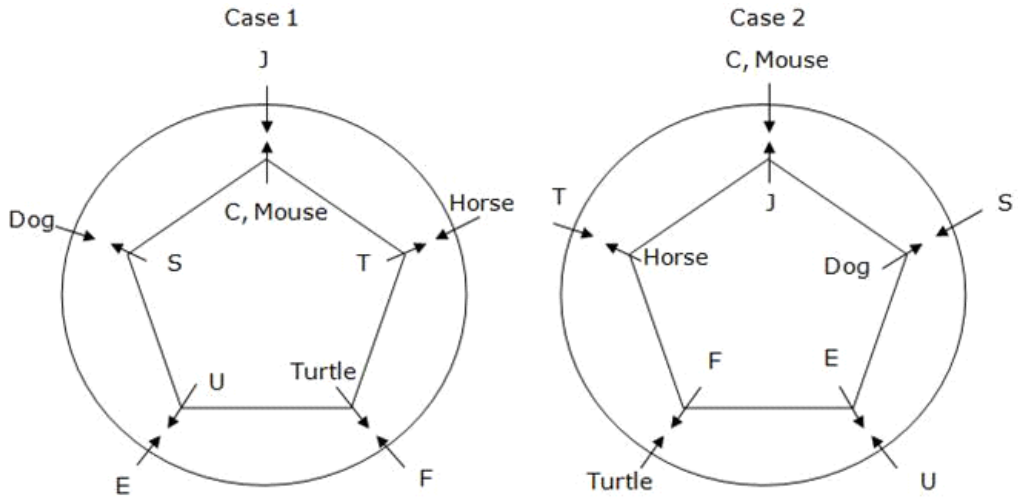
3) The one who likes Turtle faces F who sits 2nd to the left of J.



4) Both T and S are the neighbors of C.

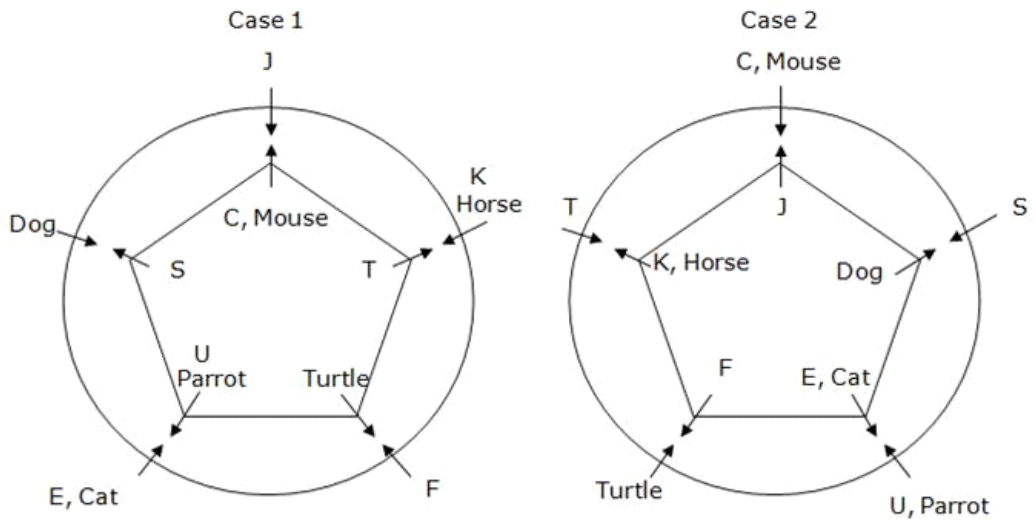
5) U sits just to the left of S.

6) The one who likes Dog faces S.



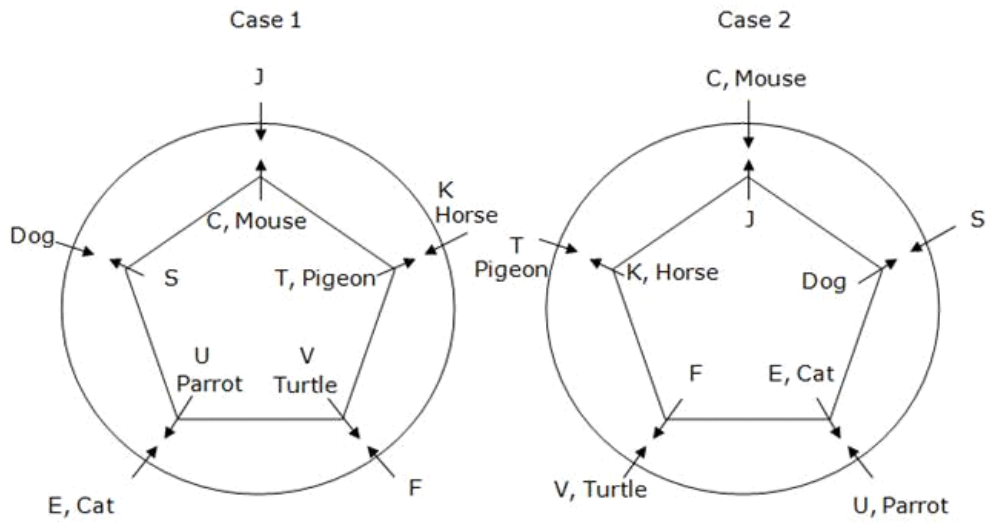
7) K sits 2nd to the left of the one who likes Dog.

8) The one who likes Cat sits 2nd to the left of K and faces the one who like Parrot.



9) V sits just to the right of the one who likes Pigeon.

10) J doesn't like Pigeon.

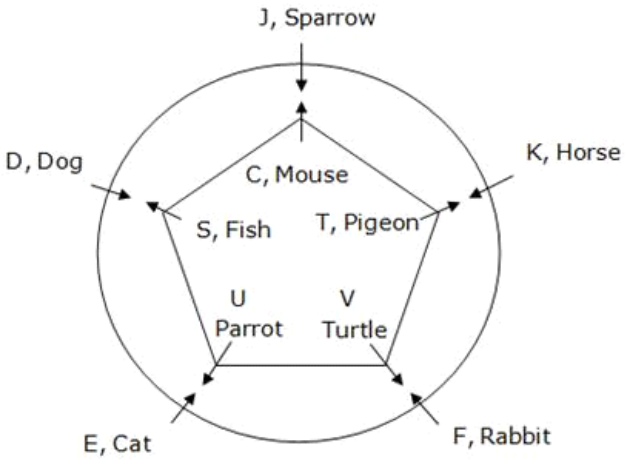


11) V sits in inner table.

Here, case 2 is eliminated.

12) The one who likes Sparrow faces the one who is just to the left of T.

13) The one who likes Fish doesn't face V.



Hence, none of these combinations is true.

(6-8) **Direction:** Study the following information carefully and answer the questions given below.

A*B (3) - A is 9m in the north of B
A^B (5) - A is 15m in the south of B
A!B (9) - A is 27m in the east of B
A#B (7) - A is 21m in the west of B

P*S (5), L!P (9),H^L (6),D#H (8),W#S (2),G#P (3)

6.What is the direction of G with respect to H?

North-West
South-West
North
South-East
None

Solution:

Given,

* means north

^ means south

! means east

means west

Statements:

P*S (5) → Point P is 15(=5×3)m north to point S

L!P (9) → Point L is 27(=9×3)m east to point P

H^L (6) → Point H is 18(=6×3)m south to point L

D#H (8) → Point D is 24(=8×3)m west to point H

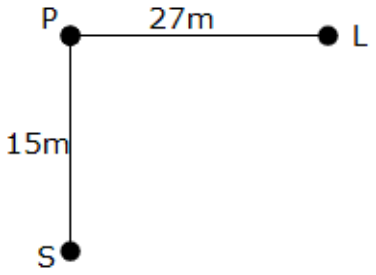
W#S (2) → Point W is 6(=2×3)m west to point S

G#P (3) → Point G is 9(=3×3)m west to point P

Steps:

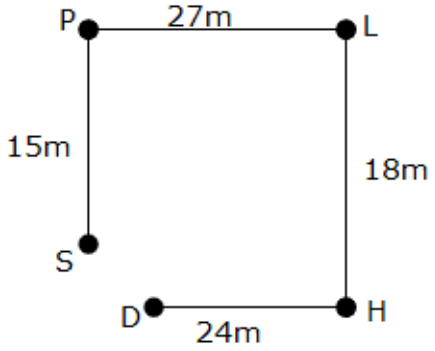
1) P*S (5) → Point P is 15m north to point S

2) L!P (9) → Point L is 27m east to point P



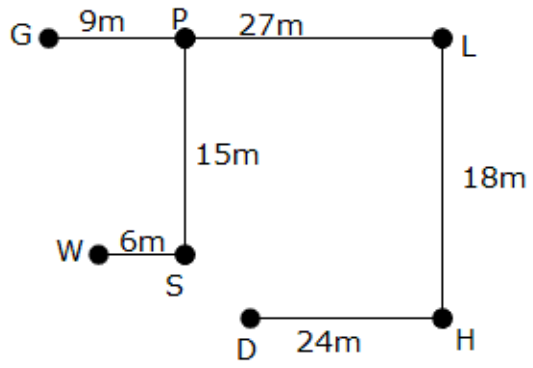
3) H^L (6) → Point H is 18m south to point L

4) D#H (8) → Point D is 24m west to point H



5) W#S (2) → Point W is 6m west to point S

6) G#P (3) → Point G is 9m west to point P



Clearly, G is in the north-west direction with respect to H.

Hence, North-West is the correct answer.

7. If a man wants to travel to point D from point G, which of the following will be the correct route?

G-H-L-D
G-P-L-H-D
G-W-P-L-D
None
G-S-L-D

Solution:

Given,

* means north

^ means south

! means east

means west

Statements:

P*S (5) → Point P is 15(=5×3)m north to point S

L!P (9) → Point L is 27(=9×3)m east to point P

H^L (6) → Point H is 18(=6×3)m south to point L

D#H (8) → Point D is 24(=8×3)m west to point H

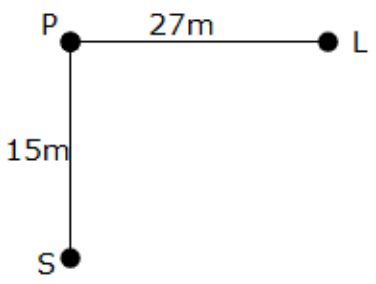
W#S (2) → Point W is 6(=2×3)m west to point S

G#P (3) → Point G is 9(=3×3)m west to point P

Steps:

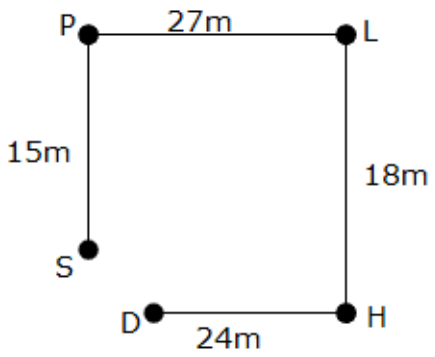
1) P*S (5) → Point P is 15(=5×3)m north to point S

2) L!P (9) → Point L is 27(=9×3)m east to point P



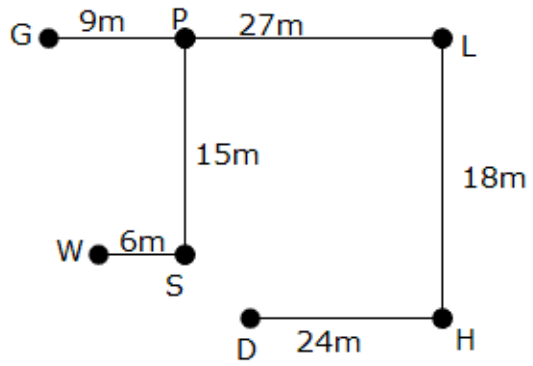
3) H^L (6) → Point H is 18(=6×3)m south to point L

4) D#H (8) → Point D is 24(=8×3)m west to point H



5) W#S (2) → Point W is 6(=2×3)m west to point S

6) G#P (3) → Point G is 9(=3×3)m west to point P



Therefore, route to reach D from G is G-P-L-H-D

Hence, G-P-L-H-D is the correct answer.

8. What is the distance between point G and point L?

54m
33m
55m
36m
64m

Solution:

Given,

* means north

^ means south

! means east

means west

Statements:

P*S (5) → Point P is 15(=5×3)m north to point S

L!P (9) → Point L is 27(=9×3)m east to point P

H^L (6) → Point H is 18(=6×3)m south to point L

D#H (8) → Point D is 24(=8×3)m west to point H

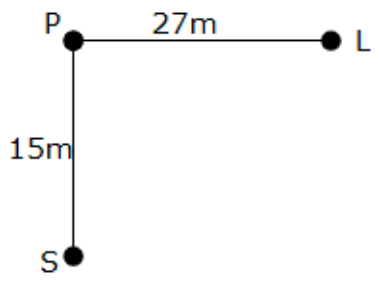
W#S (2) → Point W is 6(=2×3)m west to point S

G#P (3) → Point G is 9(=3×3)m west to point P

Steps:

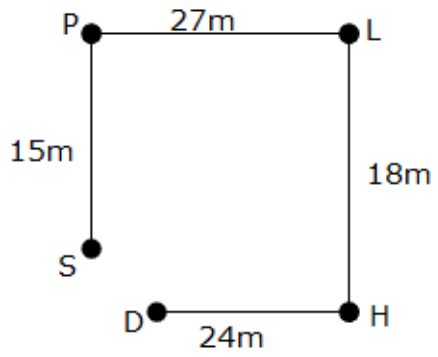
1) P*S (5) → Point P is 15(=5×3)m north to point S

2) L!P (9) → Point L is 27(=9×3)m east to point P



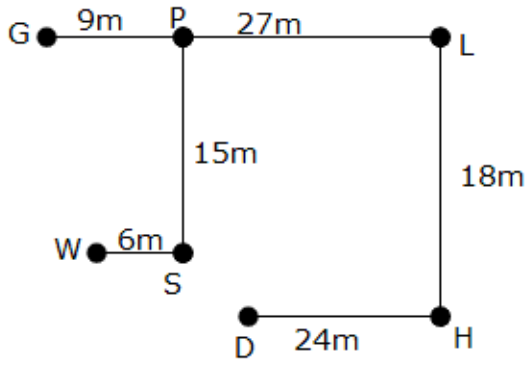
3) H^L (6) → Point H is 18(=6×3)m south to point L

4) D#H (8) → Point D is 24(=8×3)m west to point H



5) W#S (2) → Point W is 6(=2×3)m west to point S

6) G#P (3) → Point G is 9(=3×3)m west to point P



GL = GP+PL

GL = 9m+27m

GL = 36m

Hence, 36m is the correct answer.

(9-13) **Direction:** Read the following information carefully and Answer the questions given below.

Seven persons L, M, N, P, Q, R and S like were born on different days of the week i.e. Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday but not necessarily in the same order. Each of them has a different height.

Both M who was not born on Saturday and N are shorter than the one who was born on Tuesday. The one who was born on Monday is not the second tallest person. R is just shorter than the one who was born on Friday. L is taller than the one who was born on Tuesday but shorter than the one who was born on Monday. At least one person is shorter than Q. L was not born on Saturday. The one who was born on Wednesday and P are taller than the one who was born on Monday. S is not the second tallest person. Height of not more than one person lies between the height of the one who was born on Saturday and Q's height. The one who was born on Friday is not just shorter or just taller than the one who was born on Tuesday. Height of number of persons lie between S and L is one less than the height of number persons lie between L and the one who was born on Sunday.

Who among the following is the tallest person?

P
The one who was born on Wednesday.
S
Either the one who was born on Friday or P.
None of these

Solution:

1) Both M who was not born on Thursday and N are shorter than the one who was born on Tuesday.

Tuesday > M/N

2) L is taller than the one who was born on Tuesday but shorter than the one who was born on Monday.

Monday > L > Tuesday

3) The one who was born on Wednesday and P are taller than the one who was born on Monday.

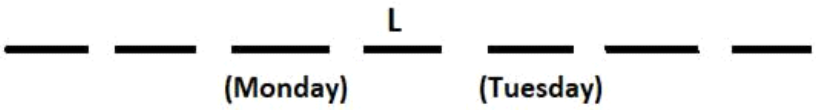
Wednesday / P > Monday

4) After combining (1), (2) and (3)

Wednesday / P > Monday > L > Tuesday > M/N

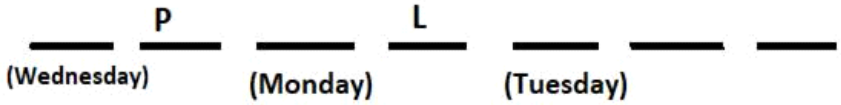
5) The one who was born on Monday is not the second tallest person.

Case

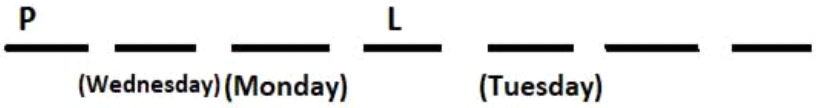


Now, there can be two possible places for P and the one who was born on Wednesday.

Case 1



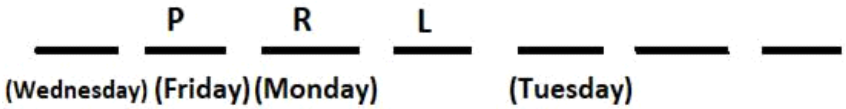
Case 2



6) R is just shorter than the one who was born on Friday.

7) The one who was born on Friday is not just shorter or just taller than the one who was born on Tuesday.

Case 1



Case 2

P	R		L			
(Friday)	(Wednesday)	(Monday)		(Tuesday)		

8) L was not born on Saturday.

9) At least one person is shorter than Q.

10) Height of not more than one person lies between the height of the one who was born on Saturday and Q's height.

11) The one who was born on Saturday is not the second shortest person.

Case 1

	P	R	L	Q		
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R		L	Q		
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

12) M was not born on Saturday.

Case 1

S	P	R	L	Q	M	N
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

13) Height of number of persons lie between S and L is one less than the height of number persons lie between L and the one who was born on Sunday.

Case 1 gets eliminated here as there is no possible place left for the one who was born on Sunday.

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)	(Thursday)	(Tuesday)	(Sunday)	(Saturday)

Clearly, P is the tallest person.

10. How many persons' height lies between the one who was born on Monday and Q?

Two
None
One
More than two
None of these

Solution:

1) Both M who was not born on Thursday and N are shorter than the one who was born on Tuesday.

Tuesday > M/N

2) L is taller than the one who was born on Tuesday but shorter than the one who was born on Monday.

Monday > L > Tuesday

3) The one who was born on Wednesday and P are taller than the one who was born on Monday.

Wednesday / P > Monday

4) After combining (1), (2) and (3)

Wednesday / P > Monday > L > Tuesday > M/N

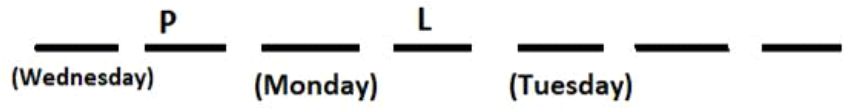
5) The one who was born on Monday is not the second tallest person.

Case

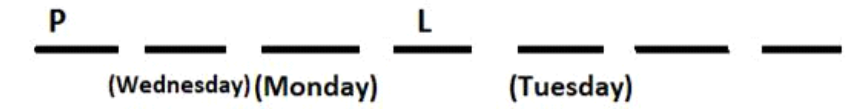
			L			
		(Monday)		(Tuesday)		

Now, there can be two possible places for P and the one who was born on Wednesday.

Case 1



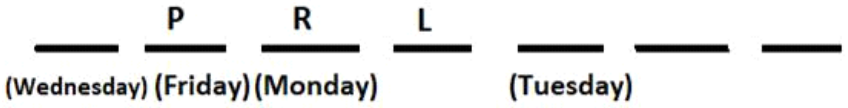
Case 2



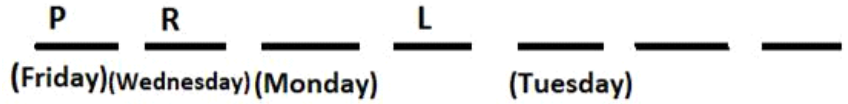
6) R is just shorter than the one who was born on Friday.

7) The one who was born on Friday is not just shorter or just taller than the one who was born on Tuesday.

Case 1



Case 2



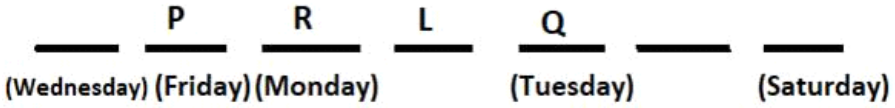
8) L was not born on Saturday.

9) At least one person is shorter than Q.

10) Height of not more than one person lies between the height of the one who was born on Saturday and Q's height.

11) The one who was born on Saturday is not the second shortest person.

Case 1



Case 2

P	R		L	Q		
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

12) M was not born on Saturday.

Case 1

S	P	R	L	Q	M	N
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

13) Height of number of persons lie between S and L is one less than the height of number persons lie between L and the one who was born on Sunday.

Case 1 gets eliminated here as there is no possible place left for the one who was born on Sunday.

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)	(Thursday)	(Tuesday)	(Sunday)	(Saturday)

Clearly, height of one person lies between the one who was born on Monday and Q.

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

1) R who was born on Wednesday is just taller than P.

2) M was born on Sunday and is taller than N.

3) S who was born on Monday is just shorter than R.

Only (1)
Only (3)
Both (1) and (2)

Both (2) and (3)
All (1), (2) and (3)

Solution:

1) Both M who was not born on Thursday and N are shorter than the one who was born on Tuesday.

Tuesday > M/N

2) L is taller than the one who was born on Tuesday but shorter than the one who was born on Monday.

Monday > L > Tuesday

3) The one who was born on Wednesday and P are taller than the one who was born on Monday.

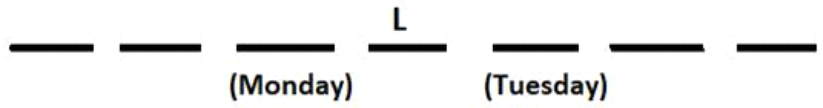
Wednesday / P > Monday

4) After combining (1), (2) and (3)

Wednesday / P > Monday > L > Tuesday > M/N

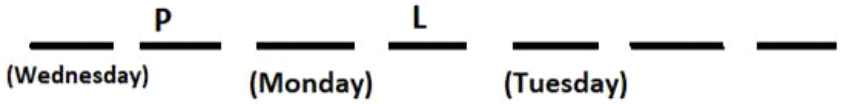
5) The one who was born on Monday is not the second tallest person.

Case

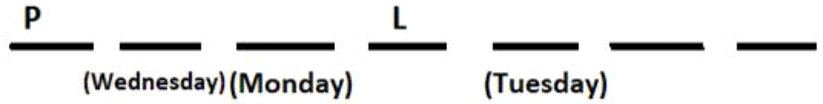


Now, there can be two possible places for P and the one who was born on Wednesday.

Case 1



Case 2



6) R is just shorter than the one who was born on Friday.

7) The one who was born on Friday is not just shorter or just taller than the one who was born on Tuesday.

Case 1

	P	R	L			
(Wednesday)	(Friday)	(Monday)		(Tuesday)		

Case 2

P	R		L			
(Friday)	(Wednesday)	(Monday)		(Tuesday)		

8) L was not born on Saturday.

9) At least one person is shorter than Q.

10) Height of not more than one person lies between the height of the one who was born on Saturday and Q's height.

11) The one who was born on Saturday is not the second shortest person.

Case 1

	P	R	L	Q		
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R		L	Q		
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

---

12) M was not born on Saturday.

Case 1

S	P	R	L	Q	M	N
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

13) Height of number of persons lie between S and L is one less than the height of number persons lie between L and the one who was born on Sunday.

Case 1 gets eliminated here as there is no possible place left for the one who was born on Sunday.

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)	(Thursday)	(Tuesday)	(Sunday)	(Saturday)

Clearly, M was born on Sunday and is taller than N and S who was born on Monday is just shorter than R are true statements among the given statements with respect to the given arrangement.

12. Who among the following is shorter than the one who was born on Thursday?

The one who was born on Monday.
The one who was born on Friday.
The one who was born on Sunday.
R
None of these

Solution:

1) Both M who was not born on Thursday and N are shorter than the one who was born on Tuesday.

Tuesday > M/N

2) L is taller than the one who was born on Tuesday but shorter than the one who was born on Monday.

Monday > L > Tuesday

3) The one who was born on Wednesday and P are taller than the one who was born on Monday.

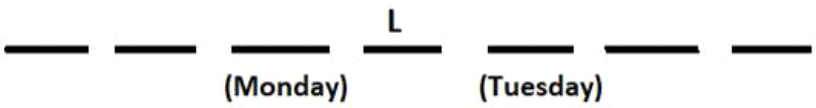
Wednesday / P > Monday

4) After combining (1), (2) and (3)

Wednesday / P > Monday > L > Tuesday > M/N

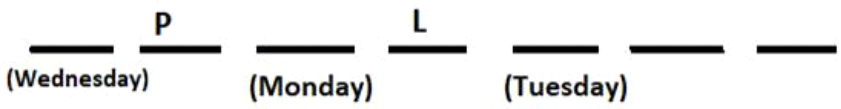
5) The one who was born on Monday is not the second tallest person.

Case

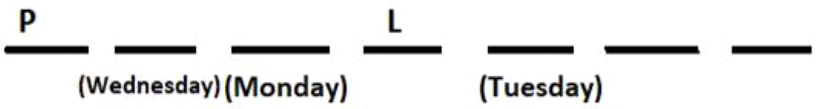


Now, there can be two possible places for P and the one who was born on Wednesday.

Case 1



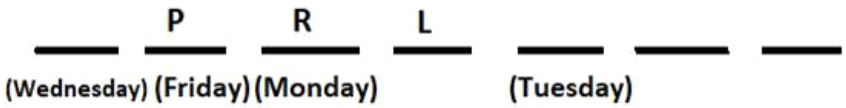
Case 2



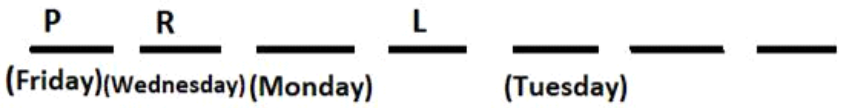
6) R is just shorter than the one who was born on Friday.

7) The one who was born on Friday is not just shorter or just taller than the one who was born on Tuesday.

Case 1



Case 2



8) L was not born on Saturday.

9) At least one person is shorter than Q.

10) Height of not more than one person lies between the height of the one who was born on Saturday and Q's height.

11) The one who was born on Saturday is not the second shortest person.

Case 1

	P	R	L	Q		
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R		L	Q		
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

12) M was not born on Saturday.

Case 1

S	P	R	L	Q	M	N
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

---

13) Height of number of persons lie between S and L is one less than the height of number persons lie between L and the one who was born on Sunday.

Case 1 gets eliminated here as there is no possible place left for the one who was born on Sunday.

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)	(Thursday)	(Tuesday)	(Sunday)	(Saturday)

Clearly, the one who was born on Sunday is shorter than the one who was born on Thursday.

13. Who among the following was born on Saturday?

M
N
Either M or N
S
None of these

Solution:

1) Both M who was not born on Thursday and N are shorter than the one who was born on Tuesday.

Tuesday > M/N

2) L is taller than the one who was born on Tuesday but shorter than the one who was born on Monday.

Monday > L > Tuesday

3) The one who was born on Wednesday and P are taller than the one who was born on Monday.

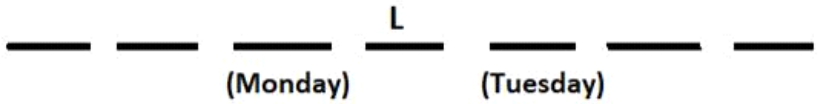
Wednesday / P > Monday

4) After combining (1), (2) and (3)

Wednesday / P > Monday > L > Tuesday > M/N

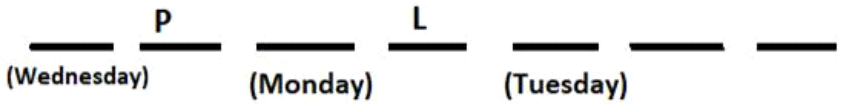
5) The one who was born on Monday is not the second tallest person.

Case



Now, there can be two possible places for P and the one who was born on Wednesday.

Case 1



Case 2

P			L			
	(Wednesday)	(Monday)		(Tuesday)		

6) R is just shorter than the one who was born on Friday.

7) The one who was born on Friday is not just shorter or just taller than the one who was born on Tuesday.

Case 1

	P	R	L			
(Wednesday)	(Friday)	(Monday)		(Tuesday)		

Case 2

P	R		L			
(Friday)	(Wednesday)	(Monday)		(Tuesday)		

8) L was not born on Saturday.

9) At least one person is shorter than Q.

10) Height of not more than one person lies between the height of the one who was born on Saturday and Q's height.

11) The one who was born on Saturday is not the second shortest person.

Case 1

	P	R	L	Q		
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R		L	Q		
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

---

12) M was not born on Saturday.

Case 1

S	P	R	L	Q	M	N
(Wednesday)	(Friday)	(Monday)		(Tuesday)		(Saturday)

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)		(Tuesday)		(Saturday)

13) Height of number of persons lie between S and L is one less than the height of number persons lie between L and the one who was born on Sunday.

Case 1 gets eliminated here as there is no possible place left for the one who was born on Sunday.

Case 2

P	R	S	L	Q	M	N
(Friday)	(Wednesday)	(Monday)	(Thursday)	(Tuesday)	(Sunday)	(Saturday)

Clearly, N was born on Saturday.

(14-18) **Direction:** Study the following information carefully and answer the questions given below.

There are eight persons i.e. P, Q, R, S, T, U, V and W working in eight different companies i.e. Wipro, Accenture, HCL, Infosys, Dell, TCS, HP and Lenovo. They all are working in different departments i.e. HR, IT, Finance, Content, Management, Marketing, Sales and Advertising department. They all have different years of experience. Minimum experience is 2 years and maximum experience is 11 years. No two persons have same years of experience. All the information is not necessarily in the same order.

P doesn't has 7 years of experience. Q is an employee of HCL and works in Finance department. An employee of Accenture works in IT department. T has more experience than S who has 9 years of experience. Difference between the

experience of S and R is 2 years. V is an employee of Infosys but doesn't work in HR department. P works in Advertising department. W is an employee of HP and has 3 years less experience than R. The one who has least experience is neither an employee of Accenture nor works in HR department. The one who is an employee of HP doesn't work in HR department. The one who is an employee of Infosys has 3 years less experience than W. The experience of the one works in Sales department is divisible by 4. The one who works in HR department is an employee of TCS. P has less experience than S but more than the one who is an employee of Infosys. The one who works in HR department doesn't has maximum years of experience. The experience of the one who is an employee of Dell is a multiple of 5. U has minimum experience that is 7 years less than S. An employee of Wipro works in marketing department. Q has less experience than the one who works in IT department but more than P. T works in Content Department.

14.Who amongst the following works in HR department?

The one who is an employee of Lenovo
The one whose experience is 2 years more than Q
The one who is an employee of Wipro
The one whose experience is 7 years
None of these

Solution:

1) Q is an employee of HCL and works in Finance department.

2) T has more experience than S who has 9 years of experience.

3) U has minimum experience that is 7 years less than S.

Persons	Companies	Departments	Experience
P			
Q	HCL	Finance	
R			
S			9 yrs.
T			
U			2 yrs.
V			
W			

4) T works in Content Department.

5) Difference between the experience of S and R is 2 years. (R has either experience of 7 years or 11 years)

Here, we have two possible cases i.e. Case 1 and Case 2:

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P						
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V						
W						

6) V is an employee of Infosys but doesn't work in HR department.

7) P works in Advertising department.

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W						

8) W is an employee of HP and has 3 years less experience than R.

9) An employee of Accenture works in IT department.

10) The one who has least experience is neither an employee of Accenture nor works in HR department.

Now, here in Case 1 and 2; Accenture and IT can come at 2 places i.e. R and S only as U has minimum experience in both the cases.

Here, we have two more possible cases i.e. Case 1a and Case 2a:

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.			7 yrs.
S			9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

	Case 1a			Case 2a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.	Accenture	IT	7 yrs.
S	Accenture	IT	9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

11) The one who is an employee of HP doesn't work in HR department. (In case 1, HR dept. is of S and In case 2, it is of V as per 11 and 10)

12) The one who is an employee of Infosys has 3 years less experience than W.

Here, Case 2 and Case 2a get eliminated and we will further proceed with Case 1 and Case 1a:

	Case 1			Case 1a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.		HR	11 yrs.
S		HR	9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys		5 yrs.	Infosys		5 yrs.
W	HP		8 yrs.	HP		8 yrs.

13) The experience of the one works in Sales department is divisible by 4. (It will come at W only)

14) The one who works in HR department is an employee of TCS.

15) P has less experience than S but more than the one who is an employee of Infosys.

16) P doesn't have 7 years of experience. (In case 1: P has less than 9 and more than 5 years of experience i.e. 6/7/8. Now, we are only left with 6. In case 2: there cannot be any value which satisfies all the conditions)

17) The one who works in HR department doesn't has maximum years of experience. (not required statement)

Here, Case 1a gets eliminated and we will further proceed with Case 1:

	Case 1		
Persons	**Companies**	**Departments**	**Experience**
P		Advertising	6 yrs.
Q	HCL	Finance	
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T		Content	
U			2 yrs.
V	Infosys		5 yrs.
W	HP	Sales	8 yrs.

18) The experience of the one who is an employee of Dell is a multiple of 5. (Dell and 10 can come at T only)

19) An employee of Wipro works in marketing department. (U is the only option)

20) Q has less experience than the one who works in IT department but more than P. (Q has less experience than 11 and more than 6. Now, the only option is 7)

P works in Lenovo company and V works in Management department.

We have the final arrangement:

Persons	Companies	Departments	Experience
P	Lenovo	Advertising	6 yrs.
Q	HCL	Finance	7 yrs.
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T	Dell	Content	10 yrs.
U	Wipro	Marketing	2 yrs.
V	Infosys	Management	5 yrs.
W	HP	Sales	8 yrs.

The correct answer is option b.

Clearly, the one whose experience is 2 years more than Q works in HR department.

15. What is product of the experience of the one who works in Marketing department and the one who is an employee of Accenture?

72
40
30
22
12

Solution:

1) Q is an employee of HCL and works in Finance department.

2) T has more experience than S who has 9 years of experience.

3) U has minimum experience that is 7 years less than S.

Persons	Companies	Departments	Experience
P			
Q	HCL	Finance	
R			
S			9 yrs.
T			
U			2 yrs.
V			
W			

4) T works in Content Department.

5) Difference between the experience of S and R is 2 years. (R has either experience of 7 years or 11 years)

Here, we have two possible cases i.e. Case 1 and Case 2:

	Case 1			Case 2		
Persons	Companies	Departments	Experience	Companies	Departments	Experience
P						
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V						
W						

6) V is an employee of Infosys but doesn't work in HR department.

7) P works in Advertising department.

	Case 1			Case 2		
Persons	Companies	Departments	Experience	Companies	Departments	Experience
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W						

8) W is an employee of HP and has 3 years less experience than R.

9) An employee of Accenture works in IT department.

10) The one who has least experience is neither an employee of Accenture nor works in HR department.

Now, here in Case 1 and 2; Accenture and IT can come at 2 places i.e. R and S only as U has minimum experience in both the cases.

Here, we have two more possible cases i.e. Case 1a and Case 2a:

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.			7 yrs.
S			9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

	Case 1a			Case 2a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.	Accenture	IT	7 yrs.
S	Accenture	IT	9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

11) The one who is an employee of HP doesn't work in HR department. (In case 1, HR dept. is of S and In case 2, it is of V as per 11 and 10)

12) The one who is an employee of Infosys has 3 years less experience than W.

Here, Case 2 and Case 2a get eliminated and we will further proceed with Case 1 and Case 1a:

	Case 1			Case 1a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.		HR	11 yrs.
S		HR	9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys		5 yrs.	Infosys		5 yrs.
W	HP		8 yrs.	HP		8 yrs.

13) The experience of the one works in Sales department is divisible by 4. (It will come at W only)

14) The one who works in HR department is an employee of TCS.

15) P has less experience than S but more than the one who is an employee of Infosys.

16) P doesn't have 7 years of experience. (In case 1: P has less than 9 and more than 5 years of experience i.e. 6/7/8. Now, we are only left with 6. In case 2: there cannot be any value which satisfies all the conditions)

17) The one who works in HR department doesn't has maximum years of experience. (not required statement)

Here, Case 1a gets eliminated and we will further proceed with Case 1:

	Case 1		
Persons	**Companies**	**Departments**	**Experience**
P		Advertising	6 yrs.
Q	HCL	Finance	
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T		Content	
U			2 yrs.
V	Infosys		5 yrs.
W	HP	Sales	8 yrs.

18) The experience of the one who is an employee of Dell is a multiple of 5. (Dell and 10 can come at T only)

19) An employee of Wipro works in marketing department. (U is the only option)

20) Q has less experience than the one who works in IT department but more than P. (Q has less experience than 11 and more than 6. Now, the only option is 7)

P works in Lenovo company and V works in Management department.

We have the final arrangement:

Persons	Companies	Departments	Experience
P	Lenovo	Advertising	6 yrs.
Q	HCL	Finance	7 yrs.
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T	Dell	Content	10 yrs.
U	Wipro	Marketing	2 yrs.
V	Infosys	Management	5 yrs.
W	HP	Sales	8 yrs.

Clearly, 22 is the product of the experience of the one who works in Marketing department (2) and the one who is an employee of Accenture (11).

The correct answer is option d.

16. What is the experience of the one who works in Management department?

One year less than the one who is an employee of HCL

Three years more than the one who works in Sales department
One year more than the one who is an employee of Dell
Two years less than the one who works in Finance department
None of these

Solution:

1) Q is an employee of HCL and works in Finance department.

2) T has more experience than S who has 9 years of experience.

3) U has minimum experience that is 7 years less than S.

Persons	Companies	Departments	Experience
P			
Q	HCL	Finance	
R			
S			9 yrs.
T			
U			2 yrs.
V			
W			

4) T works in Content Department.

5) Difference between the experience of S and R is 2 years. (R has either experience of 7 years or 11 years)

Here, we have two possible cases i.e. Case 1 and Case 2:

	Case 1			Case 2		
Persons	Companies	Departments	Experience	Companies	Departments	Experience
P						
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V						
W						

6) V is an employee of Infosys but doesn’t work in HR department.

7) P works in Advertising department.

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W						

8) W is an employee of HP and has 3 years less experience than R.

9) An employee of Accenture works in IT department.

10) The one who has least experience is neither an employee of Accenture nor works in HR department.

Now, here in Case 1 and 2; Accenture and IT can come at 2 places i.e. R and S only as U has minimum experience in both the cases.

Here, we have two more possible cases i.e. Case 1a and Case 2a:

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.			7 yrs.
S			9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

	Case 1a			Case 2a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.	Accenture	IT	7 yrs.
S	Accenture	IT	9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

11) The one who is an employee of HP doesn't work in HR department. (In case 1, HR dept. is of S and In case 2, it is of V as per 11 and 10)

12) The one who is an employee of Infosys has 3 years less experience than W.

Here, Case 2 and Case 2a get eliminated and we will further proceed with Case 1 and Case 1a:

	Case 1			Case 1a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.		HR	11 yrs.
S		HR	9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys		5 yrs.	Infosys		5 yrs.
W	HP		8 yrs.	HP		8 yrs.

13) The experience of the one works in Sales department is divisible by 4. (It will come at W only)

14) The one who works in HR department is an employee of TCS.

15) P has less experience than S but more than the one who is an employee of Infosys.

16) P doesn't have 7 years of experience. (In case 1: P has less than 9 and more than 5 years of experience i.e. 6/7/8. Now, we are only left with 6. In case 2: there cannot be any value which satisfies all the conditions)

17) The one who works in HR department doesn't has maximum years of experience. (not required statement)

Here, Case 1a gets eliminated and we will further proceed with Case 1:

	Case 1		
Persons	**Companies**	**Departments**	**Experience**
P		Advertising	6 yrs.
Q	HCL	Finance	
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T		Content	
U			2 yrs.
V	Infosys		5 yrs.
W	HP	Sales	8 yrs.

18) The experience of the one who is an employee of Dell is a multiple of 5. (Dell and 10 can come at T only)

19) An employee of Wipro works in marketing department. (U is the only option)

20) Q has less experience than the one who works in IT department but more than P. (Q has less experience than 11 and more than 6. Now, the only option is 7)

P works in Lenovo company and V works in Management department.

We have the final arrangement:

Persons	Companies	Departments	Experience
P	Lenovo	Advertising	6 yrs.
Q	HCL	Finance	7 yrs.
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T	Dell	Content	10 yrs.
U	Wipro	Marketing	2 yrs.
V	Infosys	Management	5 yrs.
W	HP	Sales	8 yrs.

Clearly, the experience of the one who works in Management department is two years less than the one who works in Finance department.

The correct answer is option d.

17. Four of the following five are alike in a certain way and hence form a group. Which is the one that doesn't belong to that group?

The one who is an employee of Lenovo
The one who works in Marketing
The one who is an employee of Dell
The one who works in Management
The one who is an employee of HP

Solution:

1) Q is an employee of HCL and works in Finance department.

2) T has more experience than S who has 9 years of experience.

3) U has minimum experience that is 7 years less than S.

Persons	Companies	Departments	Experience
P			
Q	HCL	Finance	
R			
S			9 yrs.
T			
U			2 yrs.
V			
W			

4) T works in Content Department.

5) Difference between the experience of S and R is 2 years. (R has either experience of 7 years or 11 years)

Here, we have two possible cases i.e. Case 1 and Case 2:

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P						
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V						
W						

6) V is an employee of Infosys but doesn't work in HR department.

7) P works in Advertising department.

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W						

8) W is an employee of HP and has 3 years less experience than R.

9) An employee of Accenture works in IT department.

10) The one who has least experience is neither an employee of Accenture nor works in HR department.

Now, here in Case 1 and 2; Accenture and IT can come at 2 places i.e. R and S only as U has minimum experience in both the cases.

Here, we have two more possible cases i.e. Case 1a and Case 2a:

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.			7 yrs.
S			9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

	Case 1a			Case 2a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.	Accenture	IT	7 yrs.
S	Accenture	IT	9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

11) The one who is an employee of HP doesn't work in HR department. (In case 1, HR dept. is of S and In case 2, it is of V as per 11 and 10)

12) The one who is an employee of Infosys has 3 years less experience than W.

Here, Case 2 and Case 2a get eliminated and we will further proceed with Case 1 and Case 1a:

	Case 1			Case 1a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.		HR	11 yrs.
S		HR	9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys		5 yrs.	Infosys		5 yrs.
W	HP		8 yrs.	HP		8 yrs.

13) The experience of the one works in Sales department is divisible by 4. (It will come at W only)

14) The one who works in HR department is an employee of TCS.

15) P has less experience than S but more than the one who is an employee of Infosys.

16) P doesn't have 7 years of experience. (In case 1: P has less than 9 and more than 5 years of experience i.e. 6/7/8. Now, we are only left with 6. In case 2: there cannot be any value which satisfies all the conditions)

17) The one who works in HR department doesn't has maximum years of experience. (not required statement)

Here, Case 1a gets eliminated and we will further proceed with Case 1:

	Case 1		
Persons	**Companies**	**Departments**	**Experience**
P		Advertising	6 yrs.
Q	HCL	Finance	
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T		Content	
U			2 yrs.
V	Infosys		5 yrs.
W	HP	Sales	8 yrs.

18) The experience of the one who is an employee of Dell is a multiple of 5. (Dell and 10 can come at T only)

19) An employee of Wipro works in marketing department. (U is the only option)

20) Q has less experience than the one who works in IT department but more than P. (Q has less experience than 11 and more than 6. Now, the only option is 7)

P works in Lenovo company and V works in Management department.

We have the final arrangement:

Persons	Companies	Departments	Experience
P	Lenovo	Advertising	6 yrs.
Q	HCL	Finance	7 yrs.
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T	Dell	Content	10 yrs.
U	Wipro	Marketing	2 yrs.
V	Infosys	Management	5 yrs.
W	HP	Sales	8 yrs.

Clearly, ‘the one who works in Management’ doesn’t belong to that group except ‘the one who works in Management’ the experience of all the other options are even number.

The correct answer is option.

18. In which company R works and what is his experience?

HP and has 8 years of experience
HCL and has 7 years of experience
Accenture and has 11 years of experience
Wipro and has 2 years of experience
None of these

Solution:

1) Q is an employee of HCL and works in Finance department.

2) T has more experience than S who has 9 years of experience.

3) U has minimum experience that is 7 years less than S.

Persons	Companies	Departments	Experience
P			
Q	HCL	Finance	
R			
S			9 yrs.
T			
U			2 yrs.
V			
W			

4) T works in Content Department.

5) Difference between the experience of S and R is 2 years. (R has either experience of 7 years or 11 years)

Here, we have two possible cases i.e. Case 1 and Case 2:

	Case 1			Case 2		
Persons	Companies	Departments	Experience	Companies	Departments	Experience
P						
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V						
W						

6) V is an employee of Infosys but doesn't work in HR department.

7) P works in Advertising department.

	Case 1			Case 2		
Persons	Companies	Departments	Experience	Companies	Departments	Experience
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.			7 yrs.
S			9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W						

8) W is an employee of HP and has 3 years less experience than R.

9) An employee of Accenture works in IT department.

10) The one who has least experience is neither an employee of Accenture nor works in HR department.

Now, here in Case 1 and 2; Accenture and IT can come at 2 places i.e. R and S only as U has minimum experience in both the cases.

Here, we have two more possible cases i.e. Case 1a and Case 2a:

	Case 1			Case 2		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.			7 yrs.
S			9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

	Case 1a			Case 2a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R			11 yrs.	Accenture	IT	7 yrs.
S	Accenture	IT	9 yrs.			9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys			Infosys		
W	HP		8 yrs.	HP		4 yrs.

11) The one who is an employee of HP doesn't work in HR department. (In case 1, HR dept. is of S and In case 2, it is of V as per 11 and 10)

12) The one who is an employee of Infosys has 3 years less experience than W.

Here, Case 2 and Case 2a get eliminated and we will further proceed with Case 1 and Case 1a:

	Case 1			Case 1a		
Persons	**Companies**	**Departments**	**Experience**	**Companies**	**Departments**	**Experience**
P		Advertising			Advertising	
Q	HCL	Finance		HCL	Finance	
R	Accenture	IT	11 yrs.		HR	11 yrs.
S		HR	9 yrs.	Accenture	IT	9 yrs.
T		Content			Content	
U			2 yrs.			2 yrs.
V	Infosys		5 yrs.	Infosys		5 yrs.
W	HP		8 yrs.	HP		8 yrs.

13) The experience of the one works in Sales department is divisible by 4. (It will come at W only)

14) The one who works in HR department is an employee of TCS.

15) P has less experience than S but more than the one who is an employee of Infosys.

16) P doesn't have 7 years of experience. (In case 1: P has less than 9 and more than 5 years of experience i.e. 6/7/8. Now, we are only left with 6. In case 2: there cannot be any value which satisfies all the conditions)

17) The one who works in HR department doesn't has maximum years of experience. (not required statement)

Here, Case 1a gets eliminated and we will further proceed with Case 1:

	Case 1		
Persons	**Companies**	**Departments**	**Experience**
P		Advertising	6 yrs.
Q	HCL	Finance	
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T		Content	
U			2 yrs.
V	Infosys		5 yrs.
W	HP	Sales	8 yrs.

18) The experience of the one who is an employee of Dell is a multiple of 5. (Dell and 10 can come at T only)

19) An employee of Wipro works in marketing department. (U is the only option)

20) Q has less experience than the one who works in IT department but more than P. (Q has less experience than 11 and more than 6. Now, the only option is 7)

P works in Lenovo company and V works in Management department.

We have the final arrangement:

Persons	Companies	Departments	Experience
P	Lenovo	Advertising	6 yrs.
Q	HCL	Finance	7 yrs.
R	Accenture	IT	11 yrs.
S	TCS	HR	9 yrs.
T	Dell	Content	10 yrs.
U	Wipro	Marketing	2 yrs.
V	Infosys	Management	5 yrs.
W	HP	Sales	8 yrs.

Clearly, Accenture and has 11 years of experience.

The correct answer is option.

(19-23) **Direction:** A word and number arrangement machine, when given an input line of words and numbers, rearranges it in every step following a certain rule. Following is an illustration of an input line of words & numbers and various

steps of rearrangement.

Input: AC MX OR TB LF ZS
Step 1: ZS MX OR TB LF AC
Step 2: YD LG NC
Step 3: 20 04 10
Step 4: 4 -4 1

And step IV is the last step for this input. Now, find out appropriate answers in the following questions following the above rules.

Input: MU YD HK PV BW QE

19.What is the position of 'BW' in step 1 from the right end?

Third
Fourth
Fifth
Second
None of these

Solution:

Logic behind the steps:

Step 1: Arranged in the descending order according to the (1st letter P.V. + 2nd letter P.V.)

Step 2: 1st letter from the first word is replaced by the previous letter and 2nd letter from the 6th word is replaced by the next letter. Similarly, 1st letter from the second word is replaced by the previous letter and 2nd letter from the 5th word is replaced by the next letter and 1st letter from the third word is replaced by the previous letter and 2nd letter from the 4th word is replaced by the next letter.

Step 3: Number = (1st letter PV – 2nd letter PV) – 1

Step 4: Number = (Square of 1st digit – second digit)

Input: MU YD HK PV BW QE

Step 1: PV MU YD BW QE HK

Step 2: OL LF XX

Step 3: 02 05 -1

Step 4: -2 -5 1

Clearly, 'BW' is 3rd from the right in step 1.

20. What is the product of numbers in the last step?

-12
10
0
20
None of these

Solution:

Logic behind the steps:

Step 1: Arranged in the descending order according to the (1st letter P.V. + 2nd letter P.V.)

Step 2: 1st letter from the first word is replaced by the previous letter and 2nd letter from the 6th word is replaced by the next letter. Similarly, 1st letter from the second word is replaced by the previous letter and 2nd letter from the 5th word is replaced by the next letter and 1st letter from the third word is replaced by the previous letter and 2nd letter from the 4th word is replaced by the next letter.

Step 3: Number = (1st letter PV – 2nd letter PV) – 1

Step 4: Number = (Square of 1st digit – second digit)

Input: MU YD HK PV BW QE

Step 1: PV MU YD BW QE HK

Step 2: OL LF XX

Step 3: 02 05 -1

Step 4: -2 -5 1

Required product = (-2) x (-5) x 1 = 10.

21. Which of the following is the middle word in step 2?

KG
RE
LF
FU
None of these

Solution:

Logic behind the steps:

Step 1: Arranged in the descending order according to the (1st letter P.V. + 2nd letter P.V.)

Step 2: 1st letter from the first word is replaced by the previous letter and 2nd letter from the 6th word is replaced by the next letter. Similarly, 1st letter from the second word is replaced by the previous letter and 2nd letter from the 5th word is replaced by the next letter and 1st letter from the third word is replaced by the previous letter and 2nd letter from the 4th word is replaced by the next letter.

Step 3: Number = (1st letter PV – 2nd letter PV) – 1

Step 4: Number = (Square of 1st digit – second digit)

Input: MU YD HK PV BW QE

Step 1: PV MU YD BW QE HK

Step 2: OL LF XX

Step 3: 02 05 -1

Step 4: -2 -5 1

Clearly, LF is the middle word in step 2.

22. What is the sum of the numbers in step 3?

8
10
12
6
None of these

Solution:

Logic behind the steps:

Step 1: Arranged in the descending order according to the (1st letter P.V. + 2nd letter P.V.)

Step 2: 1st letter from the first word is replaced by the previous letter and 2nd letter from the 6th word is replaced by the next letter. Similarly, 1st letter from the second word is replaced by the previous letter and 2nd letter from the 5th word is replaced by the next letter and 1st letter from the third word is replaced by the previous letter and 2nd letter from the 4th word is replaced by the next letter.

Step 3: Number = (1st letter PV – 2nd letter PV) – 1

Step 4: Number = (Square of 1st digit – second digit)

Input: MU YD HK PV BW QE

Step 1: PV MU YD BW QE HK

Step 2: OL LF XX

Step 3: 02 05 -1

Step 4: -2 -5 1

Required sum = 2 + 5 – 1 = 6

23. Which of the following is 1st from the left end in step 2?

TR
OL
VE
LG
None of these

Solution:

Logic behind the steps:

Step 1: Arranged in the descending order according to the (1st letter P.V. + 2nd letter P.V.)

Step 2: 1st letter from the first word is replaced by the previous letter and 2nd letter from the 6th word is replaced by the next letter. Similarly, 1st letter from

the second word is replaced by the previous letter and 2nd letter from the 5th word is replaced by the next letter and 1st letter from the third word is replaced by the previous letter and 2nd letter from the 4th word is replaced by the next letter.

Step 3: Number = (1st letter PV – 2nd letter PV) – 1

Step 4: Number = (Square of 1st digit – second digit)

Input: MU YD HK PV BW QE

Step 1: PV MU YD BW QE HK

Step 2: OL LF XX

Step 3: 02 05 -1

Step 4: -2 -5 1

'OL' is 1st from the left end in step 2.

(24-28) **Direction:** In the following questions, the symbols are used with the following meaning as illustrated below. Study the following information and answer the given questions. In each of the questions given below, statements are followed by some conclusions. You must take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

E & F means E < F as well as some E is not F.

E * F means E ≥ F as well as no E is F.

E β F means E > F as well as only a few E is F.

E £ F means E ≤ F as well as only F is E.

E Ω F means E = F as well as some E is F.

24.Statements:

G & X £ C β B, G £ H.

Conclusions:

I. Some C is not B.

II. X ≤ H

III. No G is C

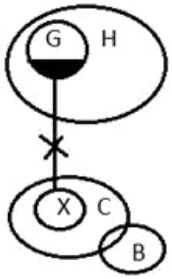
IV. G > B

Only I, II and IV follow
Only II and III follow
Only I and III follow
All follow
None of the above

Solution:

Decoded statements: Some G is not X. Only C is X. Only a few C is B. Only H is G.

$H \geq G < X \leq C = B$



Conclusions:

I. Some C is not B. – Since it is given that only a few C is B that means some C is not B. It is true.

II. $X \leq H$ – It is false as $H \geq G < X$.

III. No G is C – It is false as shown in above figure.

IV. $G > B$ – It is false as $G < X \leq C = B$.

Hence, option E is correct.

25. **Statements:**

E £ F, E Ω G & V, E * H,

Conclusions:

I. Some F is V.

II. No F is V.

III. $V > H$

IV. $G \geq F$.

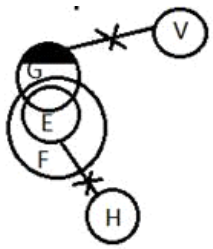
Either I or II and IV follow
Only II and III follow

Only II and IV follow
Either I or II and III follow
None of the above

Solution:

Decoded statements: Only F is E. Some E is G. Some G is not V. No E is H.

$H \leq E = G < V$, $E \leq F$.



Conclusions:

I. Some F is V – It is false as shown in above figure.

II. No F is V– It is false as shown in above figure.

III. $V > H$ – It is true as $H \leq E = G < V$.

IV. $G \geq F$. – It is false as $F \geq E = G < V$

Since I and II make a complimentary pair of either or case.

Hence, option D is correct.

26. **Statements:**

L Ω K β M £ C, K * V.

Conclusions:

I. Some M is not V

II. Some C can be L

III. Some L is V

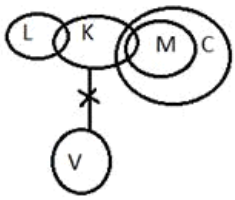
IV. L > V

Only I and III follow
Only I and II follow
Only II and IV follow
All follow
None of the above

Solution:

Decoded statements: Some L is K. Some K is M. Only C is M. No K is V.

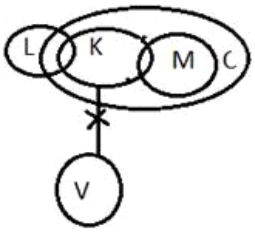
L = K > M ≤ C, K ≥ V



Conclusions:

I. Some M is not V – It is true as shown in above figure.

II. Some C can be L – It is true as shown in below figure.



III. Some L is V – It is false as shown in above figure.

IV. L > V – It is false as L = K ≥ V

Hence, option B is correct.

27. **Statements:**

H β W Ω D * M, D & N

Conclusions:

I. N > W

II. Some H is not M.

III. Some W is M

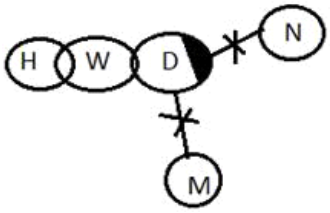
IV. No N is H

Only II and IV follow
Only I and IV follow
Only II follows
All follow
None of the above

Solution:

Decoded statements: Only a few H is W. Some W is D. No D is M. Some D is not N.

H > W = D ≥ M, N > D



Conclusions:

I. N > W – It is true as N > D = W

II. Some H is not M.- It is true as shown in above figure.

III. Some W is M – It is false as there is no direct relation.

IV. No N is H - It is false as there is no direct relation.

Hence, option E is correct.

(28-32) **Direction:** Read the following information carefully to give the answers to the questions based on it.

Five superheroes and five supervillains are sitting in two parallel rows having twelve seats containing 5 people each and in such a way that there is an equal distance between adjacent seats. In row 1 five superheroes namely G, H, I, J and K are seated and all of them are facing south and in row 2 five supervillains V, W, X, Y and Z are seated and all of them are facing north. One seat is vacant in each row. Therefore, in the arrangement, each superhero seated in a row faces a supervillain in the other row. All of them using a different weapon among elder wand, shield, hammer, blade, sword, gun, sais, arrows, laser beam and rope (but not necessarily in the same order).

Immediate neighbour of Z faces H. J uses a gun. The one who uses sais sits immediate left of the person who uses arrows. G or the one who uses elder wand is adjacent to the vacant seat which is on the extreme end. There are three people sits between Z and Y. One of the immediate neighbours of H faces X. Two

supervillains are the neighbour of X. I sits second to the left of the vacant seat. One of the immediate neighbours of X is W and W uses a sword. One of the immediate neighbours of W is sitting opposite to J. The one who uses laser beam sits third to the left of the person who uses the rope. I use a blade. G sits second to the left of the person who uses an elder wand. Z sits one of the extreme ends of the row. Y uses Shield. X uses a hammer.

28.Who among following sits on the extreme end of the row?

K and W
H and V
H and Y
J and V
None of these

Solution:

Row 1 (Facing South): G, H, I, J and K

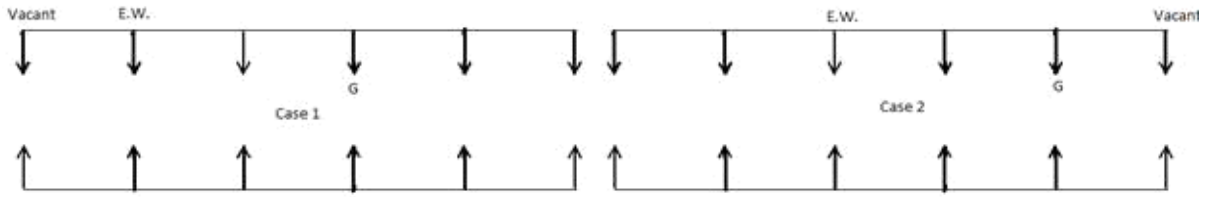
Row 2 (Facing North): V, W, X, Y and Z

Weapons: elder wand, shield, hammer, blade, sword, gun, Sais, arrows, laser beam and rope

Steps:

1. G sits second to the left of the person who uses elder wand.

2. G or the one who uses elder wand is adjacent to the vacant seat which is on the extreme end.

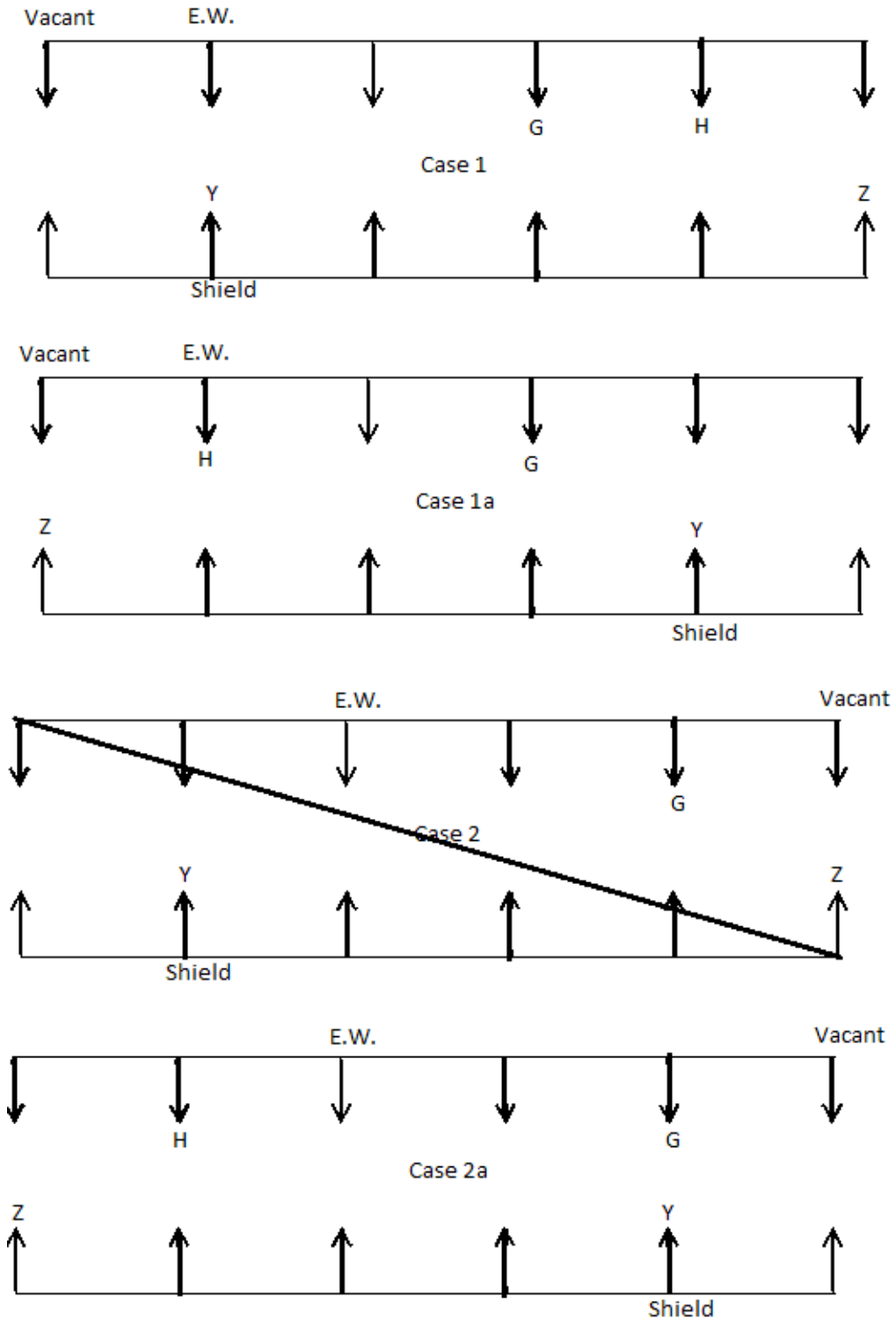


3. Z sits one of the extreme ends of the row.

4. There are three people sits between Z and Y.

5. Y uses Shield.

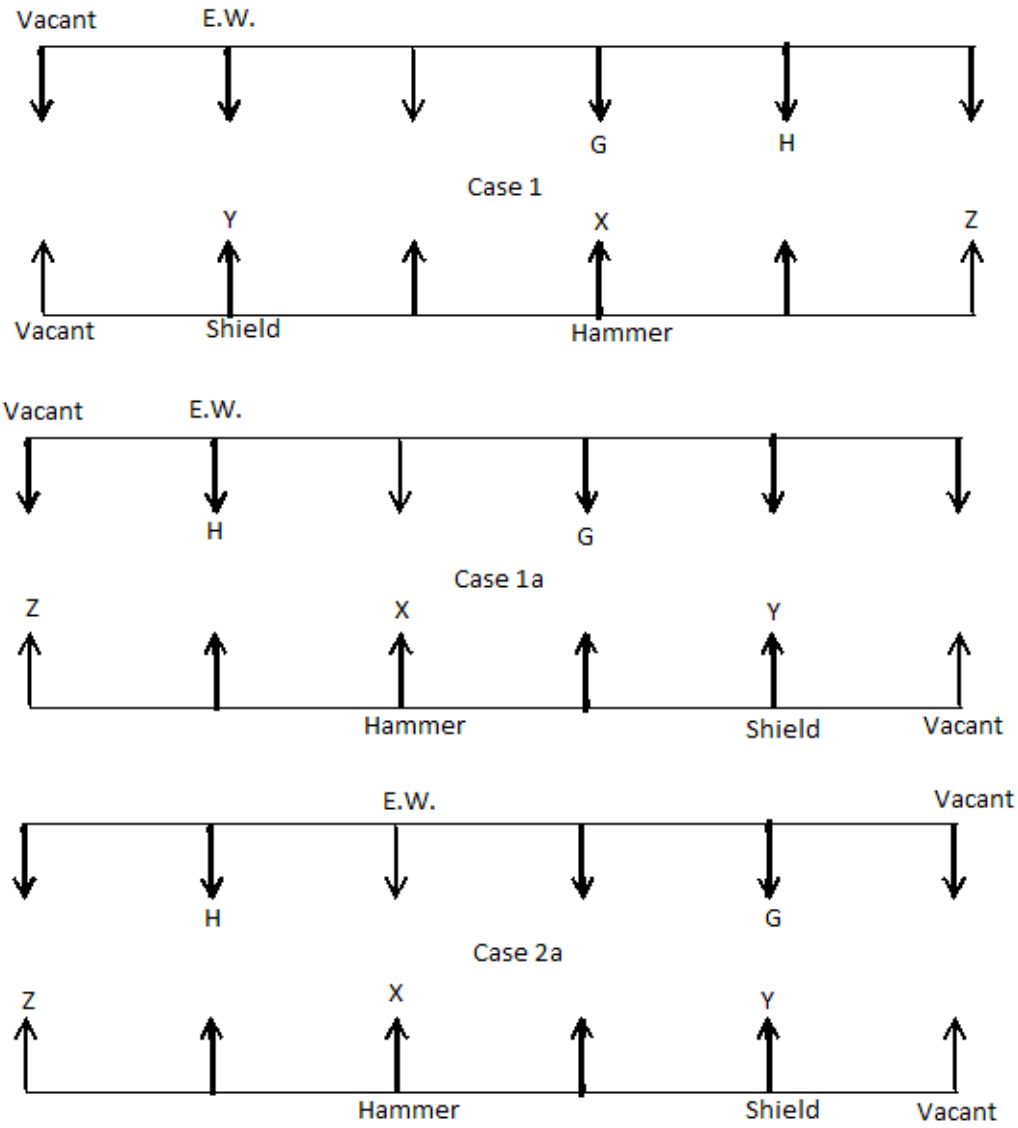
6. Immediate neighbour of Z faces H (That means case 2 is ruled out).



7. One of the immediate neighbours of H faces X.

8. X uses hammer.

9. Two super villains are neighbour of X (That means there is no vacant seat adjacent to X).

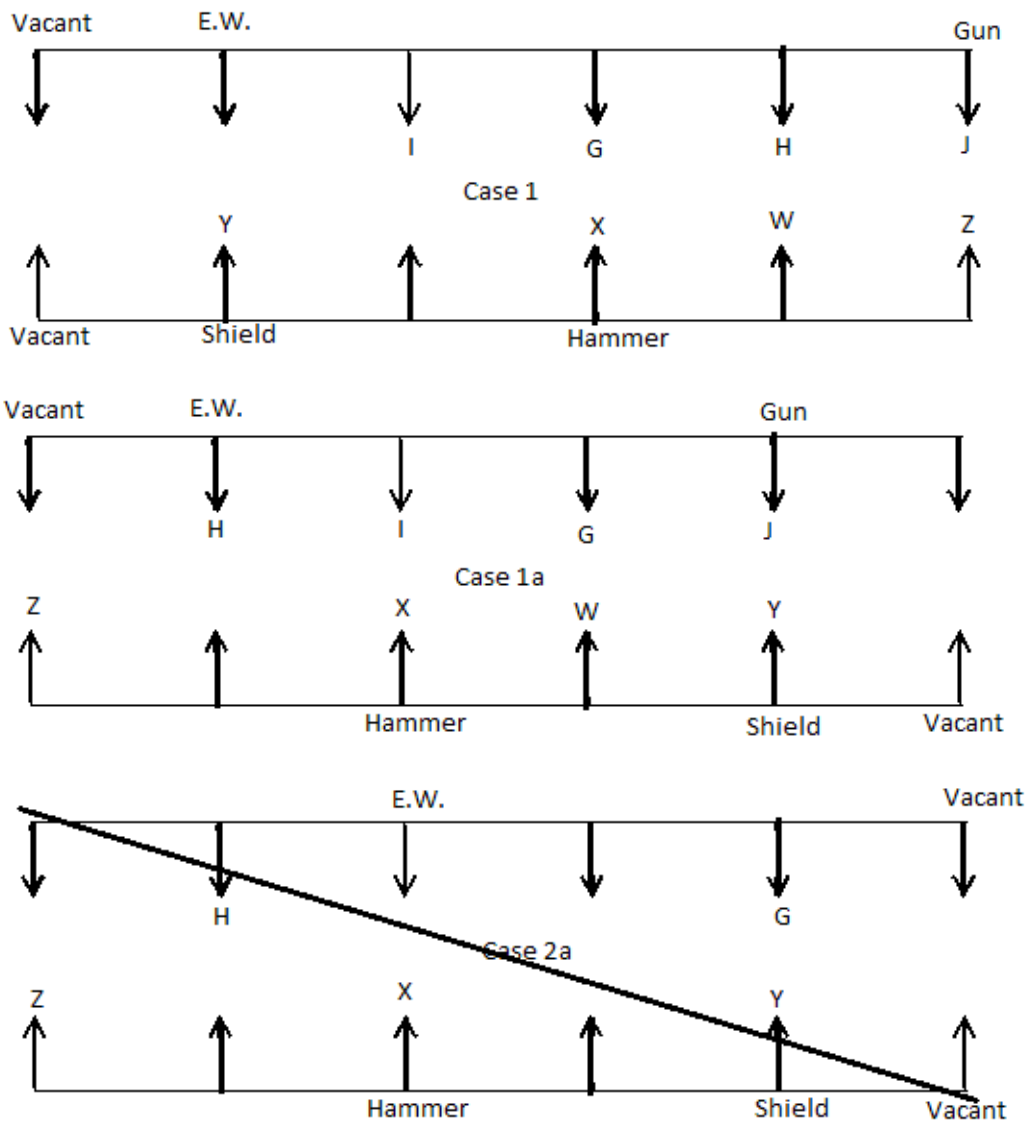


10. I sits second to the left of the vacant seat (That means case 2a is ruled out).

11. One of the immediate neighbour of X is W and W uses sword.

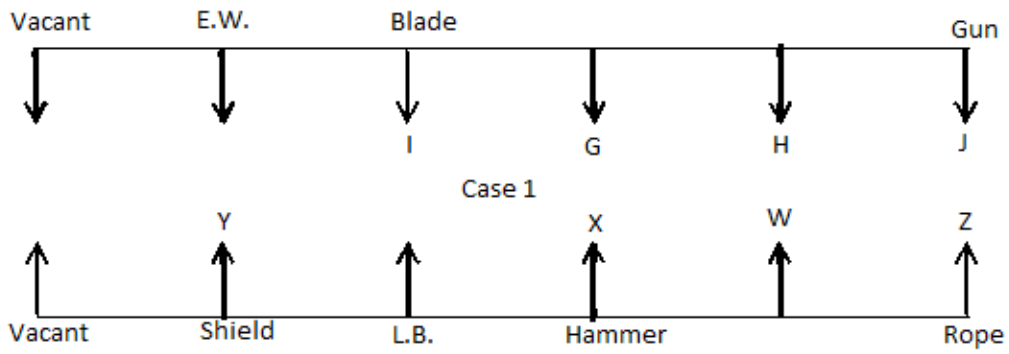
12. One of the immediate neighbours of W is sitting opposite to J.

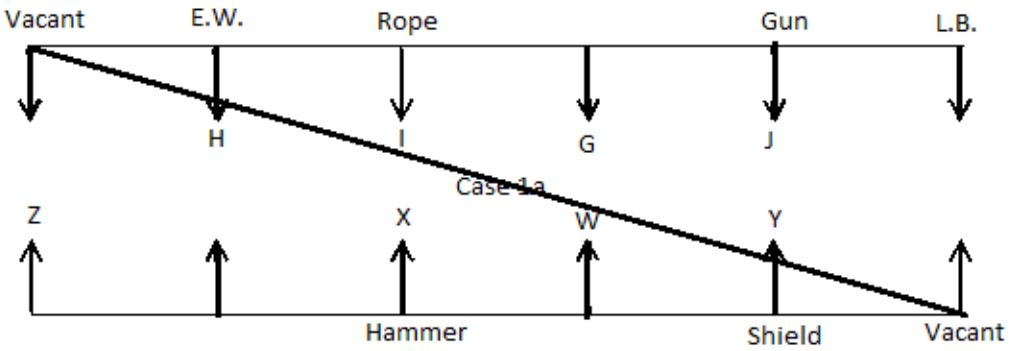
13. J uses gun.



14. The one who uses laser beam sits third to the left of the person who uses rope.

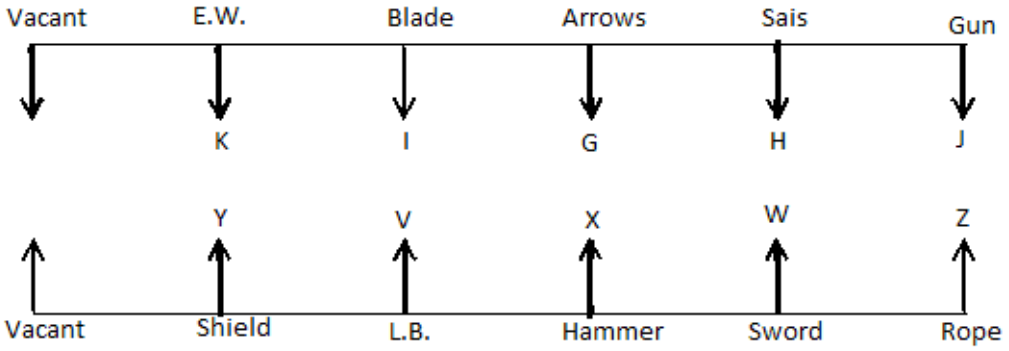
15. I uses blade (That means case 1a is ruled out).





16. The one who uses Sais sits immediate left of the person who uses arrows.

17. That means W uses sword, K uses elder wand and V uses laser beam.



J and Z are sitting at the extreme ends.

29. Who among following uses rope?

V
X
W

Z

None of these

Solution:

Row 1 (Facing South): G, H, I, J and K

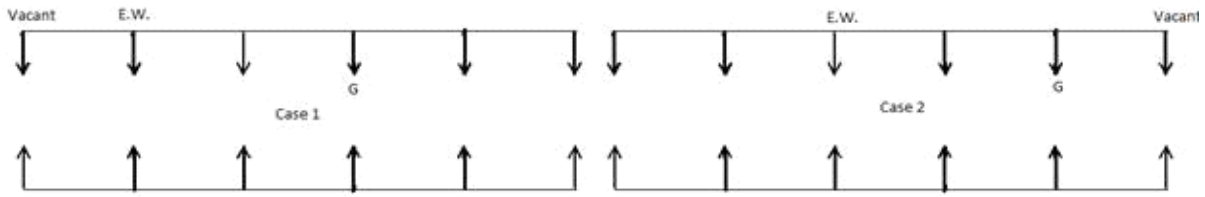
Row 2 (Facing North): V, W, X, Y and Z

Weapons: elder wand, shield, hammer, blade, sword, gun, Sais, arrows, laser beam and rope

Steps:

1. G sits second to the left of the person who uses elder wand.

2. G or the one who uses elder wand is adjacent to the vacant seat which is on the extreme end.

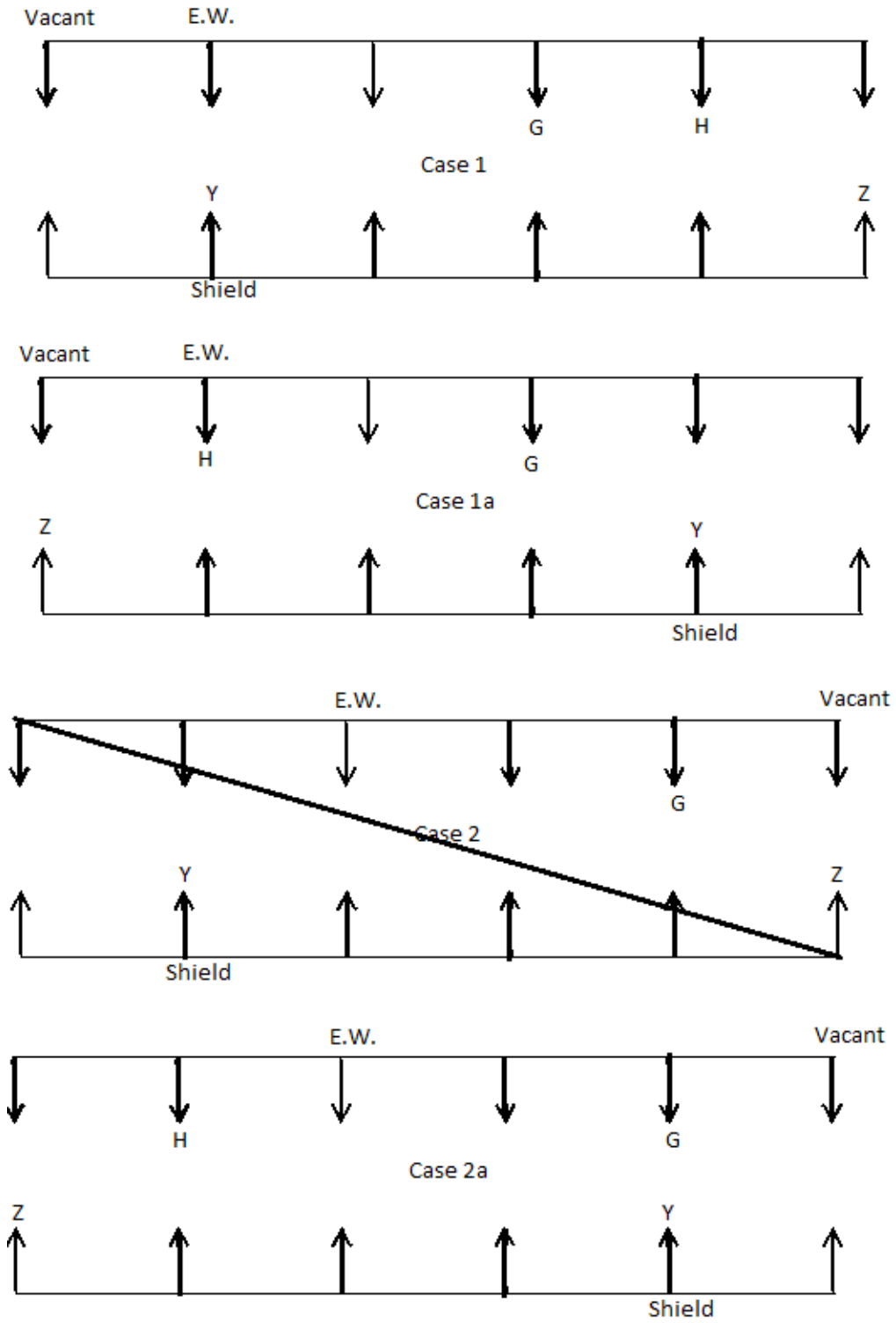


3. Z sits one of the extreme ends of the row.

4. There are three people sits between Z and Y.

5. Y uses Shield.

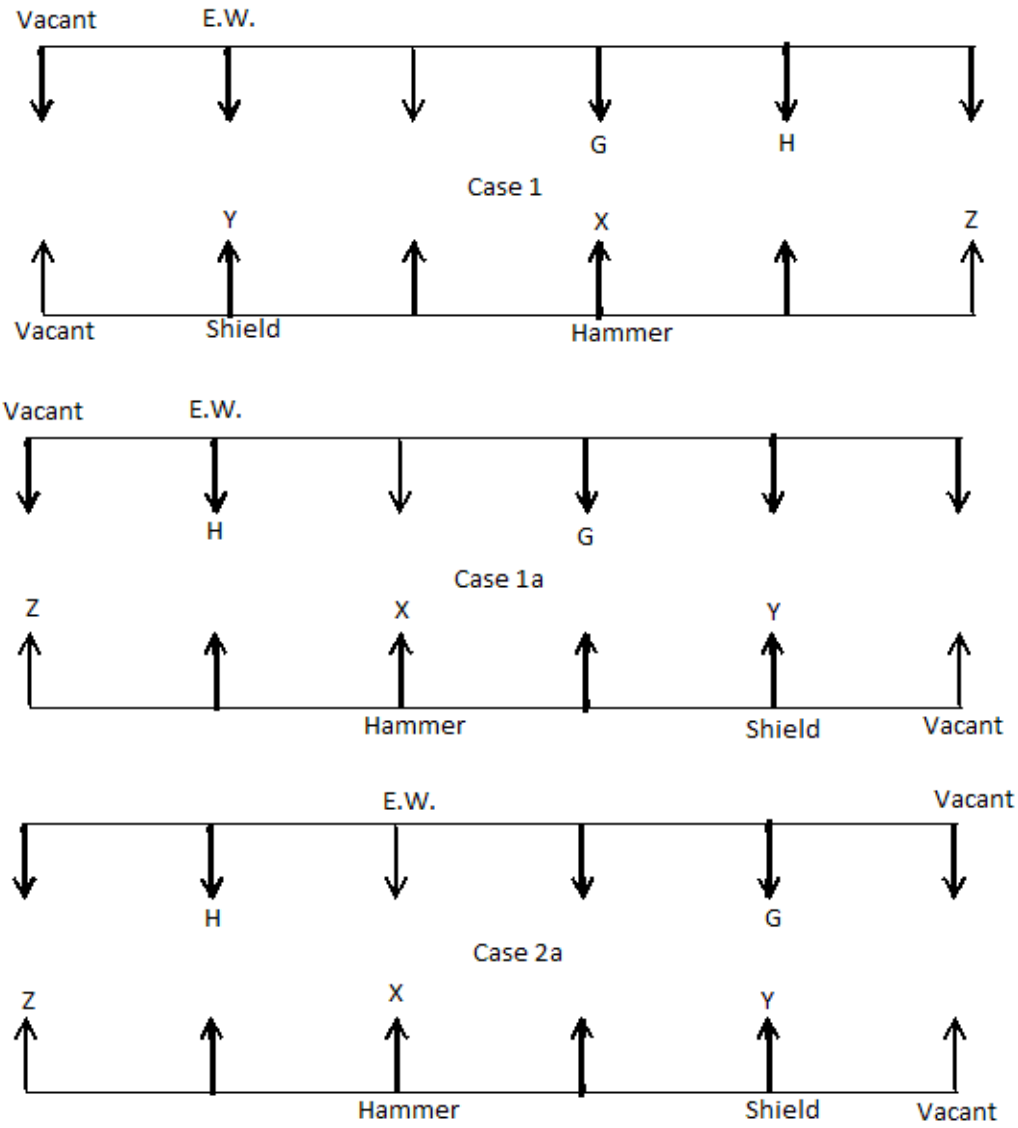
6. Immediate neighbour of Z faces H (That means case 2 is ruled out).



7. One of the immediate neighbours of H faces X.

8. X uses hammer.

9. Two super villains are neighbour of X (That means there is no vacant seat adjacent to X).

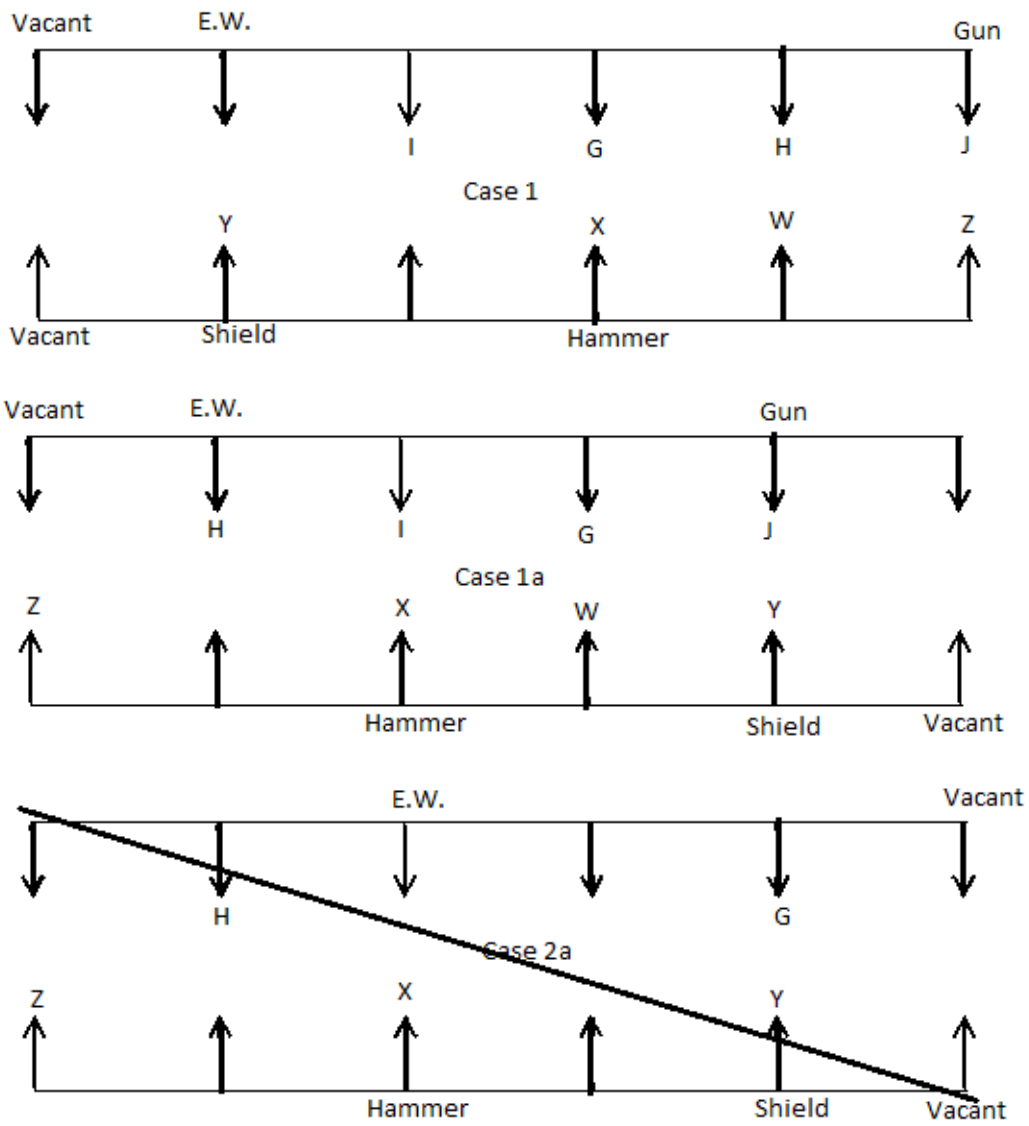


10. I sits second to the left of the vacant seat (That means case 2a is ruled out).

11. One of the immediate neighbour of X is W and W uses sword.

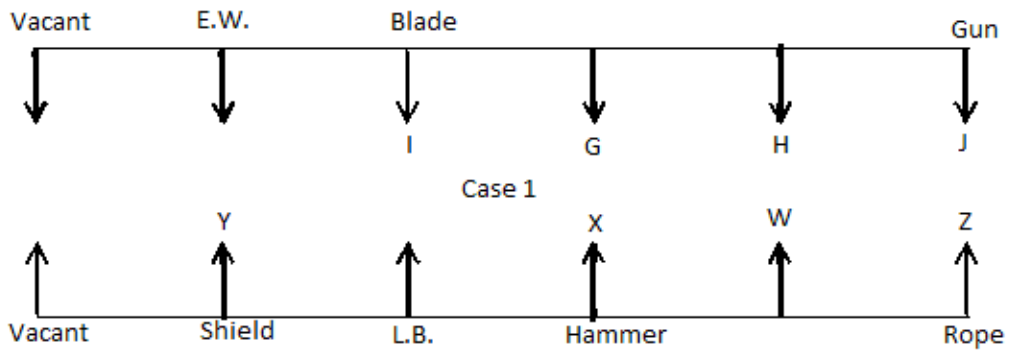
12. One of the immediate neighbours of W is sitting opposite to J.

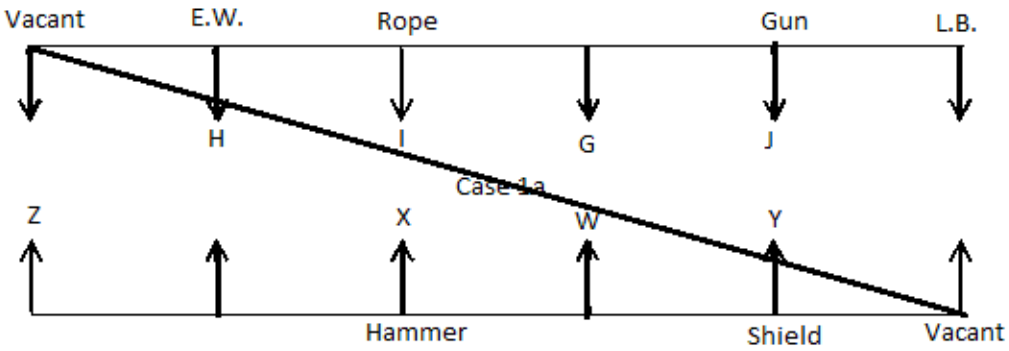
13. J uses gun.



14. The one who uses laser beam sits third to the left of the person who uses rope.

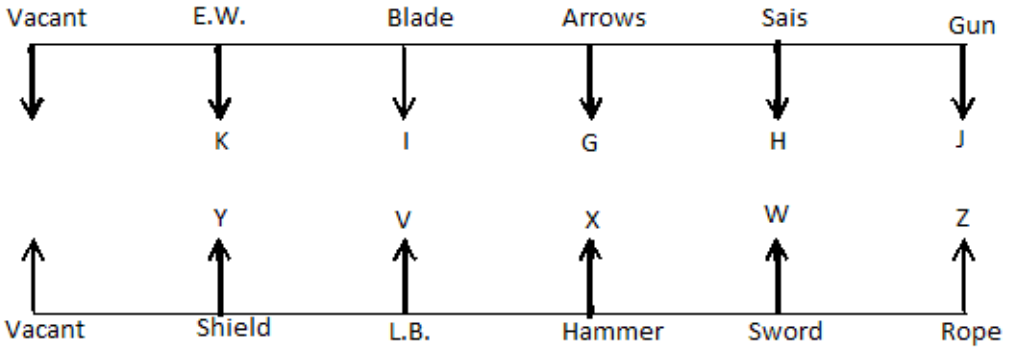
15. I uses blade (That means case 1a is ruled out).





16. The one who uses Sais sits immediate left of the person who uses arrows.

17. That means W uses sword, K uses elder wand and V uses laser beam.



Z uses Rope.

30. Who among following sitting second to the left of Z?

Y
V
X

W
None of these

Solution:

Row 1 (Facing South): G, H, I, J and K

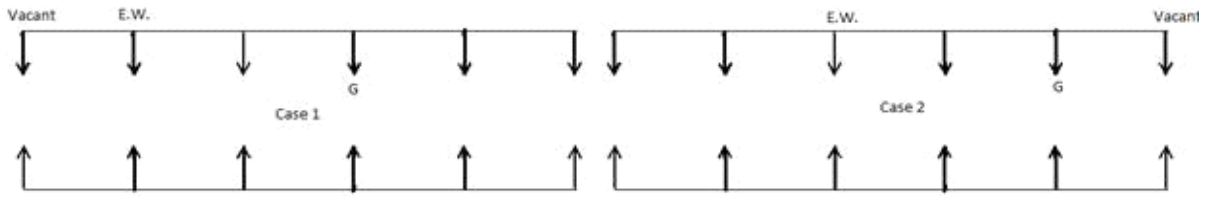
Row 2 (Facing North): V, W, X, Y and Z

Weapons: elder wand, shield, hammer, blade, sword, gun, Sais, arrows, laser beam and rope

Steps:

1. G sits second to the left of the person who uses elder wand.

2. G or the one who uses elder wand is adjacent to the vacant seat which is on the extreme end.

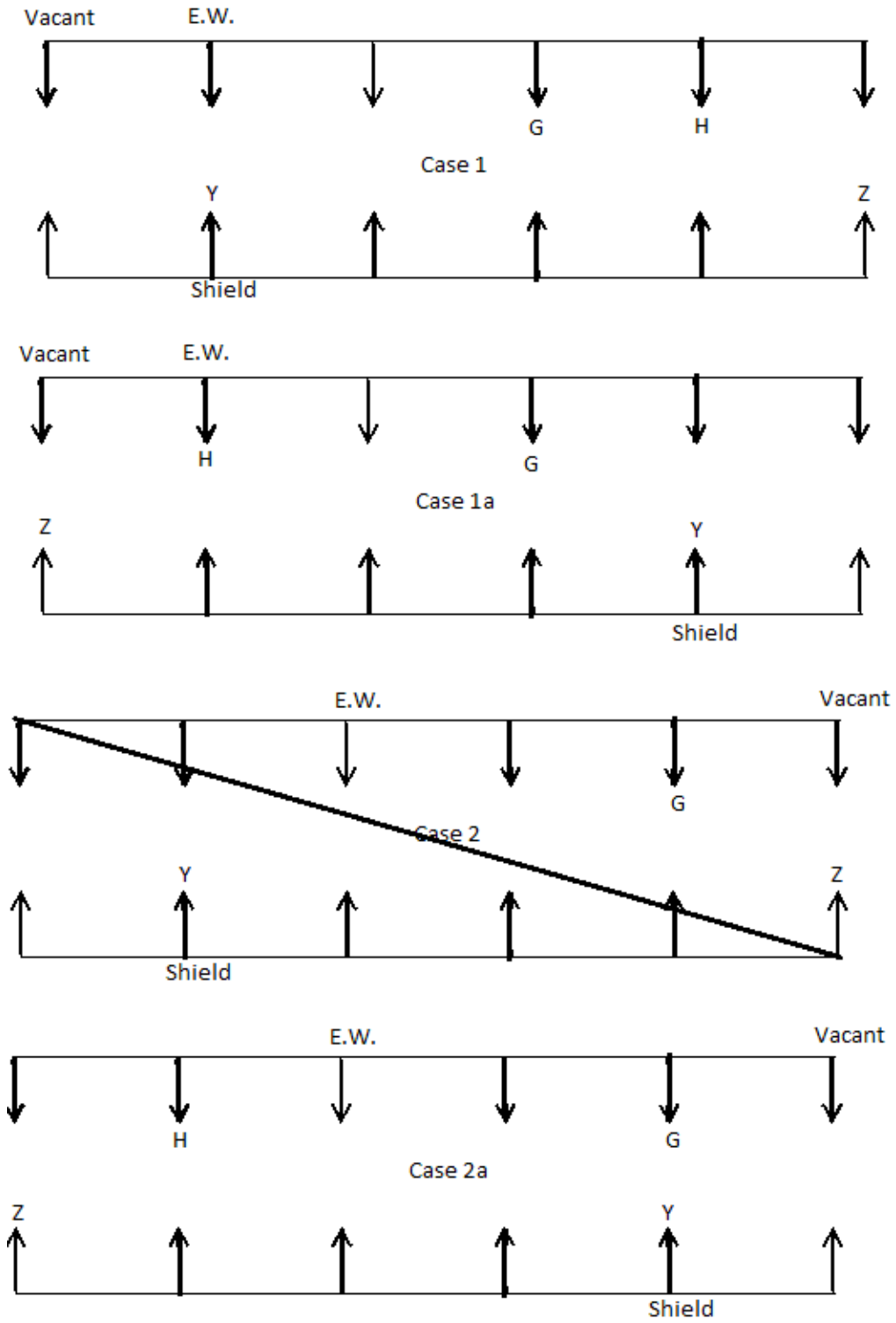


3. Z sits one of the extreme ends of the row.

4. There are three people sits between Z and Y.

5. Y uses Shield.

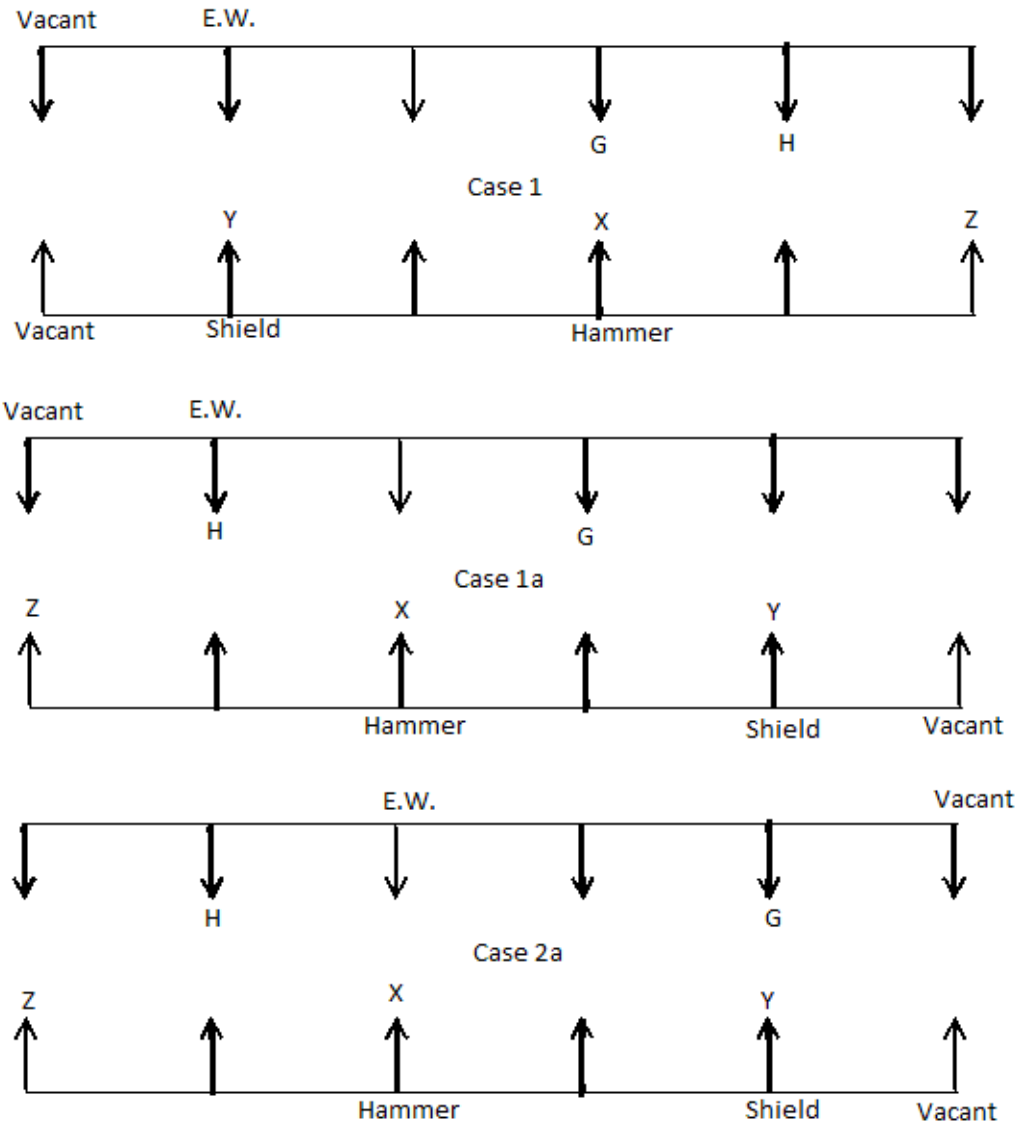
6. Immediate neighbour of Z faces H (That means case 2 is ruled out).



7. One of the immediate neighbours of H faces X.

8. X uses hammer.

9. Two super villains are neighbour of X (That means there is no vacant seat adjacent to X).

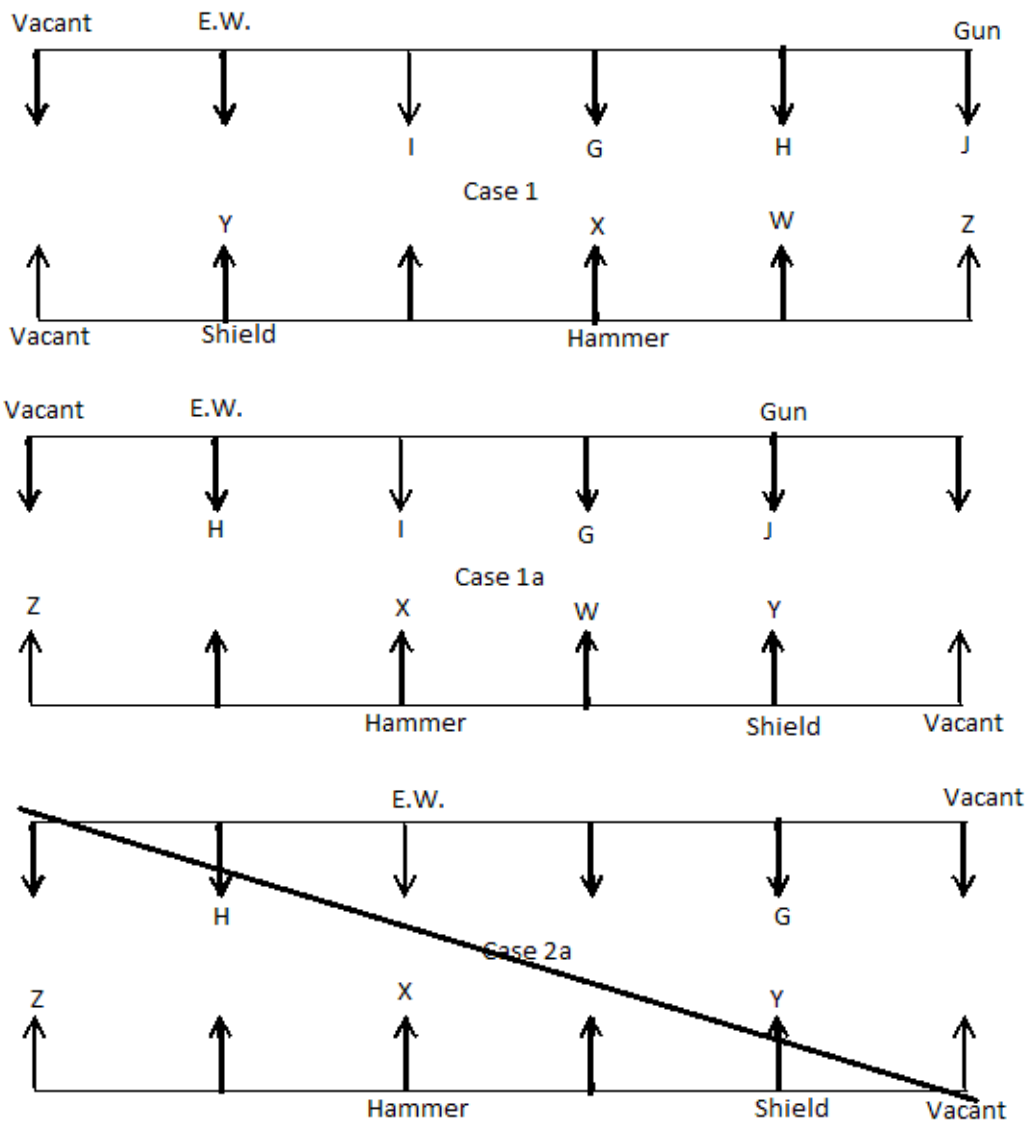


10. I sits second to the left of the vacant seat (That means case 2a is ruled out).

11. One of the immediate neighbour of X is W and W uses sword.

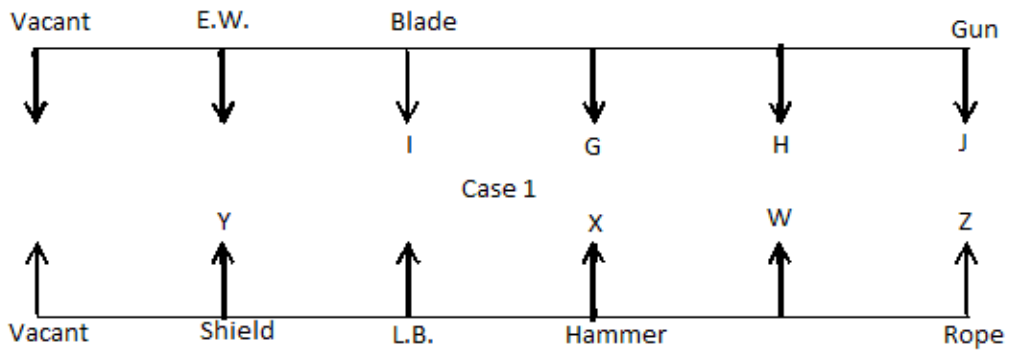
12. One of the immediate neighbours of W is sitting opposite to J.

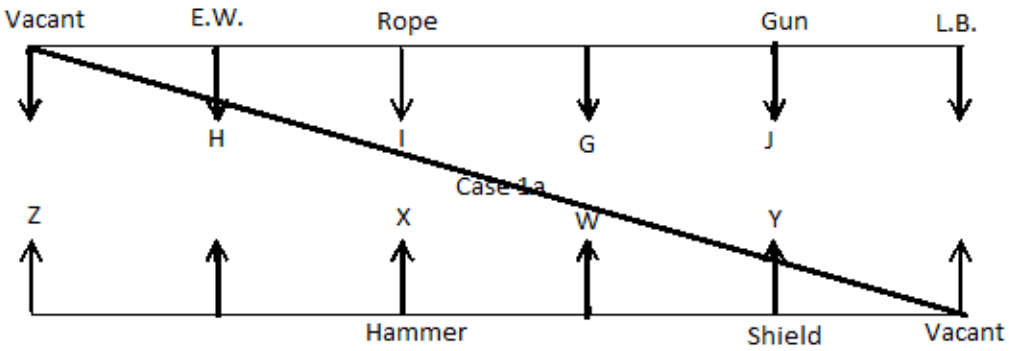
13. J uses gun.



14. The one who uses laser beam sits third to the left of the person who uses rope.

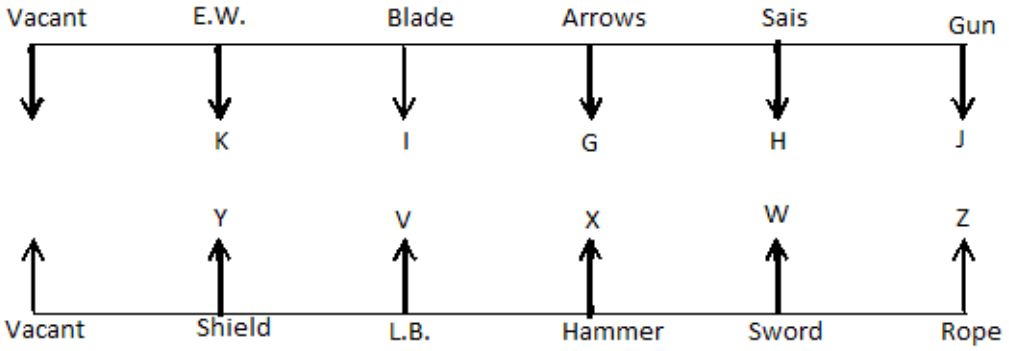
15. I uses blade (That means case 1a is ruled out).





16. The one who uses Sais sits immediate left of the person who uses arrows.

17. That means W uses sword, K uses elder wand and V uses laser beam.



X is 2nd to the left of Z.

31. Who among the following supervillain is facing I?

Z
Y
X

W
V

Solution:

Row 1 (Facing South): G, H, I, J and K

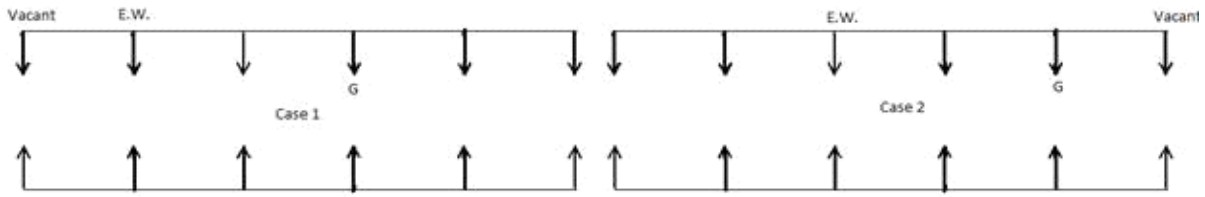
Row 2 (Facing North): V, W, X, Y and Z

Weapons: elder wand, shield, hammer, blade, sword, gun, Sais, arrows, laser beam and rope

Steps:

1. G sits second to the left of the person who uses elder wand.

2. G or the one who uses elder wand is adjacent to the vacant seat which is on the extreme end.

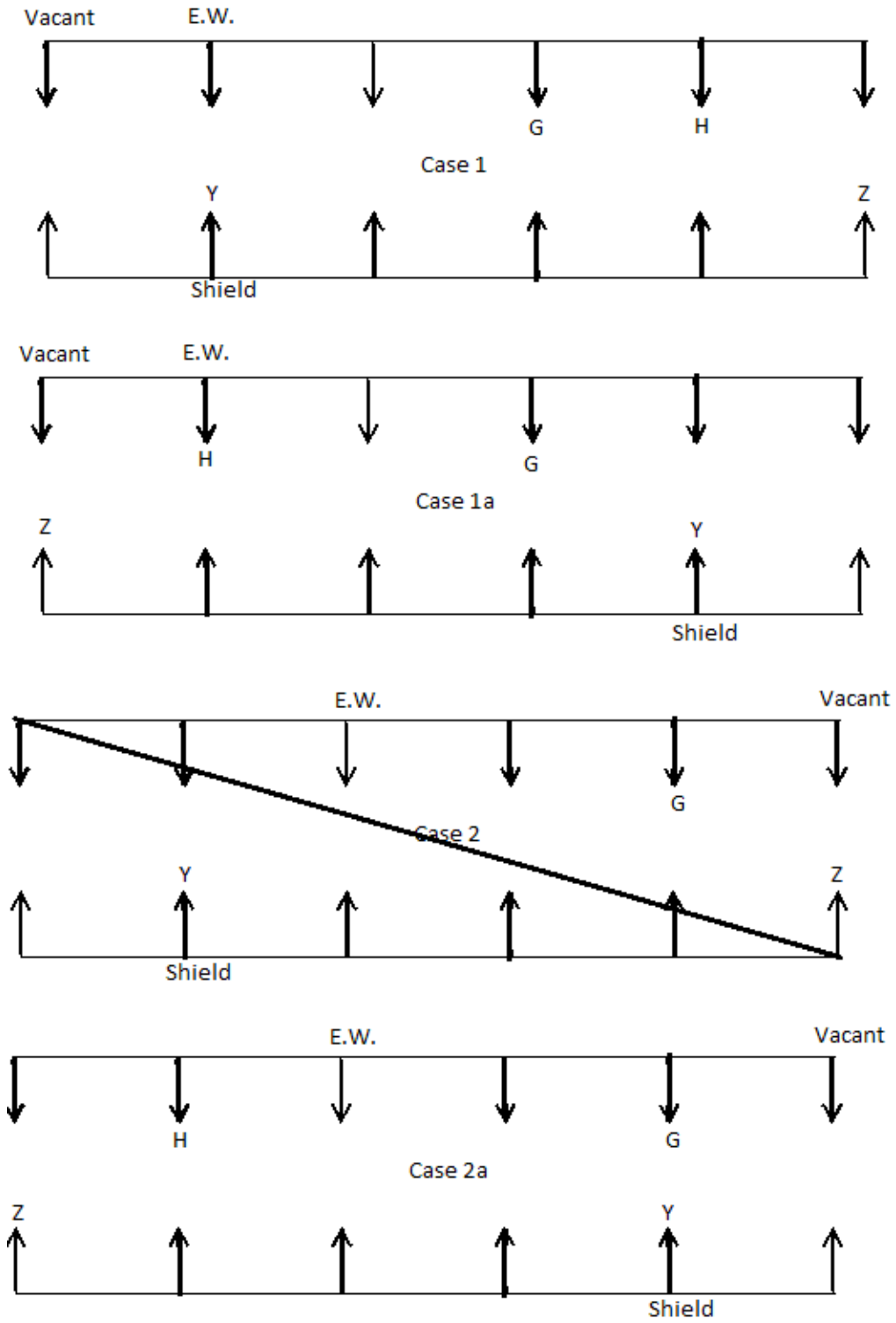


3. Z sits one of the extreme ends of the row.

4. There are three people sits between Z and Y.

5. Y uses Shield.

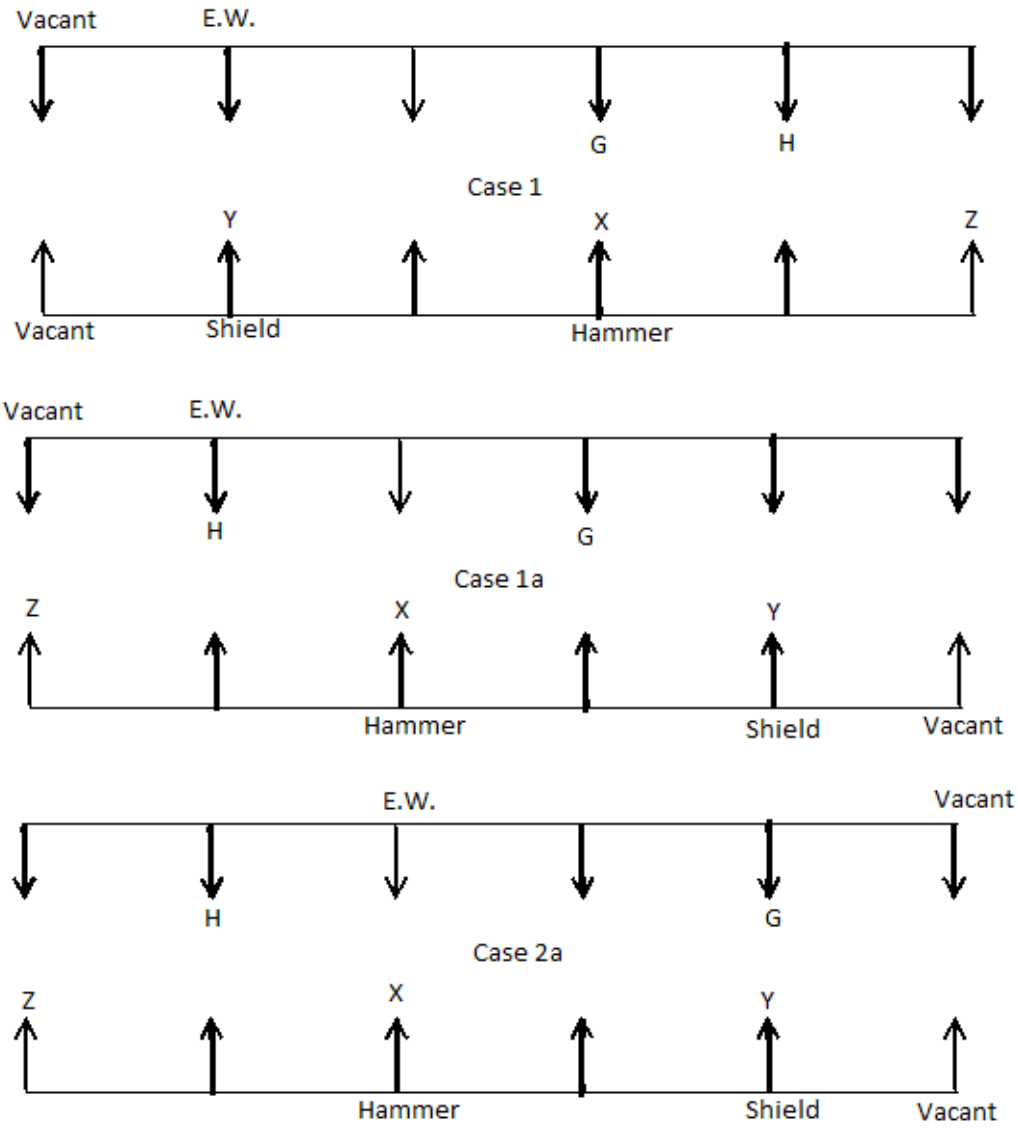
6. Immediate neighbour of Z faces H (That means case 2 is ruled out).



7. One of the immediate neighbours of H faces X.

8. X uses hammer.

9. Two super villains are neighbour of X (That means there is no vacant seat adjacent to X).

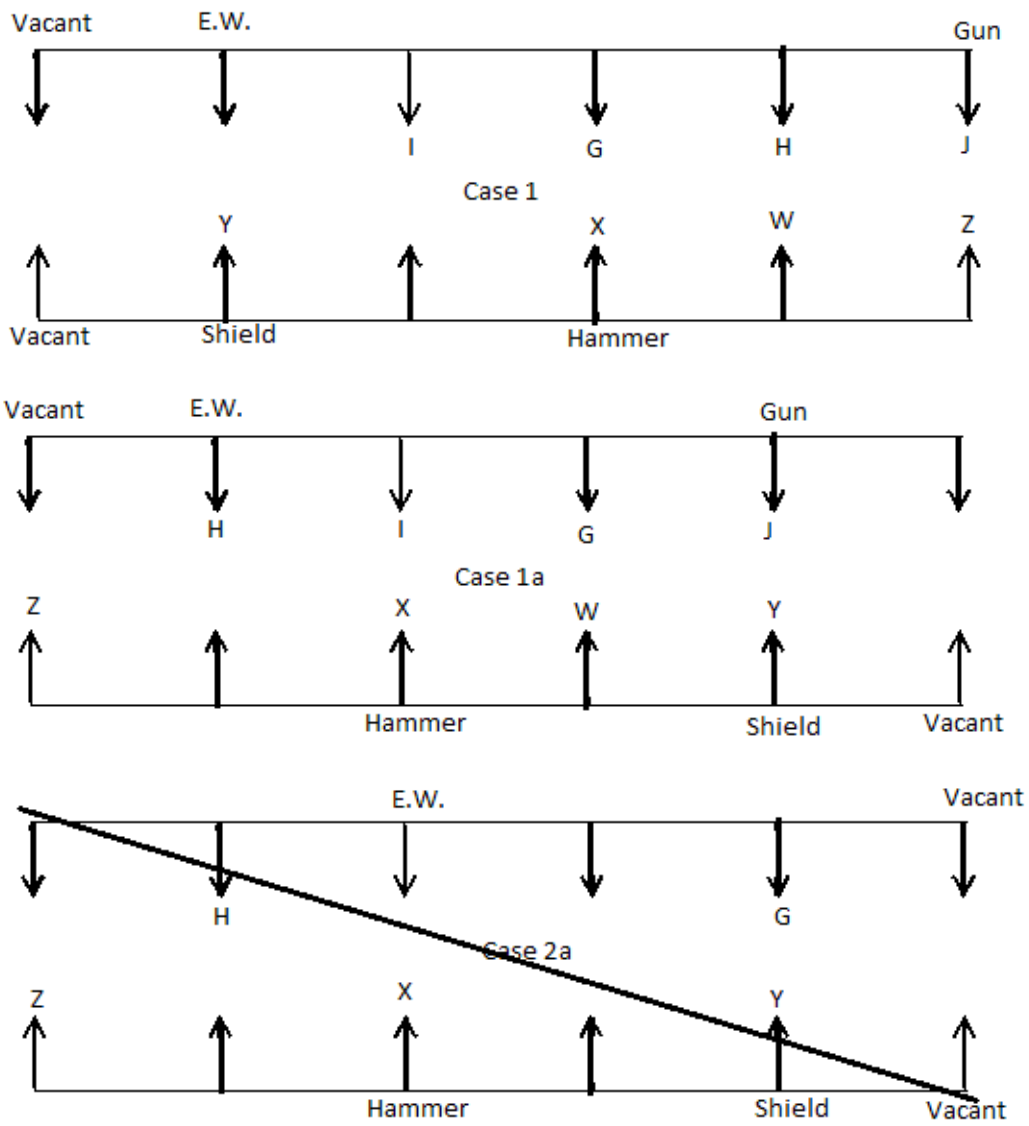


10. I sits second to the left of the vacant seat (That means case 2a is ruled out).

11. One of the immediate neighbour of X is W and W uses sword.

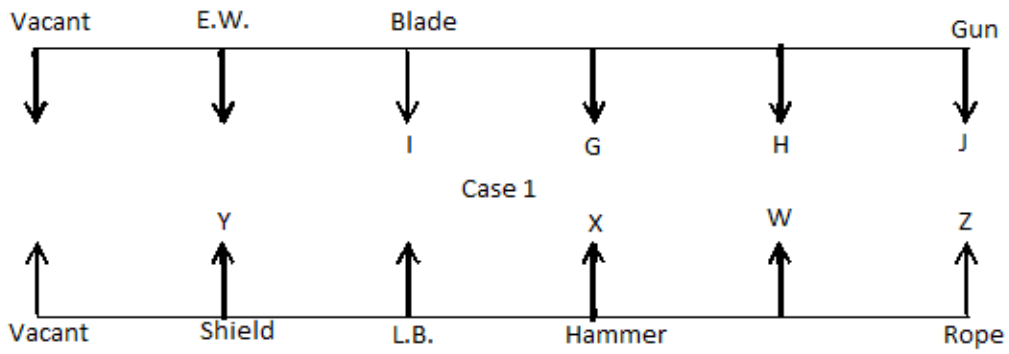
12. One of the immediate neighbours of W is sitting opposite to J.

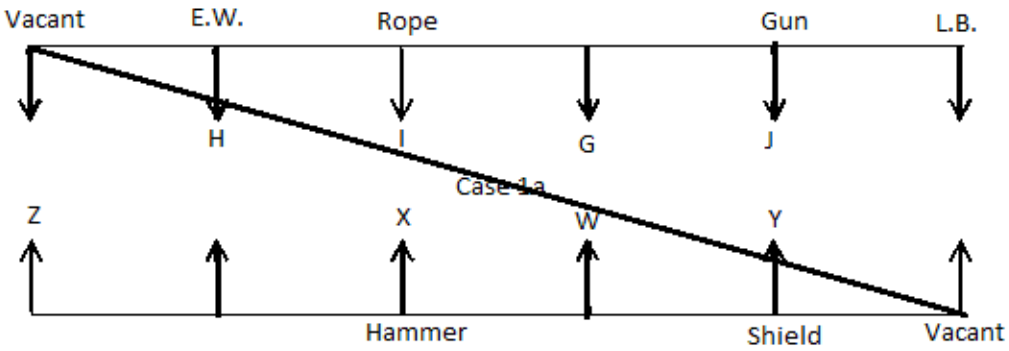
13. J uses gun.



14. The one who uses laser beam sits third to the left of the person who uses rope.

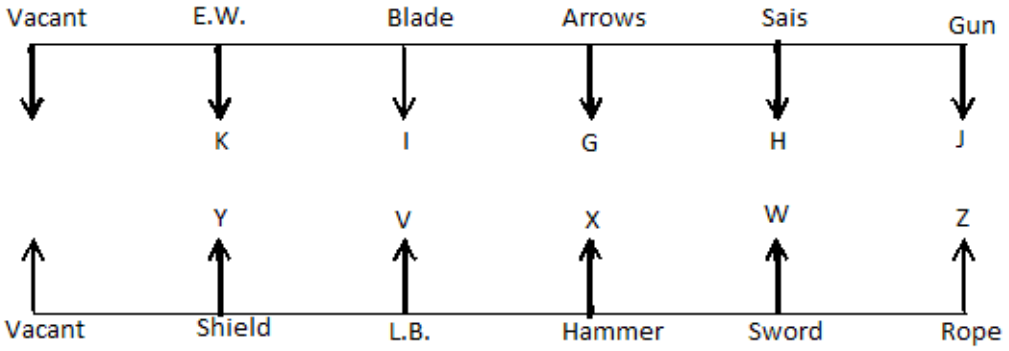
15. I uses blade (That means case 1a is ruled out).





16. The one who uses Sais sits immediate left of the person who uses arrows.

17. That means W uses sword, K uses elder wand and V uses laser beam.



V is facing I.

32. Who among the following use, Sais?

G
H
I

J

K

Solution:

Row 1 (Facing South): G, H, I, J and K

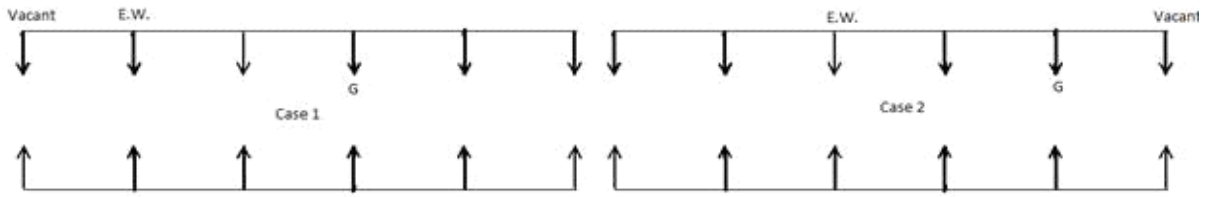
Row 2 (Facing North): V, W, X, Y and Z

Weapons: elder wand, shield, hammer, blade, sword, gun, Sais, arrows, laser beam and rope

Steps:

1. G sits second to the left of the person who uses elder wand.

2. G or the one who uses elder wand is adjacent to the vacant seat which is on the extreme end.

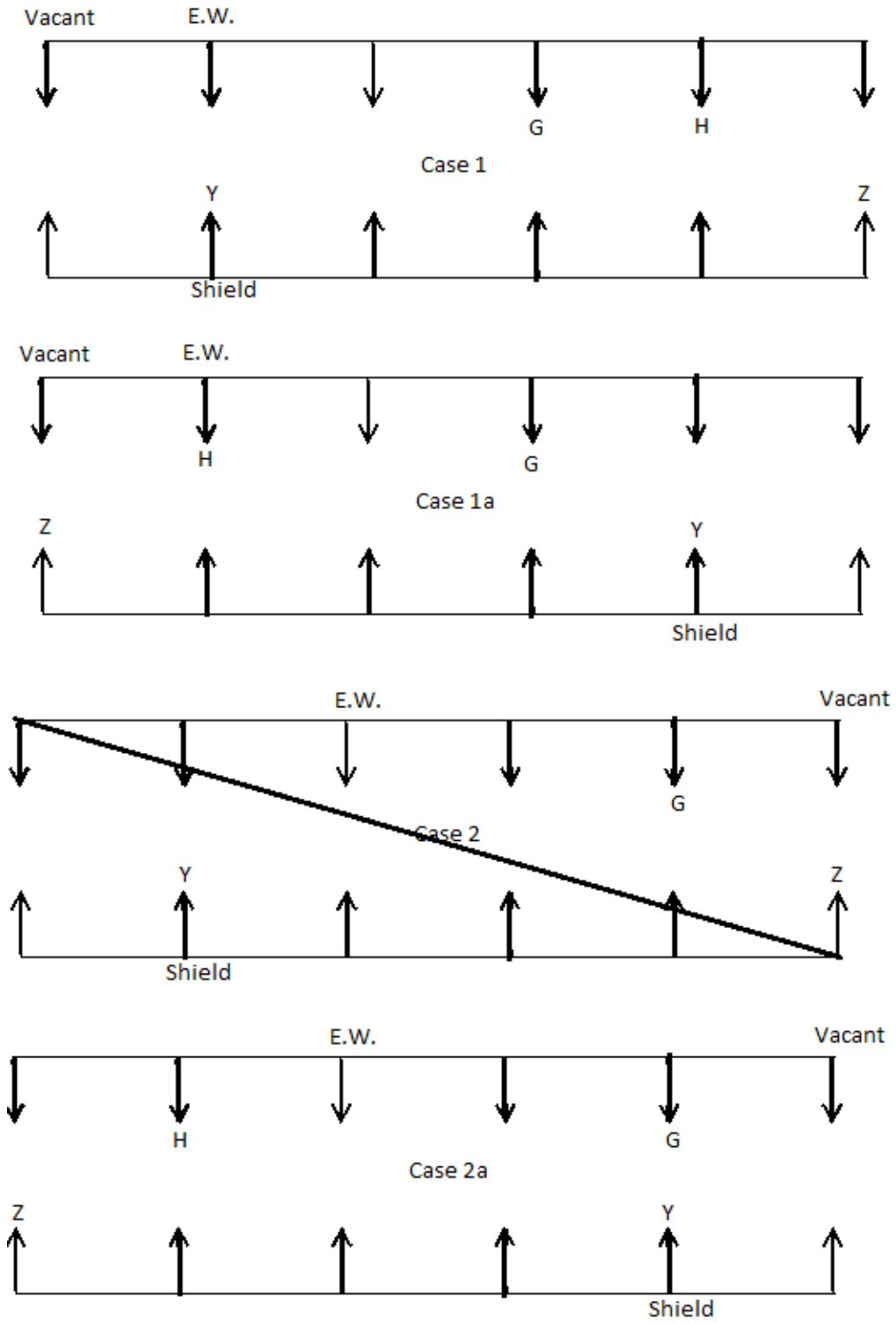


3. Z sits one of the extreme ends of the row.

4. There are three people sits between Z and Y.

5. Y uses Shield.

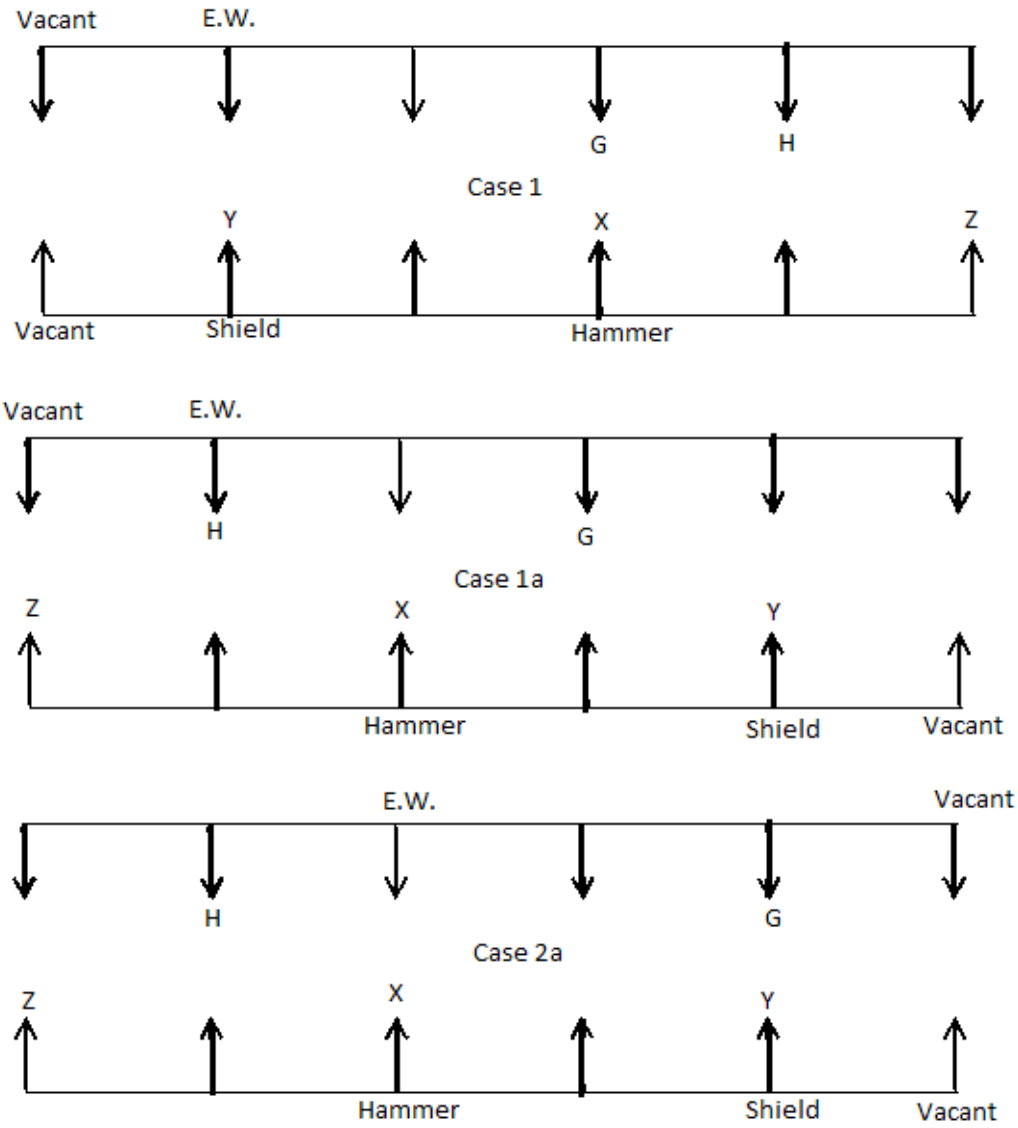
6. Immediate neighbour of Z faces H (That means case 2 is ruled out).



7. One of the immediate neighbours of H faces X.

8. X uses hammer.

9. Two super villains are neighbour of X (That means there is no vacant seat adjacent to X).

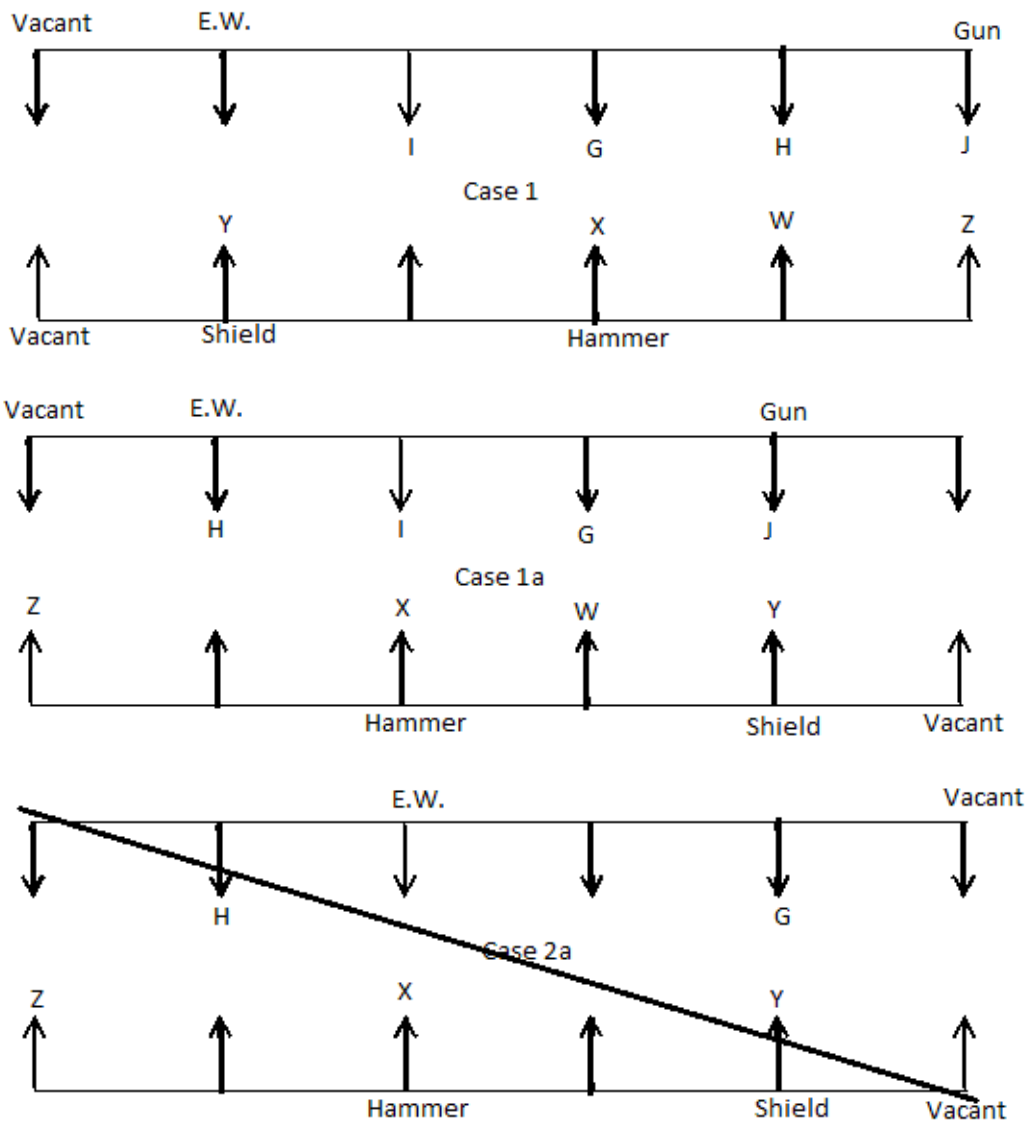


10. I sits second to the left of the vacant seat (That means case 2a is ruled out).

11. One of the immediate neighbour of X is W and W uses sword.

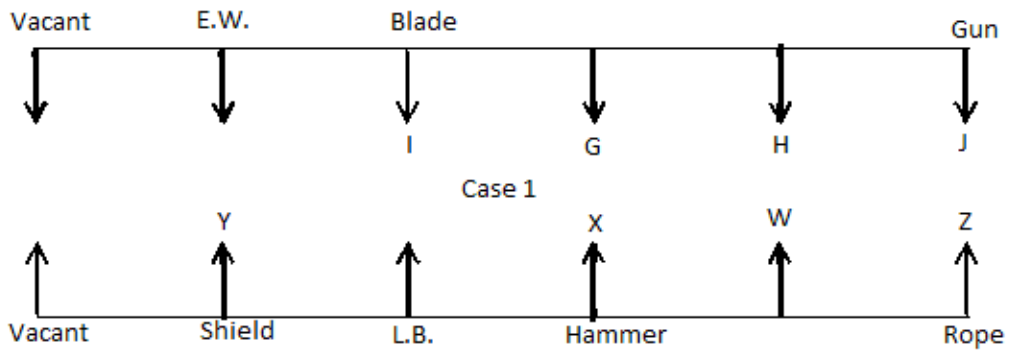
12. One of the immediate neighbours of W is sitting opposite to J.

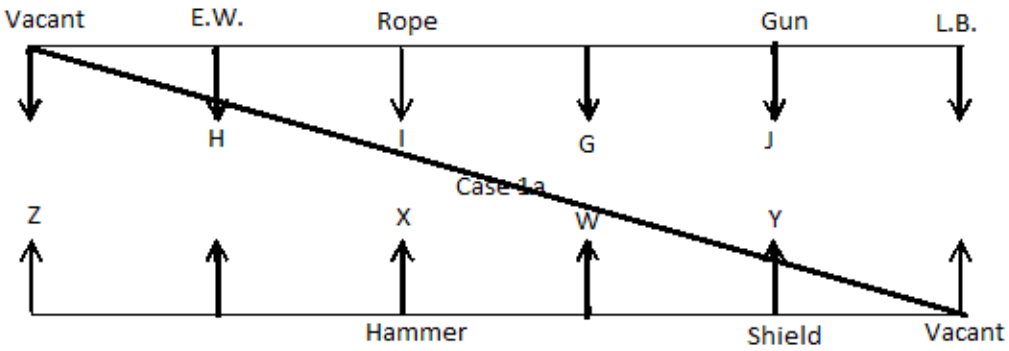
13. J uses gun.



14. The one who uses laser beam sits third to the left of the person who uses rope.

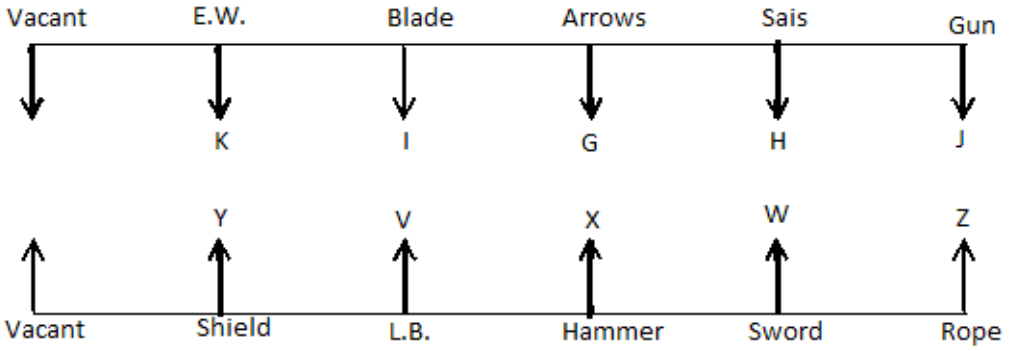
15. I uses blade (That means case 1a is ruled out).





16. The one who uses Sais sits immediate left of the person who uses arrows.

17. That means W uses sword, K uses elder wand and V uses laser beam.



So, H uses Sais.

(33-35) **Direction**: Study the following alphanumeric series carefully and answer the questions given below.

1 Z 6 H & R $ 4 Y Q % T ! 3 9 S I O 3 7 J L E U * K @ 3

STEP-I: The letters which are immediately preceded and immediately followed by a symbol are arranged at the end of the series in the reverse alphabetical order (They are arranged just after 3).
STEP-II: The numbers which are immediately preceded by the letter and immediately followed by the symbol are arranged between 9 and J in the increasing order.
STEP-III: The numbers which are immediately followed by letter interchanged its position with respect to the element just after it.

Note: All the steps are performed in order i.e I, II and III

33.How many letters are arranged at the end of the series in the step II?
one
Three
Four
Five
More than five

Solution:

Step I : 1 Z 6 H & $ 4 Y Q % ! 3 9 S I O 3 7 J L E U * @ 3 T R K
Step II: 1 Z 6 H & $ 4 Y Q % ! 3 9 S I O 3 7 J L E U * @ 3**T R K**(There is no Letter which is immediately preceded by a letter and immediately followed by a symbol)

34. Which among the following are the elements of the series which are second position from the left end and sixth position from the right end in step-III?

63
7#
1*
P6
6#

Solution:

Step I : 1 Z 6 H & $ 4 Y Q % ! 3 9 S I O 3 7 J L E U * @ 3 T R K
Step II: 1 Z 6 H & $ 4 Y Q % ! 3 9 S I O 3 7 J L E U * @ 3**T R K**(There is no Letter which is immediately preceded by a letter and immediately followed by a symbol)**.**
Step III:Z 1 H 6 & $ Y 4 Q % ! 3 S 9 I O 3 J 7 L E U * @ T 3 R K

35. How many symbols are immediately followed by numbers in step-I?

one
Three
Four
Five
Two

Solution:

Step I : 1 Z 6 H & $**4**Y Q % !**3**9 S I O 3 7 J L E U * @**3**T R K
Step II: 1 Z 6 H & $ 4 Y Q % ! 3 9 S I O 3 7 J L E U * @ 3 T R K (There is no Letter which is immediately preceded by a letter and immediately followed by a symbol)**.**
Step III:Z 1 H 6 & $ Y 4 Q % ! 3 S 9 I O 3 J 7 L E U * @ T 3 R K

(36-40) **Direction:** Study the following information carefully and answer the questions given below.

There are eight friends P, Q, R, S, T, U, V and W, who live in an eight-storey building. The ground floor is numbered one, and the topmost floor is numbered eight. Each of them is working in the different nationalized bank, via CUB, DCB, ICICI, IDBI, ING, PSB, UCO and SBI, but not necessarily in the same order.

There is only one floor between P and the floor on which the person that works in SBI. The person who works in SBI does not live on the floor numbered 1. S lives just below Q. The one who works in CUB lives on an even numbered floor and just above the floor on which the person who works in ING lives. The person who works in PSB lives on an even numbered floor but not on the 8th floor. Neither S nor W lives on the 1st floor. Only one person lives between the one who works in

UCO and S. P lives on an odd numbered floor and T lives just above P. Q lives on the fourth floor. Only two friends live between the one who works in PSB and P. U lives just below the one who works in ING. S works neither in ING nor in SBI. The person who works in ICICI Bank does not live on an odd numbered floor. V does not work in DCB. There are two floors between the floor on which W lives and the floor on which T lives. Only two persons live between the one who works in IDBI and the one who works in ICICI bank.

36.Who among the following works in DCB?
S
R
U
T
None of these

Solution:

Eight friends: P, Q, R, S, T, U, V and W.
Different nationalized bank: CUB, DCB, ICICI, IDBI, ING, PSB, UCO and SBI.
1) The person who works in PSB lives on an even numbered floor but not on the 8thfloor.
(There will be three possible cases)
2) Q lives on the fourth floor.
3) Neither S nor W lives on the 1stfloor.
4) S lives just below Q.
5) The person who works in SBI does not live on floor number 1.
Case I:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
3	S
2	PSB
1	~~S, W~~
	~~SBI~~

Case II:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
	PSB
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case III:

Floors	Persons and Banks
8	
7	
6	PSB
5	
4	Q
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

6) P lives on an odd numbered floor and T lives just above P.
7) Only two friends live between the one who works in PSB and P.
8) There are two floors between the floor on which W lives and the floor on which T lives.
(Combining all, Case I and III will be eliminated, we can further proceed with Case II)
(Now, there will be two possible Cases)
Case I:

Floors	Persons and Banks
8	
7	
6	
5	W
4	Q
	PSB
3	S
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	T
7	P
6	
5	W
4	Q
	PSB
3	S
2	
1	~~S, W~~
	~~SBI~~

9) The one who works in CUB lives on an even numbered floor and just above the floor on which the person who works in ING lives.
10) S works neither in ING nor SBI.
11) U lives just below the one who works in ING.
12) Only one person lives between the one who works in UCO and S.
(Combining all, there will be four possible Cases)
Case I:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~, UCO

Case III:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case IV:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~, UCO

13) The person who works in ICICI Bank does not live on an odd numbered floor.

14) There is only one floor between P and the floor on which the person that works in SBI.
15) The person who works in SBI does not live on floor numbered 1.
16) Only two persons live between the one who works in IDBI and the one who works in ICICI bank.
17) V does not work in DCB.
(Hence, V works in UCO bank and R works in DCB bank)
(Combining all, Case I, II and III will be eliminated, we can further proceed with Case IV)

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
	ICICI
5	W
	SBI
4	Q
	PSB
3	S
	IDBI
2	R
	DCB
1	~~S~~, ~~W~~, V
	~~SBI~~, UCO

Clearly, R works in DCB.

37. How many persons are there between T and Q?

One
Two
Three
Four
None of these

Solution:

Eight friends: P, Q, R, S, T, U, V and W.
Different nationalized bank: CUB, DCB, ICICI, IDBI, ING, PSB, UCO and SBI.
1) The person who works in PSB lives on an even numbered floor but not on the

8th floor.
(There will be three possible cases)
2) Q lives on the fourth floor.
3) Neither S nor W lives on the 1st floor.
4) S lives just below Q.
5) The person who works in SBI does not live on floor number 1.
Case I:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
3	S
2	PSB
1	~~S, W~~
	~~SBI~~

Case II:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
	PSB
3	S
2	
1	~~S, W~~
	~~SBI~~

Case III:

Floors	Persons and Banks
8	
7	
6	PSB
5	
4	Q
3	S
2	
1	~~S, W~~
	~~SBI~~

6) P lives on an odd numbered floor and T lives just above P.

7) Only two friends live between the one who works in PSB and P.
8) There are two floors between the floor on which W lives and the floor on which T lives.
(Combining all, Case I and III will be eliminated, we can further proceed with Case II)
(Now, there will be two possible Cases)
Case I:

Floors	Persons and Banks
8	
7	
6	
5	W
4	Q
	PSB
3	S
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	T
7	P
6	
5	W
4	Q
	PSB
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

9) The one who works in CUB lives on an even numbered floor and just above the floor on which the person who works in ING lives.
10) S works neither in ING nor SBI.
11) U lives just below the one who works in ING.
12) Only one person lives between the one who works in UCO and S.
(Combining all, there will be four possible Cases)
Case I:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~, UCO

Case III:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case IV:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~, UCO

13) The person who works in ICICI Bank does not live on an odd numbered floor.
14) There is only one floor between P and the floor on which the person that works in SBI.
15) The person who works in SBI does not live on floor numbered 1.
16) Only two persons live between the one who works in IDBI and the one who works in ICICI bank.
17) V does not work in DCB.
(Hence, V works in UCO bank and R works in DCB bank)
(Combining all, Case I, II and III will be eliminated, we can further proceed with Case IV)

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
	ICICI
5	W
	SBI
4	Q
	PSB
3	S
	IDBI
2	R
	DCB
1	~~S~~, ~~W~~, V
	~~SBI~~, UCO

Clearly, three persons are there between T and Q.

38. Who among the following lives on the topmost floor?

The one who works in CUB
The one who works in PSB
The one who works in ICICI
The one who works in DCB
None of these

Solution:

Eight friends: P, Q, R, S, T, U, V and W.
Different nationalized bank: CUB, DCB, ICICI, IDBI, ING, PSB, UCO and SBI.
1) The person who works in PSB lives on an even numbered floor but not on the 8th floor.
(There will be three possible cases)
2) Q lives on the fourth floor.
3) Neither S nor W lives on the 1st floor.
4) S lives just below Q.
5) The person who works in SBI does not live on floor number 1.
Case I:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
3	S
2	PSB
1	~~S, W~~
	~~SBI~~

Case II:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
	PSB
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case III:

Floors	Persons and Banks
8	
7	
6	PSB
5	
4	Q
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

6) P lives on an odd numbered floor and T lives just above P.
7) Only two friends live between the one who works in PSB and P.
8) There are two floors between the floor on which W lives and the floor on which T lives.
(Combining all, Case I and III will be eliminated, we can further proceed with Case II)
(Now, there will be two possible Cases)
Case I:

Floors	Persons and Banks
8	
7	
6	
5	W
4	Q
	PSB
3	S
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	T
7	P
6	
5	W
4	Q
	PSB
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

9) The one who works in CUB lives on an even numbered floor and just above the floor on which the person who works in ING lives.
10) S works neither in ING nor SBI.
11) U lives just below the one who works in ING.
12) Only one person lives between the one who works in UCO and S.
(Combining all, there will be four possible Cases)
Case I:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~, UCO

Case III:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case IV:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~, UCO

13) The person who works in ICICI Bank does not live on an odd numbered floor.

14) There is only one floor between P and the floor on which the person that works in SBI.
15) The person who works in SBI does not live on floor numbered 1.
16) Only two persons live between the one who works in IDBI and the one who works in ICICI bank.
17) V does not work in DCB.
(Hence, V works in UCO bank and R works in DCB bank)
(Combining all, Case I, II and III will be eliminated, we can further proceed with Case IV)

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
	ICICI
5	W
	SBI
4	Q
	PSB
3	S
	IDBI
2	R
	DCB
1	~~S~~, ~~W~~, V
	~~SBI~~, UCO

Clearly, the one who works in CUB lives on the topmost floor.

39. Which of the following combination(s) is/are true?

Floor no. 2 – S – IDBI
Floor no. 5 – U – SBI
Floor no. 1 – R – DCB
Floor no. 8 – T – CUB
None of these

Solution:

Eight friends: P, Q, R, S, T, U, V and W.
Different nationalized bank: CUB, DCB, ICICI, IDBI, ING, PSB, UCO and SBI.
1) The person who works in PSB lives on an even numbered floor but not on the

8th floor.
(There will be three possible cases)
2) Q lives on the fourth floor.
3) Neither S nor W lives on the 1st floor.
4) S lives just below Q.
5) The person who works in SBI does not live on floor number 1.
Case I:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
3	S
2	PSB
1	~~S, W~~
	~~SBI~~

Case II:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
	PSB
3	S
2	
1	~~S, W~~
	~~SBI~~

Case III:

Floors	Persons and Banks
8	
7	
6	PSB
5	
4	Q
3	S
2	
1	~~S, W~~
	~~SBI~~

6) P lives on an odd numbered floor and T lives just above P.

7) Only two friends live between the one who works in PSB and P.
8) There are two floors between the floor on which W lives and the floor on which T lives.
(Combining all, Case I and III will be eliminated, we can further proceed with Case II)
(Now, there will be two possible Cases)
Case I:

Floors	Persons and Banks
8	
7	
6	
5	W
4	Q
	PSB
3	S
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	T
7	P
6	
5	W
4	Q
	PSB
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

9) The one who works in CUB lives on an even numbered floor and just above the floor on which the person who works in ING lives.
10) S works neither in ING nor SBI.
11) U lives just below the one who works in ING.
12) Only one person lives between the one who works in UCO and S.
(Combining all, there will be four possible Cases)
Case I:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~, UCO

Case III:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case IV:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~, UCO

13) The person who works in ICICI Bank does not live on an odd numbered floor.
14) There is only one floor between P and the floor on which the person that works in SBI.
15) The person who works in SBI does not live on floor numbered 1.
16) Only two persons live between the one who works in IDBI and the one who works in ICICI bank.
17) V does not work in DCB.
(Hence, V works in UCO bank and R works in DCB bank)
(Combining all, Case I, II and III will be eliminated, we can further proceed with Case IV)

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
	ICICI
5	W
	SBI
4	Q
	PSB
3	S
	IDBI
2	R
	DCB
1	~~S~~, ~~W~~, V
	~~SBI~~, UCO

Clearly, Floor no. 8 – T – CUB is true.

40. P works in which of the following bank?

CUB
SBI
PSB
ING
None of these

Solution:

Eight friends: P, Q, R, S, T, U, V and W.
Different nationalized bank: CUB, DCB, ICICI, IDBI, ING, PSB, UCO and SBI.
1) The person who works in PSB lives on an even numbered floor but not on the 8th floor.
(There will be three possible cases)
2) Q lives on the fourth floor.
3) Neither S nor W lives on the 1st floor.
4) S lives just below Q.
5) The person who works in SBI does not live on floor number 1.
Case I:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
3	S
2	PSB
1	~~S, W~~
	~~SBI~~

Case II:

Floors	Persons and Banks
8	
7	
6	
5	
4	Q
	PSB
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case III:

Floors	Persons and Banks
8	
7	
6	PSB
5	
4	Q
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

6) P lives on an odd numbered floor and T lives just above P.
7) Only two friends live between the one who works in PSB and P.
8) There are two floors between the floor on which W lives and the floor on which T lives.
(Combining all, Case I and III will be eliminated, we can further proceed with Case II)
(Now, there will be two possible Cases)
Case I:

Floors	Persons and Banks
8	
7	
6	
5	W
4	Q
	PSB
3	S
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	T
7	P
6	
5	W
4	Q
	PSB
3	S
2	
1	~~S~~, ~~W~~
	~~SBI~~

9) The one who works in CUB lives on an even numbered floor and just above the floor on which the person who works in ING lives.
10) S works neither in ING nor SBI.
11) U lives just below the one who works in ING.
12) Only one person lives between the one who works in UCO and S.
(Combining all, there will be four possible Cases)
Case I:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~

Case II:

Floors	Persons and Banks
8	CUB
7	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	T
1	~~S~~, ~~W~~, P
	~~SBI~~, UCO

Case III:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
	UCO
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~

Case IV:

Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
5	W
4	Q
	PSB
3	S
	~~ING~~, ~~SBI~~
2	
1	~~S~~, ~~W~~
	~~SBI~~, UCO

13) The person who works in ICICI Bank does not live on an odd numbered floor.

14) There is only one floor between P and the floor on which the person that works in SBI.
15) The person who works in SBI does not live on floor numbered 1.
16) Only two persons live between the one who works in IDBI and the one who works in ICICI bank.
17) V does not work in DCB.
(Hence, V works in UCO bank and R works in DCB bank)
(Combining all, Case I, II and III will be eliminated, we can further proceed with Case IV)

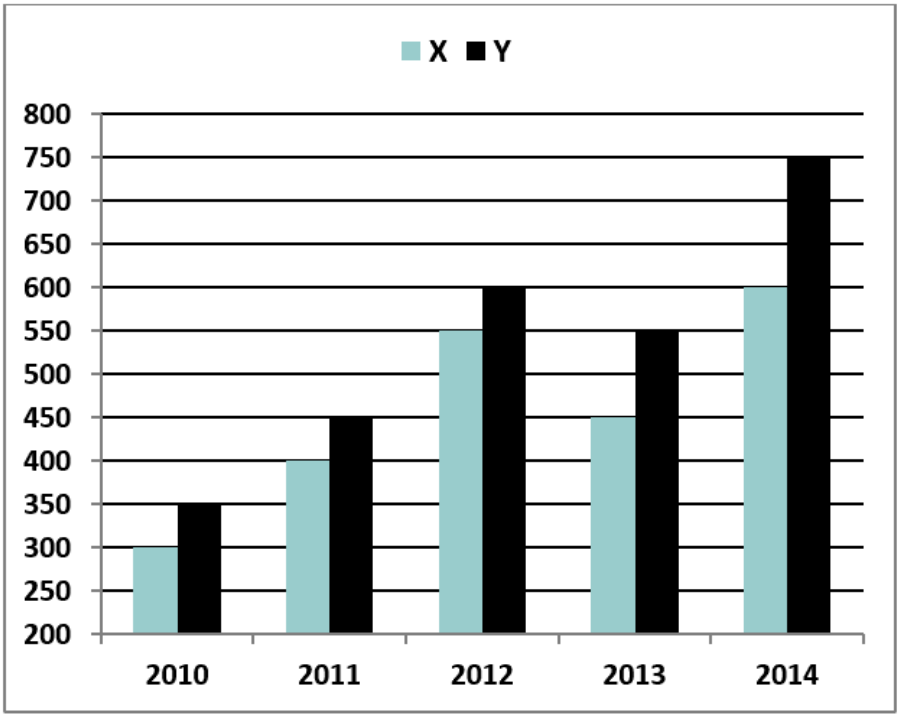
Floors	Persons and Banks
8	T
	CUB
7	P
	ING
6	U
	ICICI
5	W
	SBI
4	Q
	PSB
3	S
	IDBI
2	R
	DCB
1	~~S~~, ~~W~~, V
	~~SBI~~, UCO

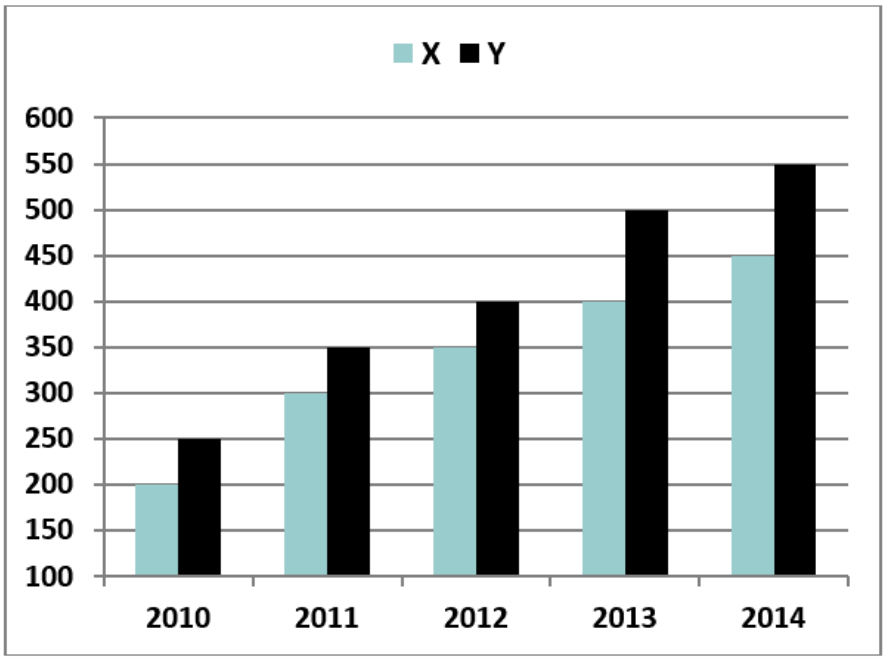
Clearly, P works in ING.

Numerical ability

(41-45) **Direction:** Study the graphs carefully to answer the following questions.

The following first bar graph shows the import (in tonnes) of two companies (X and Y) in different years and the second bar graph shows the export (in tonnes) of the same companies in the same years.





41.Total import of company X in the years 2010 and 2011 together is what percent more than the total export of the same company in the years 2010 and 2011?

40%
20%

60%
25%
30%

Solution:

Total import of company X in the years 2010 and 2011 = 300 + 400 = 700 tonnes

Total export of company X in the years 2010 and 2011 = 200 + 300 = 500 tonnes

Required percentage = $\frac{700 - 500}{500} \times 100 = 40\%$

42. What is the ratio of import of companies X and Y in the years 2011 and 2012 together to the total export of both companies in the same years?

7 : 5
10 : 7
3 : 4
4 : 3
None of these

Solution:

Required ratio = $\frac{(400 + 450) + (550 + 600)}{300 + 350 + 350 + 400}$ = $\frac{2000}{1400}$ = 10 : 7

43. What is the difference (in tonnes) between average of total import and average of total export for company X in all the given years?

140
80
220
120
240

Solution:

Total import of company X in all the given years

= $\frac{300 + 400 + 550 + 450 + 600}{5}$ = 460 tonnes

Total import of company X in all the given years

$= \frac{200 + 300 + 350 + 400 + 450}{5}$ = 340 tonnes

Required difference = 460 − 340 = 120 tonnes

44. What is the total import of company Y in all the given years?

1700 tonnes
2700 tonnes
3700 tonnes
2100 tonnes
None of these

Solution:

Required answer = 350 + 450 + 600 + 550 + 750 = 2700 tonnes

45. Total import in 2013 and 2014 together is what percent of the total export in the same years together?

$133\frac{13}{19}\%$
$143\frac{13}{19}\%$
$123\frac{6}{19}\%$
$113\frac{13}{19}\%$
$123\frac{13}{19}\%$

Solution:

Required answer = $\frac{1000 + 1350}{900 + 1000} \times 100 = 123\frac{13}{19}\%$

46. **Direction:** What should come in place of the question mark '?' in the following number series?

5, 6, 45, 126, 405, 1206, ?
4391

4591
3598
3645
4310

Solution:

Pattern of the series is:

$5 \times 3 - 3^2 = 6$

$6 \times 3 + 3^3 = 45$

$45 \times 3 - 3^2 = 126$

$126 \times 3 + 3^3 = 405$

$405 \times 3 - 3^2 = 1206$

$1206 \times 3 + 3^3 = 3645$

47. **Direction:** What should come in place of the question mark '?' in the following number series?

6, 14, 26, 54, 106, 214,?
425
430
428
424
426

Solution:

Pattern of the series is:

$6 \times 2 + 2 = 14$

$14 \times 2 - 2 = 26$

$26 \times 2 + 2 = 54$

$54 \times 2 - 2 = 106$

$106 \times 2 + 2 = 214$

$214 \times 2 - 2 = 426$

48. **Direction:** What should come in place of the question mark '?' in the following number series?

12, 61, 36, 85, 60, 109, ?
84
85
86
80
82

Solution:

Pattern of the series is:

$12 + 7^2 = 61$

$61 - 5^2 = 36$

$36 + 7^2 = 85$

$85 - 5^2 = 60$

$60 + 7^2 = 109$

$109 - 5^2 = 84$

49. **Direction:** What should come in place of the question mark '?' in the following number series?

4, 5, 19, 82, 377, ?
1968
1866
1950
1966
1566

Solution:

Pattern of the series is:

$4 \times 1 + 1^2 = 5$

$5 \times 2 + 3^2 = 19$

$19 \times 3 + 5^2 = 82$

$82 \times 4 + 7^2 = 377$

$377 \times 5 + 9^2 = 1966$

50. **Direction:** What should come in place of the question mark '?' in the following number series?

16, 28, 44, 64, 88, ?
119
117
120
118
116

Solution:

Pattern of the series is:

$16 + 2^2 \times 3 = 28$

$28 + 2^2 \times 4 = 44$

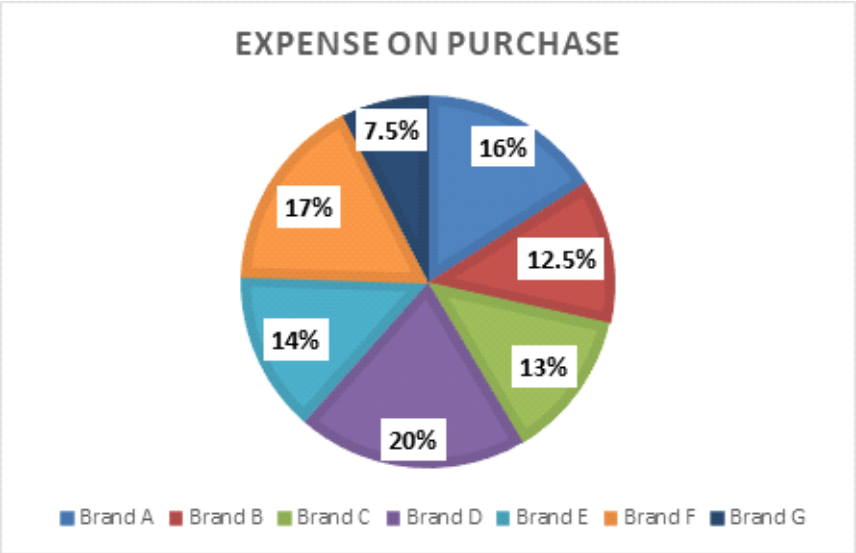
$44 + 2^2 \times 5 = 64$

$64 + 2^2 \times 6 = 88$

$88 + 2^2 \times 7 = 116$

(51-55) **Direction:** Study the pie chart and table carefully to answer the following questions.

A retailer purchased shirts of 7 brands, namely, Brand A, Brand B, Brand C, Brand D, Brand E, Brand F and Brand G. The below pie chart gives the distribution of the purchase of shirts of these brands:



Total purchase cost = Rs 30 lakh

The below table shows the purchase price per shirt of the brands and the percent profit made on selling them. The cost price and selling price of each shirt of all brands is constant. All shirts purchased by him were sold.

Brand	Purchase price per shirt	Profit %
Brand A	400	15%
Brand B	500	45%
Brand C	650	40%
Brand D	750	60%
Brand E	840	35%
Brand F	510	50%
Brand G	450	30%

51.What is the difference between the selling price of brand B and brand G shirt?

Rs 180
Rs 160
Rs 150
Rs 140
Rs 120

Solution:

From the pie chart we get:

Brand	Expense on purchase
Brand A	480000
Brand B	375000
Brand C	390000
Brand D	600000
Brand E	420000
Brand F	510000
Brand G	225000

Number of shirts purchased = Total purchase cost ÷ Purchase price per shirt

Brand	Expense on purchase	Purchase price per shirt	No of shirts
Brand A	480000	400	1200
Brand B	375000	500	750
Brand C	390000	650	600
Brand D	600000	750	800
Brand E	420000	840	500
Brand F	510000	510	1000
Brand G	225000	450	500

Selling price of the shirts are:

Brand	Selling price
Brand A	460
Brand B	725
Brand C	910
Brand D	1200
Brand E	1134
Brand F	765
Brand G	585

Selling price of brand B shirt = Rs 725

Selling price of brand G shirt = Rs 585

Difference = 725 – 585 = Rs 140

52. How many shirts of brand D were purchased?

600
750
800
1000
1200

Solution:

800 shirts of brand D were purchased.

53. What is the overall profit of the retailer?

40.88%
42.5%
45.45%
36.36%

38.89%

Solution:

From the pie chart we get:

Brand	Expense on purchase
Brand A	480000
Brand B	375000
Brand C	390000
Brand D	600000
Brand E	420000
Brand F	510000
Brand G	225000

Number of shirts purchased = Total purchase cost ÷ Purchase price per shirt

Brand	Expense on purchase	Purchase price per shirt	No of shirts
Brand A	480000	400	1200
Brand B	375000	500	750
Brand C	390000	650	600
Brand D	600000	750	800
Brand E	420000	840	500
Brand F	510000	510	1000
Brand G	225000	450	500

Selling price of the shirts are:

Brand	Selling price
Brand A	460
Brand B	725
Brand C	910
Brand D	1200
Brand E	1134
Brand F	765
Brand G	585

Brand	Selling price/shirt	No of shirts	Selling price
Brand A	460	1200	552000
Brand B	725	750	543750
Brand C	910	600	546000
Brand D	1200	800	960000
Brand E	1134	500	567000
Brand F	765	1000	765000
Brand G	585	500	292500
Total			4226250

Profit = (4226250 – 3000000)/3000000 x 100 = 40.88%

54. Which brand generated the maximum revenue?

Brand E
Brand F

Brand A
Brand C
Brand D

Solution:

From the pie chart we get:

Brand	Expense on purchase
Brand A	480000
Brand B	375000
Brand C	390000
Brand D	600000
Brand E	420000
Brand F	510000
Brand G	225000

Number of shirts purchased = Total purchase cost ÷ Purchase price per shirt

Brand	Expense on purchase	Purchase price per shirt	No of shirts
Brand A	480000	400	1200
Brand B	375000	500	750
Brand C	390000	650	600
Brand D	600000	750	800
Brand E	420000	840	500
Brand F	510000	510	1000
Brand G	225000	450	500

Selling price of the shirts are:

Brand	Selling price
Brand A	460
Brand B	725
Brand C	910
Brand D	1200
Brand E	1134
Brand F	765
Brand G	585

Brand	Selling price/shirt	No of shirts sold	Revenue
Brand A	460	1200	552000
Brand B	725	750	543750
Brand C	910	600	546000
Brand D	1200	800	960000
Brand E	1134	500	567000
Brand F	765	1000	765000
Brand G	585	500	292500

Brand D generated the maximum revenue.

55. Which brand generated the minimum absolute profit?

Brand A
Brand G
Brand E
Brand C
Brand B

Solution:

From the pie chart we get:

Brand	Expense on purchase
Brand A	480000
Brand B	375000
Brand C	390000
Brand D	600000
Brand E	420000
Brand F	510000
Brand G	225000

Number of shirts purchased = Total purchase cost ÷ Purchase price per shirt

Brand	Expense on purchase	Purchase price per shirt	No of shirts
Brand A	480000	400	1200
Brand B	375000	500	750
Brand C	390000	650	600
Brand D	600000	750	800
Brand E	420000	840	500
Brand F	510000	510	1000
Brand G	225000	450	500

Selling price of the shirts are:

Brand	Selling price
Brand A	460
Brand B	725
Brand C	910
Brand D	1200
Brand E	1134
Brand F	765
Brand G	585

Brand	Selling price	Purchase price	Difference	No. of shirts	Profit
Brand A	460	400	60	1200	72000
Brand B	725	500	225	750	168750
Brand C	910	650	260	600	156000
Brand D	1200	750	450	800	360000
Brand E	1134	840	294	500	147000
Brand F	765	510	255	1000	255000
Brand G	585	450	135	500	67500

Brand G has the minimum profit

56. **Direction:** Given below are two quantities named I and II. Based on the given information, you have to determine the relation between the two quantities. You should use the given data and your knowledge of Mathematics to choose among the possible answers.

Quantity I: Ranjeet drove from home to his office at 75 miles per hour. While returning home he drove one third way along the same route at a speed of 30 miles per hour and then took a bypass road which increased his driving distance by 15 miles, but allowed him to drive at 60 miles per hours along this bypass road. If his return journey took 45 minutes more than his onward journey, then the total distance travelled by him is:

Quantity II: 0.005625×10^4

Quantity I > Quantity II
Quantity I < Quantity II
Quantity I $\geq$ Quantity II
Quantity I $\leq$ Quantity II
Quantity I = Quantity II or No relation

Solution:

Quantity I:

$$\frac{d}{3\times 30}+\frac{\frac{2d}{3}+15}{60}-\frac{d}{75}=\frac{45}{60}$$

$$\frac{d}{90}+\frac{d}{90}+\frac{1}{4}-\frac{d}{75}=\frac{3}{4}$$

$$\frac{d}{45}-\frac{d}{75}=\frac{3}{4}-\frac{1}{4}$$

$$\frac{5d-3d}{225}=\frac{1}{2}$$

$$=>\frac{2d}{225}=\frac{1}{2}=>d=\frac{225}{4}=56.25$$

Quantity II:

0.005625×10^4 = 56.25

Quantity I = Quantity II

57. **Direction:** Given below are two quantities named I and II. Based on the given information, you have to determine the relation between the two quantities. You should use the given data and your knowledge of Mathematics to choose among the possible answers.

A and B are two taps which can fill a tank in 20 minutes and 40 minutes, respectively, while there is another tap C which can empty the tank in 60 minutes.

Quantity I: What is the time taken by tap A to fill the tank of double capacity as the given tank while there are two leakage taps of same efficiency as that of tap C?

Quantity II: What is the time taken by tap B to fill the tank while tap C is open as well?

Quantity I > Quantity II
Quantity I < Quantity II
Quantity I ≥ Quantity II
Quantity I ≤ Quantity II
Quantity I = Quantity II or No relation

Solution:

Let the total capacity of the tank be LCM (20, 40 and 60) = 120 units

Number of units of water filled by tap A in one minute = 6 units

Number of units of water filled by tap B in one minute = 3 units

Number of units of water filled by tap C in one minute = 2 units

Quantity I:

Number of units of water filled in one minute if tap A and two tap C is opened
$= 6 - (2 \times 2) = 2\ units$

Therefore, required time = $\frac{2\times120}{2} = 120\ minutes$

Quantity II:

Number of units of water filled in one minute if tap B and tap C is opened
$= 3 - 2 = 1\ units$

Therefore, required time = $\frac{120}{1} = 120\ minutes$

So, Quantity I $=$ Quantity II

So option (E) is the correct answer.

58. **Direction:** Given below are two quantities named I and II. Based on the given information, you have to determine the relation between the two quantities. You should use the given data and your knowledge of Mathematics to choose among the possible answers.

Quantity I: The average of three numbers a, b, and c is 28. b is twice of a and c is half of a. The value of b

Quantity II: The value of a, if $(a-4)^2$ = 400 and a > 0

Quantity I > Quantity II
Quantity I < Quantity II
Quantity I ≥ Quantity II
Quantity I ≤ Quantity II
Quantity I = Quantity II or No relation

Solution:

Quantity I:

According to question:

$(a+b+c) = 28 \times 3 = 84$

Also, $b = 2a, and\ a = 2c$

So, $a + 2a + \frac{a}{2} = 84$

$a = 24$

So, $b = 24 \times 2 = 48$

Quantity II:

$(a-4)^2 = 400$

$(a-4) = 20$

$a = 24$

So, Quantity I $>$ Quantity II

So option (A) is the correct answer.

59. **Direction:** Given below are two quantities named I and II. Based on the given information, you have to determine the relation between the two quantities. You should use the given data and your knowledge of Mathematics to choose among the possible answers.

Quantity I: A class has 49 students. The average marks obtained by the boys were 65, while the average marks obtained by the girls were 72 . If the overall average of marks obtained by the students is 70, then find the number of boys in the class.

Quantity II: The average marks obtained by 'x' boys is 62. If the total mark obtained by all the boys together is 806, then find the value of 'x'.

Quantity I > Quantity II
Quantity I < Quantity II
Quantity I ≥ Quantity II
Quantity I ≤ Quantity II
Quantity I = Quantity II or No relation

Solution:

Quantity I:

Let the number of boys be x

So, the number of girls = 49 – x

According to the question:

$49 \times 70 = 65x + 72(49 - x)$

$3430 = 65x + 3528 - 72x$

$7x = 98$

$x = 14$

So, the number of boys in the class = 14

Quantity II:

$x = \frac{806}{62} = 13$

So, Quantity I $>$ Quantity II

So option (A) is the correct answer.

60. **Direction:** Given below are two quantities named I and II. Based on the given information, you have to determine the relation between the two quantities. You should use the given data and your knowledge of Mathematics to choose among the possible answers.

Quantity I: A batsman scored 144 runs in a match consisting of 10 players in a team, which is 'x'% of the total runs scored in the match by the team. If the average runs scored by each of the ten players are 32, then find the value of 'x'.

Quantity II: A student scored 'x'% marks in his annual exam of five subjects. If the total marks obtained by him are 220, then find the value of 'x'. [Note: maximum marks of each subject is 100 marks]

Quantity I > Quantity II
Quantity I < Quantity II
Quantity I $\geq$ Quantity II
Quantity I $\leq$ Quantity II
Quantity I = Quantity II or No relation

Solution:

Quantity I:

Total runs scored by all players = $32 \times 10 = 320$

Required value of 'x' = $\frac{144}{320} \times 100 = 45\%$

Quantity II:

Marks obtained by the students = 220

Total maximum marks = $5 \times 100 = 500$

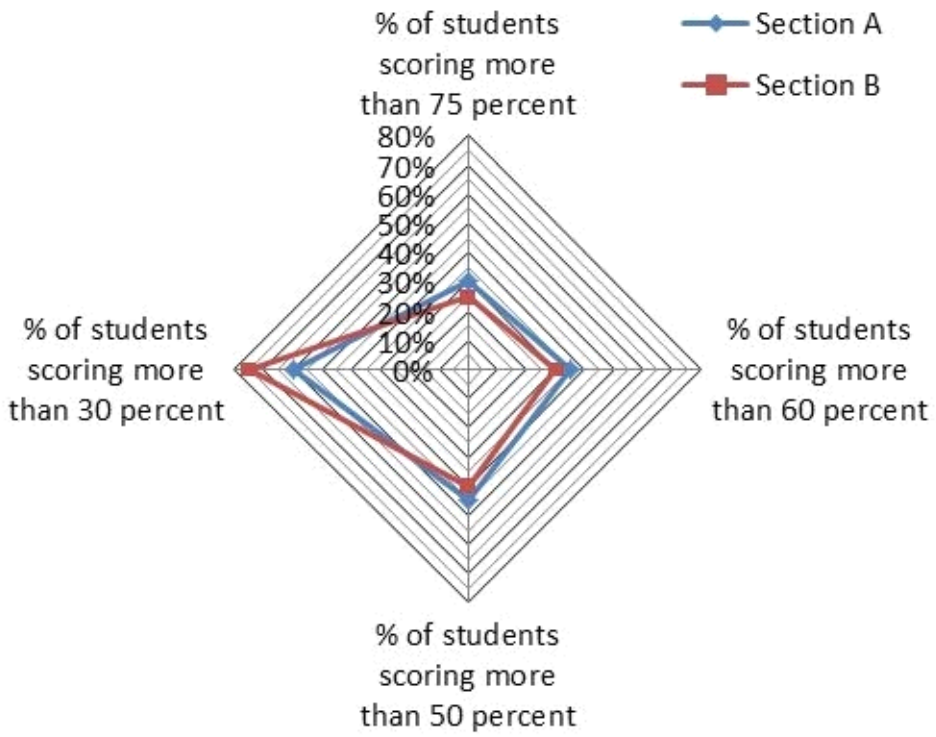
Required value of 'x' = $\frac{220}{500} \times 100 = 44\%$

So, Quantity I $>$ Quantity II

So option (A) is the correct answer.

(61-65) **Direction**: Study the following spider-chart & answer the questions given below.

The chart shows the % of students in two sections A & B scoring in certain range of percentages with respect to the total marks in Physical sciences in an exam.



Note: 1) Total students in Class A = 300
& Total students in Class B = 400

2) Scoring not more than 30% marks is considered 'FAIL'.

61.Find the difference between the number of students who failed from section A & section B?

40
30
20
80
None of these

Solution:

Failed students in section A = those who have not scored more than 30% = (100-60)%= 40% of 300 = 120

Failed students in section B = those who have not scored more than 30% = (100-75)%= 25% of 400 = 100

So, Reqd. difference = 120-100 = 20

62. What is the difference between the numbers of students who got more than 50% but not more than 75% marks from section A & section B?

9
45
25
15
55

Solution:

Reqd. Difference = (40 – 25)% of 400 – (45 – 30)% of 300 = 60 – 45 = 15

63. Number of students scoring more than 30% but not more than 60% in the section A is approximately what percentage more/less with respect to the number of students scoring more than 50% but not more than 75% in the same section?

45% less
55% less
66% more
70% more
Can't be determined

Solution:

Reqd. % = $\frac{(60\%-35\%)-(45\%-30\%)}{45\%-30\%} \times 100$ = 66% more (approx..)

64. What % of students failed from section A & B overall?

$31\frac{3}{7}\%$
$55\frac{4}{5}\%$
20%
66%

$82\frac{1}{2}\%$

Solution:

No. of failed students from A = 40% of 300 = 120

No. of failed students from B = 25% of 400 = 100

So, reqd. % = $\frac{220}{700} \times 100 = 31\frac{3}{7}\%$

65. What is the average number of students which passed from section A & section B both?

160
240
290
450
160

Solution:

Reqd. Avg. = $\frac{60\%\ of\ 300 + 75\%\ of\ 400}{2} = 240$

66. Speed of a boat in still water is 37.5% less than the speed of boat in downstream. If the boat can travel a distance of 864 km upstream in 3 hours. and 36 minutes, then find the time taken by the boat to cover a distance of 1575 km in still water.

4.25 hours
2.625 hours
5.225 hours
8.625 hours
4 hours

Solution:

Let speed of boat in downstream = ‘x’ km/h

Speed of boat in still water = 0.625x km/h

Speed of boat in upstream = 0.625x – 0.375x = 0.25x km/h

3 hours and 36 minutes = 3 + $\frac{36}{60}$ = 3.6 hours.

Speed = $\frac{\text{Distance}}{\text{Time}}$

0.25x = $\frac{864}{3.6}$ = 240

x = 960 km/h

Speed of boat in still water = 0.625 × 960 = 600 km/h

Required time = $\frac{1575}{600}$ = 2.625 hours.

67. Saraswati invested a certain sum of money in a bank offering simple interest at the rate of 12% per annum for two years. Laxmi invested Rs. 3000 more than that of Saraswati's investment in another bank offering compound interest at the rate of 12% per annum for two years. Find the average interest earned by Saraswati and Laxmi after two years, if the difference between the interests earned by them is Rs. 936.

Rs. 3246
Rs. 3348
Rs. 3146
Rs. 3324
Rs. 3212

Solution:

Let the amount invested by Saraswati be Rs. a

Interest earned by Saraswati after two years = (a × 0.12 × 2) = Rs. 0.24a

Amount invested by Laxmi = Rs. (a + 3000)

Interest earned by Laxmi = (a + 3000) × $[(1 + 0.12)^2 – 1]$ = (a + 3000) × 0.2544 = Rs. (0.2544a + 763.2)

Using the data provided in the question, we get

0.2544a + 763.2 – 0.24a = 936

⇒ 0.0144a = 172.8

⇒ a = 12000

So, the interest earned by Saraswati = 0.24 × 12000 = Rs. 2880

Interest earned by Laxmi = 0.2544 × 12000 + 763.2 = 3052.8 + 763.2 = Rs. 3816

∴ Average interest earned by Saraswati and Laxmi = $\frac{2880+3816}{2}$ = Rs. 3348

Hence, option B is correct.

68. A person goes to his office in an auto rickshaw and returns from his office in his friend's car. The average speed of Auto rickshaw is ¼ th of the average speed of the car. If his average speed during the whole trip (i.e. one round) is 24 kmph then what is the speed of the Auto rickshaw that goes to his office?

18 km/h
12 km/h
15 km/h
16 km/h
20 km/h

Solution:

Let speed of auto rickshaw be x kmph
⇒ speed of car = 4x kmph
Average speed = $2 \times x \times \frac{4x}{x+4x}$ = 24 kmph
⇒ x = 15 kmph

69. In a town with population of 4500, the ratio of males to females is 3: 2 and the ratio of females to children is 4: x. In election of Nagar – Palika , two candidates are there, children aren't allowed to vote and 10% of the eligible population didn't cast their vote. If the winner candidate won by 400 votes and the runner up candidate got 1150 votes, then find the value of 'x'.
[Note: Total population of village = Male + Female + Children]

1
2
3

4
5

Solution:

Ratio of Male: Female: children = 3x2: 2x2: x = 6: 4: x
Number of children in town = x/(10+x) x 4500 = 4500x/(10+x)

Number of people eligible to vote = Number of males and females = 10/(10+x) x 4500 = 45000/(10+x)

Number of people who didn't cast their vote = 0.1 x 45000 / (10+x) = 4500/(10+x)

According to question
According to question

45000/(10+x) – 4500/(10+x) = 1150+(1150+400)
40500/(10+x) = 2700
x = 5
So option (e) is the correct answer.

70. Pipe P can fill a tank in 40 hours, Pipe Q in 50 hours but pipe R can empty a full tank in 60 hours. Starting with P, followed by Q and R each pipe opens alternatively for two hours. till the tank gets filled up completely. In how many hours tank will be filled completely?

104 hours and 32 minutes
102 hours 42 minutes
103 hours 28 minutes
112 hours 12 minutes
None of these

Solution:

Let the total capacity of the tank be 600 liters. (LCM of 40, 50 and 60)

Now,

Efficiency of P = $\frac{600}{40} = 15$ liter/hr

Efficiency of Q = $\frac{600}{50} = 12$ liter/hr

Efficiency of R = $\frac{600}{60} = 10$ liter/hr

In 6 hours, total of 34 liters will be filled by all the three pipes.

Required time= $102 + \frac{22}{15} = 103$ hours 28 minutes.

(71-75) **Direction**: Study the following information carefully and answer the questions that follow.

There are three baskets X, Y & Z and each contains three different fruits.

Basket X contains n strawberries and m oranges. Number of strawberries in basket X is 6 less than the number of oranges. If Raushan select one fruit, then the probability of getting a mango is $\frac{1}{6}$. Value of n is one third less than that of m.

Number of strawberries in basket Y is three times of number of mangoes in basket X. If Arpit is selecting two fruits at random then the probability that both are oranges is $\frac{22}{551}$. Total number of fruits in basket Y is 58.

In basket Z, the number of oranges is 50% more than the number of strawberries and number of strawberries is one fifth more than number of mangoes in that basket. If Mansi is selecting two fruits at random then the probability that both are strawberries is $\frac{11}{130}$.

Total number of strawberries in basket X and Y together is what percentage more or less than number of oranges in basket Y and Z together?

2%
5%
10%
0%
6%

Solution:

Basket X:

$n = m - 6$ .....(i)

And $n = \frac{2}{3}m$.....(ii)

From (i) and (ii)

n = 12 and m = 18

Now, let the number of mangoes be 'b'

Then,

$$\frac{b}{30+b} = \frac{1}{6}$$

⇒ b = 6

Number of mangoes = 6

Number of strawberries = 12

Number of oranges = 18

Basket Y:

Number of strawberries in basket Y = $3 \times 6 = 18$

Let number of oranges be r.

Then, number of mangoes = 58 – (18 + r)

ATQ,

$$\frac{{}^{r}C_2}{{}^{58}C_2} = \frac{55}{551}$$

$$\Rightarrow \frac{r(r-1)\times 2}{2 \times 58 \times 57} = \frac{22}{551}$$

$$\Rightarrow \frac{r(r-1)}{6} = 22$$

⇒ $r^2 - r = 132$

⇒ $r^2 - r - 132 = 0$

⇒ $r^2 - 12r + 11r - 132 = 0$

⇒ r (r – 12) + 11 (r – 12) = 0

⇒ r = 12.

∴ Number of mangoes = 58 – (18 + 12) = 28

Number of oranges = 12.

Basket Z:

Let the number of mangoes be 5x

Then, number of strawberries = $\frac{6}{5} \times 5x$ = 6x

Number of oranges = $\frac{150 \times 6x}{100}$ = 9x

Number of fruits in basket Z = 5x + 6x + 9x = 20x

ATQ,

$\frac{{}^{6x}C_2}{{}^{20x}C_2} = \frac{11}{130}$

$\Rightarrow \frac{6x(6x-1)}{20x(20x-1)} = \frac{11}{130}$

$\Rightarrow \frac{3(6x-1)}{10(20x-1)} = \frac{11}{130}$

⇒ 234x – 39 = 220x – 11

⇒ 14x = 28

⇒ $x = 2$

Number of mangoes = 5×2 = 10

Number of strawberries = 6×2 = 12

Number of oranges = 9×2 = 18

Baskets / Fruits	X	Y	Z
Strawberry	12	18	12
Orange	18	12	18
Mangoes	6	28	10

Required percentage = $\frac{(12+18)-(12+18)}{(12+18)} \times 100 = 0\%$

72. Number of fruits in basket P is $\frac{13}{10}$ of number of fruits in basket Z and fruits are of three same types as above and out of which mangoes are equal to average of strawberries in all the three given baskets (X, Y & Z). If the probability of selecting

an orange from basket P is $\frac{6}{13}$ then number of strawberries in basket P is what percentage of the total number of fruits of basket X?

$28\frac{8}{9}\%$
$38\frac{8}{9}\%$
$38\frac{1}{9}\%$
27 %
$34\frac{8}{9}\%$

Solution:

Basket X:

$n = m - 6$ .....(i)

And $n = \frac{2}{3}m$.....(ii)

From (i) and (ii)

n = 12 and m = 18

Now, let the number of mangoes be 'b'

Then,

$$\frac{b}{30 + b} = \frac{1}{6}$$

⇒ b = 6

Number of mangoes = 6

Number of strawberries = 12

Number of oranges = 18

Basket Y:

Number of strawberries in basket Y = $3 \times 6 = 18$

Let number of oranges be r.

Then, number of mangoes = 58 – (18 + r)

ATQ,

$$\frac{{}^{r}C_2}{{}^{58}C_2} = \frac{55}{551}$$

$\Rightarrow \frac{r(r-1)\times 2}{2\times 58\times 57} = \frac{22}{551}$

$\Rightarrow \frac{r(r-1)}{6} = 22$

$\Rightarrow r^2 - r = 132$

$\Rightarrow r^2 - r - 132 = 0$

$\Rightarrow r^2 - 12r + 11r - 132 = 0$

$\Rightarrow r(r - 12) + 11(r - 12) = 0$

$\Rightarrow r = 12.$

∴ Number of mangoes = 58 – (18 + 12) = 28

Number of oranges = 12.

Basket Z:

Let the number of mangoes be 5x

Then, number of strawberries = $\frac{6}{5} \times 5x$ = 6x

Number of oranges = $\frac{150 \times 6x}{100}$ = 9x

Number of fruits in basket Z = 5x + 6x + 9x = 20x

ATQ,

$\frac{{}^{6x}C_2}{{}^{20x}C_2} = \frac{11}{130}$

$\Rightarrow \frac{6x(6x-1)}{20x(20x-1)} = \frac{11}{130}$

$\Rightarrow \frac{3(6x-1)}{10(20x-1)} = \frac{11}{130}$

$\Rightarrow 234x - 39 = 220x - 11$

$\Rightarrow 14x = 28$

$\Rightarrow x = 2$

Number of mangoes = 5×2 = 10

Number of strawberries = 6×2 = 12

Number of oranges = 9×2 = 18

Baskets / Fruits	X	Y	Z
Strawberry	12	18	12
Orange	18	12	18
Mangoes	6	28	10

Number of fruits in basket P = $40 \times \frac{13}{10} = 52$

Number of mangoes in basket P = $\frac{1}{3}(12 + 18 + 12) = 14$

Let the number of oranges in basket P be p.

ATQ

$$\frac{p}{52} = \frac{6}{13}$$

⇒ p = 24

Number of strawberries in basket P = 52 - (14 + 24) = 14

Required % = $\frac{14}{36} \times 100\% = 38\frac{8}{9}\%$

73. What is the ratio of difference between $\frac{3}{8}$ of number of fruits in basket Z and averages of number of mangoes in all three baskets taken together to the number of oranges in basket Y?

$1 : 18$
$2 : 27$
$1 : 36$
$7 : 36$
$4 : 3$

Solution:

Basket X:

$n = m - 6$ .....(i)

And $n = \frac{2}{3}m$.....(ii)

From (i) and (ii)

n = 12 and m = 18

Now, let the number of mangoes be 'b'

Then,

$$\frac{b}{30+b} = \frac{1}{6}$$

⇒ b = 6

Number of mangoes = 6

Number of strawberries = 12

Number of oranges = 18

Basket Y:

Number of strawberries in basket Y = $3 \times 6 = 18$

Let number of oranges be r.

Then, number of mangoes = 58 – (18 + r)

ATQ,

$$\frac{{}^{r}C_2}{{}^{58}C_2} = \frac{55}{551}$$

$$\Rightarrow \frac{r(r-1)\times 2}{2 \times 58 \times 57} = \frac{22}{551}$$

$$\Rightarrow \frac{r(r-1)}{6} = 22$$

⇒ $r^2 - r = 132$

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⇒ $r^2 - 12r + 11r - 132 = 0$

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∴ Number of mangoes = 58 – (18 + 12) = 28

Number of oranges = 12.

Basket Z:

Let the number of mangoes be 5x

Then, number of strawberries = $\frac{6}{5} \times 5x$ = 6x

Number of oranges = $\frac{150 \times 6x}{100}$ = 9x

Number of fruits in basket Z = 5x + 6x + 9x = 20x

ATQ,

$\frac{{}^{6x}C_2}{{}^{20x}C_2} = \frac{11}{130}$

$\Rightarrow \frac{6x(6x-1)}{20x(20x-1)} = \frac{11}{130}$

$\Rightarrow \frac{3(6x-1)}{10(20x-1)} = \frac{11}{130}$

⇒ 234x – 39 = 220x – 11

⇒ 14x = 28

⇒ $x = 2$

Number of mangoes = 5×2 = 10

Number of strawberries = 6×2 = 12

Number of oranges = 9×2 = 18

Baskets / Fruits	X	Y	Z
Strawberry	12	18	12
Orange	18	12	18
Mangoes	6	28	10

Difference between $\frac{3}{8}$ of number of fruits in basket Z and averages of number of mangoes in all three baskets taken together = $\frac{3}{8} \times (12 + 18 + 10) - \frac{1}{3}(6 + 28 + 10) = 15 - \frac{44}{3} = \frac{1}{3}$

Required ratio = $\frac{\frac{1}{3}}{12} = 1 : 36$

74. What is the difference between total number of fruits in basket X and Y taken together and total number of fruits in basket Z?

54
64
36
40
44

Solution:

Basket X:

$n = m - 6$ .....(i)

And $n = \frac{2}{3}m$.....(ii)

From (i) and (ii)

n = 12 and m = 18

Now, let the number of mangoes be 'b'

Then,

$$\frac{b}{30 + b} = \frac{1}{6}$$

⇒ b = 6

Number of mangoes = 6

Number of strawberries = 12

Number of oranges = 18

Basket Y:

Number of strawberries in basket Y = $3 \times 6 = 18$

Let number of oranges be r.

Then, number of mangoes = 58 – (18 + r)

ATQ,

$$\frac{{}^{r}C_2}{{}^{58}C_2} = \frac{55}{551}$$

$$\Rightarrow \frac{r(r-1)\times 2}{2 \times 58 \times 57} = \frac{22}{551}$$

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∴ Number of mangoes = 58 – (18 + 12) = 28

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Basket Z:

Let the number of mangoes be 5x

Then, number of strawberries = $\frac{6}{5} \times 5x$ = 6x

Number of oranges = $\frac{150 \times 6x}{100}$ = 9x

Number of fruits in basket Z = 5x + 6x + 9x = 20x

ATQ,

$\frac{{}^{6x}C_2}{{}^{20x}C_2} = \frac{11}{130}$

$\Rightarrow \frac{6x(6x-1)}{20x(20x-1)} = \frac{11}{130}$

$\Rightarrow \frac{3(6x-1)}{10(20x-1)} = \frac{11}{130}$

$\Rightarrow 234x - 39 = 220x - 11$

$\Rightarrow 14x = 28$

$\Rightarrow x = 2$

Number of mangoes = 5×2 = 10

Number of strawberries = 6×2 = 12

Number of oranges = 9×2 = 18

Baskets / Fruits	X	Y	Z
Strawberry	12	18	12
Orange	18	12	18
Mangoes	6	28	10

Required difference= [(12 + 18 + 6) + (18 + 12 + 28) − (12 + 18 + 10)] = 54

75. ‘a’ number of apples are added into basket X and (a + 4) number of apples are added into basket Z. Find value of ‘a’ if probability of selecting an apple from basket X is equal to probability of selecting an apple from basket Z.

40
48
18
36
32

Solution:

Basket X:

$n = m - 6$ .....(i)

And $n = \frac{2}{3}m$.....(ii)

From (i) and (ii)

n = 12 and m = 18

Now, let the number of mangoes be ‘b’

Then,

$$\frac{b}{30 + b} = \frac{1}{6}$$

⇒ b = 6

Number of mangoes = 6

Number of strawberries = 12

Number of oranges = 18

Basket Y:

Number of strawberries in basket Y = $3 \times 6 = 18$

Let number of oranges be r.

Then, number of mangoes = 58 – (18 + r)

ATQ,

$\frac{{}^{r}C_2}{{}^{58}C_2} = \frac{55}{551}$

$\Rightarrow \frac{r(r-1)\times 2}{2 \times 58 \times 57} = \frac{22}{551}$

$\Rightarrow \frac{r(r-1)}{6} = 22$

$\Rightarrow r^2 - r = 132$

$\Rightarrow r^2 - r - 132 = 0$

$\Rightarrow r^2 - 12r + 11r - 132 = 0$

$\Rightarrow r(r - 12) + 11(r - 12) = 0$

$\Rightarrow r = 12.$

∴ Number of mangoes = 58 – (18 + 12) = 28

Number of oranges = 12.

Basket Z:

Let the number of mangoes be 5x

Then, number of strawberries = $\frac{6}{5} \times 5x = 6x$

Number of oranges = $\frac{150 \times 6x}{100} = 9x$

Number of fruits in basket Z = 5x + 6x + 9x = 20x

ATQ,

$\frac{{}^{6x}C_2}{{}^{20x}C_2} = \frac{11}{130}$

$\Rightarrow \frac{6x(6x-1)}{20x(20x-1)} = \frac{11}{130}$

$\Rightarrow \frac{3(6x-1)}{10(20x-1)} = \frac{11}{130}$

⇒ 234x – 39 = 220x – 11

⇒ 14x = 28

⇒ x = 2

Number of mangoes = 5×2 = 10

Number of strawberries = 6×2 = 12

Number of oranges = 9×2 = 18

Baskets / Fruits	X	Y	Z
Strawberry	12	18	12
Orange	18	12	18
Mangoes	6	28	10

ATQ

$$\frac{(a + 4)}{44 + a} = \frac{a}{36 + a}$$

⇒ $a^2 + 40a + 144 = a^2 + 44a$

⇒ 4a = 144

⇒ a = 36

76. Ashutosh sold a power bank to Arti at Rs 180 profit. Arti marked up its price by 75% over the cost price paid by her and then sold it to Mansi at a discount of $14\frac{2}{7}$ %. Profit earned by Arti is Rs 60 more than that by Ashutosh. Find the cost price for Ashutosh.

Rs. 250
Rs. 300
Rs. 750
Rs. 600
Rs. 450

Solution:

$14\frac{2}{7}\% = \frac{1}{7}$

Let A's CP of power bank = x

ATQ,

(x + 180) = Arti's cost price

Arti's selling price = (x + 180) × $\frac{175}{100} \times \frac{6}{7}$

= 1.5x + 270

ATQ,

1.5x + 270 – x - 180 = 180 + 60

0.5x + 90 = 240

$x = \frac{150}{0.5} \Rightarrow x = 300$

Cost price for Ashutosh = Rs 300

77. The cost of ploughing a rectangular field at the rate of Rs. 5 per m^2 is Rs. 1800, and the time taken to cover one round of perimeter of the field at a speed of 7 m/s is 14 seconds. Find the least distance between the two extreme corners of the field.

43 meters
49 meters
41 meters
31 meters
None of these

Solution:

Area of the rectangular field = $\frac{1800}{5} = 360\, m^2$

Perimeter of the field = $7 \times 14 = 98$ meters

Let length and breadth of the field be 'x' meters and 'y' meters, respectively

$xy = 360$

$2 \times (x + y) = 98$

$x + y = 49$

Squaring both sides, we get

$x^2 + y^2 + 2xy = 2401$

$x^2 + y^2 = 2401 - 2 \times 360 = 1681$

So, least distance between the two extreme corners of the field = $\sqrt{x^2 + y^2}$

= $\sqrt{1681}$ = 41 m

So option (C) is the correct answer.

78. Suresh and Mukesh started a business with an investment in the ratio of 5 : 7 respectively. After 6 months from the start of the business, Rahul joined with an investment which was twice Suresh's investment and after 10 months from the start of the business Mukesh withdraw all of the amount that he invested. If the total annual profit was 7600, what was the difference between Suresh's share and Mukesh's share in the annual profit?

Rs. 400
Rs. 450
Rs. 2400
Rs. 2800
None of these

Solution:

Suresh's investment = Rs. 5x

Mukesh's investment = Rs. 7x

Rahul's investment = Rs. 10x

Ratio of the equivalent capitals of Suresh, Mukesh and Rahul for 1 month = 5x × 12 : 7x × 10 : 6 × 10x

= 6 : 7 : 6

Sum of the terms of the ratio = 6 + 7 + 6 = 19

∴ Difference between the share of Suresh and Mukesh = $\frac{7-6}{19}$ ×7600 = **Rs. 400**

79. Arpit can do a work in x days. Vivek can do 40% of the same work in 12 days. If Ashutosh, Vivek and Arpit together can complete the whole work in 8 days and Arpit is 25% more efficient than Vivek, then in how many days Ashutosh alone can complete the work?

120 days
20 days
72 days
100 days
96 days

Solution:

Since, Vivek completes 40% of the work in 12 days.

So, time taken by Vivek to complete the whole work $= 12 \times \frac{100}{40} = 30 \text{ days}$

Time taken by Arpit (value of x) $= 30 \times \frac{4}{5} = 24 \text{ days}$

$\therefore$ Time taken by Ashutosh $\rightarrow \frac{1}{8} - \left(\frac{1}{24} + \frac{1}{30}\right)$

$\Rightarrow \frac{15 - 5 - 4}{120}$

$\Rightarrow \frac{6}{120} = \frac{1}{20}$

So, Ashutosh alone will complete the whole work in 20 days.

80. A Shopkeeper has two Indian brands of rice, Lal Qilla and India gate. He mixes both the rice in the respective ratio of 3 : 1. When 16 kg of mixed rice are sold and the Shopkeeper again mixes same quantity of India gate rice, the ratio of Lal Qilla and India gate rice becomes 2 : 2. How much quantity of Lal Qilla rice the Shopkeeper had initially?

26 kg
16 kg
36 kg
24 kg
72 kg

Solution:

Lal Qilla rice = 3x kg

India gate rice = x kg

In 16 kg,

Lal Qilla rice $= \frac{3}{4} \times 16 = 12$ kg

India gate rice $= \frac{1}{4} \times 16 = 4$ kg

As given in the question, final ratio is 2 : 2 i.e. 1 : 1.

$\therefore 3x - 12 = x - 4 + 16$

$\Rightarrow 2x = 24$

$\Rightarrow x = 12$

$\therefore$ Lal Qilla rice = 3 × $12 = 36$ kg

General awareness

81. The Reserve Bank of India (RBI) in its Annual Report for 2019-20 has decided to dissolve which of the following bodies?

Consumer Education and Protection Department (CEPD)
Banking Codes and Standards Board of India (BCSBI)
National Institute of Bank Management (NIBM)
Indira Gandhi Institute of Development Research (IGIDR)
Institute for Development and Research in Banking Technology (IDRBT)

Solution:

• The Reserve Bank of India (RBI) has decided to dissolve the Banking Codes and Standards Board of India (BCSBI).

• It was set up in February 2006 as an independent and autonomous body for formulating codes of conduct to be adopted by banks voluntarily for ensuring fair treatment of customers.

• BCSBI, in collaboration with the Indian Banks' Association (IBA), has evolved two codes – Code of Bank's Commitment to Customers and the Code of Bank's Commitment to Micro and Small Enterprises.

• The nodal department for BCSBI is CEPD (Consumer Education and Protection Department).

82. Ministry of Tourism has signed an MoU with which entity and FICCI Ladies Organisation (FLO) with primary objective of women empowerment?

Travel Agents Association of India (TAAI)
Indian Institute of Tourism and Travel Management (IITTM)
National Institute of Water Sports (NIWS)
National Council for Hotel Management and Catering Technology (NCHMCT)
Institutes of Hotel Management (IHM)

Solution:

• Ministry of Tourism has signed a formal Memorandum of Understanding (MOU) with the Travel Agents Association of India (TAAI) and FICCI Ladies Organisation (FLO) with primary objective of women empowerment.

• The signed MoU will enable FLO & TAAI to focus on personal and hospitality skills, a more flexible work balance and greater options for entrepreneurship with lower capital.

• The partnership between the three aims to increase the participation of women in the tourism sector and enable them to become an integral part of the tourism workforce of India.

• This will be achieved by creating awareness among state tourism departments and state tourism corporations, to highlight the contribution tourism industry can make for sustainable livelihood for women and ensure their economic upliftment.

83. Which of the following is the mobile unit that will provide Ayurveda Preventive and Promotive health services in the residential colonies of Delhi Police?

Dhanwantari Rath
MediCab
Corosure
Swavlamban Rath
None of the above

Solution:

• Delhi Police has signed MoU with All India Institute of Ayurveda (AIIA) to offer Ayurveda Preventive and Promotive health services in the residential colonies of Delhi Police through mobile unit named as 'Dhanwantari Rath' and Police Wellness Centres.

• Dhanwantari Rath will include team of expert Doctors who would be visiting Delhi Police colonies on regular intervals.

84. Amman is the capital city of which country?

Oman
Yamen
Jordan
Bahrain
Qatar

Solution:

• Amman is the capital and largest city of Jordan and the country's economic, political and cultural centre.

85. Which foreign bank has launched Omni Collect, a one-stop solution in India for businesses to offer multiple payment options on a single platform?

HSBC India
Citi Bank
Standard Chartered Bank
DBS Bank
Barclays Bank

Solution:

• HSBC India has launched Omni Collect, a one-stop solution in India.

• It supports businesses to offer multiple payment options on a single platform.

• It is designed for businesses to easily collect payments through various digital methods, thereby allowing them to easily adapt to the changes in consumer spending.

• With Omni Collect solution, HSBC India will enable businesses to offer different digital payment modes to their clients and also provide them with a comprehensive view of their collections.

86. Name the app developed by a class 9 student from Imphal which is based on Covid guidelines.

GoCoronaboi
TargetCovid
Covid Boi
Coroboi
CoronaWarrior

Solution:

• A class 9 student from Imphal, Baldeep Ningthoujam has developed a mobile game 'Coroboi' amid COVID-19 pandemic.

• The game, based on COVID guidelines is now available for Android users.

• According to the description of the app on Google play store, "Coroboi, a boy from India(Manipur) is stranded and wants to return home.

87. What is the theme of India Ideas Summit 2020?

Building a Better Future
Securing a Better Future
Global Economy
Realizing Opportunities of the 21st Century For All
Collective action for sustainable trade

Solution:

• India Ideas Summit 2020 focused on building global economic resilience through stronger domestic economic capacities

• Its theme was 'Building a Better Future'

• It was hosted by the US-India Business Council (USIBC) marking the 45th anniversary of USIBC that was established to enhance investment and India-US economic partnership.

88. ndian Akshay Urja Day or Renewable Energy Day is observed on every year on which date?

13th August
16th August
18th August
20th August
22nd August

Solution:

• Indian Akshay Urja Day or Renewable Energy Day is observed on 20th August every year.

• Indian Akshay Urja is observed to mark the importance of renewable energy resources in India.

• India's government is aware of the importance of development or renewable energy sources to provide the state with a sustainable amount of energy.

• It is significant to promote awareness about renewable resources among people who are ignorant about the subject.

• Indian Akshay Urja Day was established in 2004 to support renewable energy development programs and promote its use instead of traditional sources of energy. The very first event relating to Akshay Urja Diwas was organized in New Delhi.

89. What do you mean by Liquidity Adjustment Facility (LAF)?

Tool for adjusting daily mismatches in liquidity of banks
Tool used by RBI for adjusting liquidity in market
A facility through which inflation is controlled
It is a type of fund that adjust excess liquidity in the system
None of the above

Solution:

• Liquidity adjustment facility (LAF) monetary policy tool which allows banks to borrow money through repurchase agreements.

• LAF is used to aid banks in adjusting the day to day mismatches in liquidity (frictional liquidity deficit/surplus).

90. Who among the following has been selected for the 2021 Joel Henry Hildebrand Award?

Biman Bagchi
K Sivan
B . V. Sreekantan
C . S. Seshadri
Maneesha S. Inamdar

Solution:

• Indian Institute of Science (IISc) Professor Biman Bagchi has been selected as 2021 recipient of the Joel Henry Hildebrand Award in the Theoretical and Experimental Chemistry of Liquids.

• The awards are conferred by the American Chemical Society (ACS) and is sponsored by ExxonMobil Research and Engineering Co.

• The award consists of $5,000 and a certificate.

91. Who became the first-ever fast bowler to take 600 wickets in Test Match Cricket?

James Anderson
Pat Cummins
Nathan Lyon
Stuart Broad
Neil Wagner

Solution:

• England’s James Anderson became the first-ever fast bowler to take 600 wickets in a Test Match Cricket.

• He achieved this feat against Pakistan when he dismissed Azhar Ali.

• Overall, he is the 4th bowler to take 600 test wickets after 3 spinners Muttiah Muralitharan, Shane Warne, and Anil Kumble.

• Anderson, who made his Test debut in 2003 against Zimbabwe, had become the highest wicket-taker among seamers in 2018 when he dismissed Mohammed Shami against India at The Oval to go past Glenn McGrath's tally of 563 Test wickets.

92. Recently, India has signed a cultural agreement with which country that outlines a three-year programme of cooperation to further strengthen their strategic bilateral relations?

France
Israel
Germany
Belgium
Turkey

Solution:

• India and Israel signed a cultural agreement that outlines a three-year programme of cooperation to further strengthen their strategic bilateral relations today.

• It aims to promote greater people-to-people exchanges.

• The major areas of cooperation identified to promote cultural ties include the exchange of culture and art experts, encouraging cooperation in the protection of cultural heritage and archaeology with the help of Israel Antiquities Authority (IIA) and Archaeological Survey of India (ASI) and organising literary fests and book fairs while promoting the translation of famous works in each other's languages.

93. Which Indian conglomerate has launched "super app", an e commerce app with an aim to take on Amazon and Reliance Industries in the country's booming e commerce sector?

Tata Group
Adani Group
Aditya Birla Group
Alchemist Group
Amara Raja Group

Solution:

• Indian conglomerate Tata Group has launched a new app purported to bring together the country's disparate sales sector to offer a range of consumer goods in a “super app,”

• The app will offer food and grocery ordering, fashion and lifestyle, consumer electronics and consumer durables, insurance and financial services, education, healthcare and bill payments,

• The app will put the conglomerate in competition with giants of the region like Reliance Industries and global titans like Amazon.

94. The India Pavilion at the Army-2020 International Military and Technical Forum was inaugurated in which country?

Germany
France
Australia
Russia
United Kingdom

Solution:

• The India Pavilion at the Army-2020 International Military and Technical Forum was inaugurated by Secretary (Defence Production) Raj Kumar and Indian Ambassador DB Venkatesh Verma at Moscow, Russia.

• The forum will also host discussions among global military officials, researchers and defence industry experts about the application of 3D technologies in designing, manufacturing and operating weapons and military equipment.

• The forum was organised by the Russian Defence Ministry will be held from August 23-29 at the Patriot Park near Moscow, which has been the venue since 2015.

95. Which of the following has signed an MoU with National Health Authority (NHA) for providing the printing services of e-cards to the beneficiaries under Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY)?

India Sme Technology Services Limited
UTI Infrastructure Technology and Services Limited (UTIITSL)
IL & FS Education and Technology Services Limited
HCL Technology Private Limited
Acro Technologies India Private Limited

Solution:

• UTI Infrastructure Technology And Services Limited (UTIITSL) has signed MoU with National Health Authority (NHA) for providing the printing services of e-cards to the beneficiaries under Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY).

• UTIITSL will be providing the services of printing of e-cards through its branches and PSAs.

• The National Health Authority (NHA) is the apex agency of the Government of India responsible for the design, roll-out, implementation and management of Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) and the National Digital Health Mission across the country.

• NHA functions as an attached office of the Ministry of Health and Family welfare and is governed by a Governing Board chaired by the Union Minister of Health & Family Welfare.

96. Which city became India's cleanest city for the fourth year in a row in the Swachh Survekshan 2020 awards?

Jaipur
Indore
Bengaluru
Mysuru
Surat

Solution:

• Swachh Survekshan 2020 awards have been announced and Indore became India's cleanest city for the fourth year in a row.

• Union Minister Hardeep Singh Puri announced the Swachh Survekshan 2020 result at the Award Ceremony 'Swachh Mahotsav' in the national capital being organised by the Ministry of Housing and Urban Affairs (MoUHA).

• This is the fifth edition of the annual cleanliness survey of the country. A total of 129 awards will be handed out to the top-performing cities and states.

• Swachh Survekshan was started by Prime Minister Narendra Modi in 2016.

• While Mysuru won the award for the cleanest city of India in 2016, Indore retained the top spot for three consecutive years in 2017, 2018 and 2019.

• One city has been given only one Award. Cities population is as per 2011 Census.

97. n which of the following nations does 'Kormo' Employment App was first launched?

India
Indonesia
Sri Lanka
Bangladesh
China

Solution:

• 'Kormo App' was launched at first in Bangladesh in 2018, followed by Indonesia in 2019

• Kormo App is an employment app launched by Google which is a digital platform for both job seekers and providers

• Google has recently launched this app in India to help millions of Indians in entry-level jobs.

• It will be beneficial for those who have lost their jobs during the pandemic as well as for young professionals

98. Puthandu is a New Year celebrated in which state?

Tamil Nadu
West Bengal
Assam
Punjab

Kerala

Solution:

• Tamil people celebrate Puthandu, also called Puthuvarusham, as the traditional "Tamil/Hindu New Year", states Peter Reeves. This is the month of Chittirai, the first month of the Tamil solar calendar, and Puthandu typically falls on 14 April. In some parts of Southern Tamil Nadu, the festival is called Chittirai Vishu.

99. Which tech giant has launched 'The Anywhere School' initiative in more than 250 countries around the world?

Google
Facebook
Microsoft
Intel
IBM

Solution:

• Google launched 'The Anywhere School' initiative in more than 250 countries around the world.

• The initiative is expected to benefit millions of students who have switched to learning from home, due to the pandemic.

• Under the initiative, Google will roll out over 50 new features across products like Google Meet, Classroom, G Suite and other products.

• Google will launch custom and blurred backgrounds in Google Meet to provide 'extra privacy' to the users.

• Google Classroom will be available in 10 additional languages including Bengali, Telugu, Tamil, Marathi and Urdu in India. Globally the platform will provide support for over 54 languages.

100. Which of the following is the first publicly traded U.S. company reached over $2 trillion market stock value?

Microsoft
Apple

Facebook
Amazon
Google

Solution:

• Apple Inc. has become first publicly traded U.S. company to reach over $2 trillion market stock value.

• Its share price climbed above $467.77 gaining 60% in this year

• With this, Apple has become World's only second company to hit $2 trillion in market cap.

• Prior to this, Oil Major Saudi Aramco was the world's first and only publicly listed company to reach a $2 trillion market value in December 2019.

101. Recently Russell Kirsch passed away. He was famous for which of the following?

Inventor of Computer Mouse
Inventor of Abacus
Inventor of Pixel
Inventor of Floppy
Inventor of Keyboard

Solution:

• Computer scientist Russell Kirsch (91 years) passed away recently in Portland, Oregon.

• He was the inventor of 'Pixel' and scanned World's first digital photograph by creating 2-by-2-inch black-and-white digital image of his son.

• He structured a technique to smooth out images with the help of pixels with variable shapes

• Pixels: Digital dots used to display photos, video and more on phone as well as computer screens.

• He is also the developer of world's first programmable computer, SEAC (Standards Eastern Automatic Computer)

102. NABARD has signed an agreement with Vivriti Capital and which small finance bank to formulate the dedicated debt and credit guarantee scheme for non-banking financial companies and microfinance institutions?

Equitas Small Finance Bank
Ujjivan Small Finance Bank
Janalakshmi Small Finance Bank.
A U Small Finance Bank.
Capital Small Finance Bank

Solution:

• The National Bank for Agriculture and Rural Development (NABARD) announced the introduction of a dedicated debt and credit guarantee scheme for non-banking financial companies and microfinance institutions to make sure the abundant flow of credit in COVID-19 affected rural areas.

• A credit guarantee scheme provides credit risk alleviation to the lenders through absorbing a portion of the losses suffered by the lender on the loans made to Small and medium-sized enterprises in case of default, typically in return for a fee.

• NABARD has signed an agreement with Vivriti Capital and Ujjivan Small Finance Bank to formulate the credit guarantee program.

• Access to sustainable finance for microenterprises and low-income households is going to be easily available.

• The program will cater to over 1 million households across 28 states.

• The pooled loan issuance will bring down the costs of capital as the partial credit protection of NABARD provides more ease to the lending bank and the rating helps the lender to achieve its desired targets.

103. Which app has been launched by the Indian Air Force to provide career-related information and details to the aspirants who wish to join the Indian Air Force (IAF)?

'MY IAF'
'ASPIRE IAF'
'FUTURE IAF'
'IAF Recruitment'

‘OUR IAF’

Solution:

• Indian Air Force (IAF) has launched a mobile application named ‘MY IAF’ to provide career-related information and details to the aspirants who wish to join the Indian Air Force (IAF).

• The application was launched by the Chief of the Air Staff, Rakesh Kumar Singh Bhadauria.

• The app launched as a part of the Digital India initiative has been developed in association with the Centre for Development of Advanced Computing (C-DAC).

• The app serves as a single digital platform where users can find the details of the selection procedure, training curriculum, pay and perks etc for both officers and airmen in the IAF.

• The app provides glimpses into the history and stories of valour in the IAF.

104. A behaviour change campaign named ‘Navigating the New Normal’ has been launched by NITI Aayog in partnership with which foundation?

BRAC
Goonj
Kalinga Institute of Social Sciences
Melinda Gates Foundation
Tata Trusts

Solution:

• A behaviour change campaign named ‘Navigating the New Normal’ has been launched by NITI Aayog.

• Bill and Melinda Gates Foundation is a partner for the behavior change campaign.

• As the country is now in an Unlock phase, the aim is to develop an appropriate COVID safe behavior in the country, such as by making people adapt to wearing masks as a part of their daily routine.

• Until a vaccine is developed, it is essential for the citizens of the country to adopt certain behavioral changes in their day to day life by practicing hand hygiene, wearing masks, etc.

105. Tarapur Atomic Power Station is located in which state of India?

Maharashtra
Bihar
West Bengal
Odisha
None of these

Solution:

Tarapur Atomic Power Station (T.A.P.S.) is located in Tarapur, **Maharashtra**, India.
Note:-It was initially constructed with two boiling water reactor (BWR) units of **210 MWe** each initially by Bechtel and GE under the 1963 123 Agreement between India, the United States, and the International Atomic Energy Agency (IAEA).

106. oulomi Ghatak was associated with which sports, who announced her retirement from the sport?

Tennis
Badminton
Hockey
Table Tennis
Shooting

Solution:

• Poulomi Ghatak, one of the most successful Indian table tennis players, who represented India at various international levels, declared retirement from her tennis career.

• Poulomi Ghatak belongs to the state of West Bengal.

• She is married to Soumyadeep Roy, a professional table tennis player in India.

• Her tennis career started in 1992 at the age of 9.

• She won three junior national championships as well as seven senior national championships between 1996 and 2016.

107. Which of the following Public Sector Bank has waived off SMS charges along with penalty on non-maintenance of minimum balance for all its Savings Accounts?

ICICI
SBI
PNB
Bank of Baroda
UCO Bank

Solution:

• State Bank of India has waived off SMS charges in addition to its penalty waiver on non-maintenance of minimum balance for all its Savings Accounts including those with cheque or Internet Banking facilities.

• Earlier, SBI customers had to maintain an average monthly balance of Rs. 3000 (in metro), 2000 (in semi urban) and 1000 rupees (rural areas) respectively.

• SBI announced in March 2020 that the minimum balance charges will be waived off for all its Savings Account customers.

108. Which of the following ministry is designated to conduct Swachh Survekshan (Clean Survey) every year in India?

Ministry of Corporate Affairs
Ministry of Home Affairs
Ministry of Health and Family Welfare
Ministry of Housing and Urban Affairs
Ministry of Jal Shakti

Solution:

• Swachh Survekshan (Clean Survey) is conducted by Ministry of Housing and Urban Affairs

• Swachh Survekshan is a pan India annual cleanliness survey, which ranks India's cities, towns, and states on the indicators of sanitation, waste management and overall cleanliness.

• It was first released in 2016.

109. Which becomes the first bank in India to use satellite data to assess the creditworthiness of farmers?

HDFC Bank
ICICI Bank
Axis Bank
IndusInd Bank
Yes Bank

Solution:

• ICICI Bank uses satellite data to assess the creditworthiness of farmers. ICICI Bank has become the 1st bank in India to use such a technique to measure an array of parameters related to the land, irrigation and crop patterns and use it in combination with demographic and financial parameters to make quick lending decisions for farmers.

• The satellite data with demographic and financial details provides strong information on the land asset of the farmers.

• Usage of this technology will help farmers with existing credit to expand their eligibility and help new-to-credit farmers to get better access to formal credit.

110. Which one of the following states has launched Electronics Manufacturing Policy 2020 in a bid to support PM’s vision of achieving ZERO import of electronics goods?

Madhya Pradesh
Chhattisgarh
Orissa
Jharkhand
Uttar Pradesh

Solution:

• Uttar Pradesh Government has announced the launch of Electronics Manufacturing Policy 2020 in a bid to support Prime Minister Narendra Modi's vision of achieving ZERO import of electronics goods

• It will invite investment of 40 thousand Crore rupees in next 5 years and generate four lakh direct employment.

• The new 2020 policy has been extended to the entire state and will address the regional imbalance, double the rate of land subsidy has been provided to investors for setting up manufacturing units in Bundelkhand and Purvanchal regions.

111. Who headed the task force constituted by the NITI Aayog that recommended linking of Sugarcane prices to sugar rate?

V K Saraswat
V K Paul
Ramesh Chand
Bibek Debroy
Rajiv Kumar

Solution:

• The panel on 'Sugarcane and Sugar Industry', headed by Niti Aayog Member (Agriculture) Ramesh Chand has submitted its report.

• The Niti Aayog task force has recommended linking sugarcane prices to sugar rates to keep the industry in sound financial health.

• It has also pitched for a one-time increase in minimum sugar price to Rs 33 per kilo to help sugar mills cover the cost of production.

• The task force also recommended shifting of some areas under sugarcane cultivation to less water-intensive crops by providing suitable incentive to farmers.

112. Which state government has launched a new scheme for promoting intensive aquaculture through Biofloc technology in fisheries?

Kerala
Tamil Nadu
Odisha
Goa
Gujarat

Solution:

• To provide employment to people during the pandemic period, the Odisha government has launched a new scheme for promoting intensive aquaculture through Biofloc technology in fisheries.

• The scheme will provide livelihood support to entrepreneurs, unemployed youth and interested progressive fish farmers and will also increase fish production in the state.

• Biofloc based farming system is a new technology for the promotion of intensive fish/ shrimp production in a limited area without significantly increasing the usage of the basic natural resources of water and land.

• A person having small landholding (as small as 150-200 square metre of land) and having either municipal piped water supply or bore well water supply can establish this business with a small investment.

113. As per the recent data published by the Geneva-based World Intellectual Property Organization (WIPO), India filed what per cent of the global patent applications?

Less than 1 per cent
1 per cent
2 per cent
3 per cent
4 per cent

Solution:

• The recent data published by the Geneva-based World Intellectual Property Organization (WIPO) has shown that India filed less than 1% of the global patent applications with total filings of 2,053 in 2019.

• Apart from that, a decline has been noticed in applying for trademarks (0.7%) and only three industrial designs have filed in 2019.

• The international patent application under the Patent Cooperation Treaty is a type of right granted for an invention that offers a new technical solution to a problem.

• China ceased the hegemony of the US in filing for patents in 2019 with a total of 58,990 applications, which is 22% of the global filings.

114. Tribal Affairs Minister Arjun Munda has launched tertiary processing centres under the 'TRIFOOD' project in which of the following states?

Bihar
Maharashtra
Chhattisgarh
A and B
B and C

Solution:

• Tribal Affairs Minister Arjun Munda virtually launched the tertiary processing centres under the 'TRIFOOD' project at Raigad in Maharashtra and Jagdalpur in Chhattisgarh.

• The TRIFOOD Project aims at enhancing the income of tribals through better utilization and value addition to the Minor Forest Produces (MFPs) collected by the tribal forest gatherers.

• 'TRIFOOD' project is being implemented by Tribal Cooperative Marketing Development Federation of India (TRIFED).

• Under the project, two Minor Forest Produce (MFP) processing units will be set up.

115. Which of the following exchanges is going to launch India's first bullion index named "Bulldex"?

Bombay Stock Exchange (BSE)
National Stock Exchange (NSE)
Multi Commodity Exchange of India (MCX)
OTC Exchange of India
Calcutta Stock Exchange

Solution:

• Multi Commodity Exchange of India (MCX) will launch India's first bullion index named "Bulldex", on August 24, 2020.

• Bullions, viz. gold and silver are already being traded as individual commodities on the country's premier commodity exchange.

• With gold and silver as underlying, Bulldex will have a market lot size of 50 and be cash-settled futures contract. MCX had tested bullion index futures trade in mock trading exercises in July.

116. Which of the following financial institutions has introduced, 'Structured Finance and Partial Guarantee Program for Non-Banking Finance Companies (NBFC)-Micro Finance Institutions (MFIs)?

Small Industries Development Bank of India (SIDBI)
NABARD
State Bank of India (SBI)
Industrial Finance Corporation of India (IFCI)
Life insurance corporation of India (LIC)

Solution:

• he National Bank for Agriculture and Rural Development (NABARD) has introduced, 'Structured Finance and Partial Guarantee Program for Non-Banking Finance Companies (NBFC)-Micro Finance Institutions (MFIs).

• It is a dedicated debt and credit guarantee product to ensure uninterrupted flow of credit to the last mile in rural areas hit by the COVID-19 pandemic.

• NABARD has signed a pact with Vivriti Capital and Ujjivan Small Finance Bank on 14 August 2020 to introduce the initiative, which will enhance sustainable finance access to microenterprises and low-income households.

117. Who among the following has been appointed as new Director General of the Federation of Indian Chambers of Commerce and Industry (FICCI)?

Ankit Agarwal
Chinmay Kumar
Sandeep Baru
Dilip Chenoy
None of these

Solution:

Dilip Chenoy has been appointed as new Director General of the Federation of Indian Chambers of Commerce and Industry (FICCI). Earlier, he was Chairman of

Sant Longowal Institute of Engineering and Technology and Member, Board of Advisors, IILM. He was awarded the Game Changer Award in 2015 and the Rashtriya Media Ratan Award.

118. As per the new announcement made by the Finance Ministry of the Government of India what shall be the annual turnover for the Businesses to enjoy GST exemption?

20 lakh
30 lakh
40 lakh
50 lakh
75 lakh

Solution:

• The Finance Ministry of the Government of India has declared in a series of statements that Businesses with an annual turnover of up to Rs 40 lakh will enjoy GST exemption.

• Previously the threshold limit was Rs 20 lakh.

• During the commemoration ceremony of the first death anniversary of former Finance Minister Arun Jaitley, the Finance Ministry of GoI released a series of statements

• GST has reduced the tax rate as well as increased the number of taxpayers.

• The business with an annual turnover of up to Rs 40 lakh will be shifted under the GST exempt category.

• The organization with a turnover up to Rs. 1.5 crore can adopt the Composition Scheme and pay only 1% tax.

119. After picking up a stake in HDFC Bank, the People's Bank of China has acquired a very small stake in which Indian bank through the recently closed Rs 15,000 crore qualified institutional placement (QIP) issue by the private sector lender?

Yes Bank

Bandhan Bank
ICICI Bank
Axis Bank
Kotak Mahindra Bank

Solution:

• The Chinese central bank People's Bank of China has acquired a very small stake in ICICI Bank through the recently closed Rs 15,000 crore share sale by the country's second largest private sector lender.

• The People's Bank of China was among 357 institutional investors which included domestic mutual funds, insurance firms and global institutions that subscribed to the issue.

• The Chinese central bank has picked up shares worth Rs 15 crore in Rs 15,000 crore qualified institutional placement (QIP) issue

120. Who has been appointed as the new chief executive officer of Jaguar Land Rover (JLR)?

N Chandrasekaran
Thierry Delaporte
Thierry Bollore
Paul Hermelin
Ralf Speth

Solution:

• Thierry Bolloré has been appointed as the new chief executive officer of Jaguar Land Rover (JLR) effective September 10, 2020.

• He will succeed Ralph Speth, who will continue as non-executive chairman of JLR. Bollore has worked in automotive and auto component companies like Renault, Faurecia and Michelin.

• He most recently was the CEO of Groupe Renault.

• The appointment of Bollore comes at a time when the world is grappling with the Covid-19 pandemic and JLR has not remained aloof from its impact. Most recently, hit by the Covid-19 pandemic, JLR reported a significantly lower sales, suffering a loss of £501 million in the quarter ended March 31, 2020, and reported revenues of £5.4 billion.

English language

(121-128) **Direction:** Read the given passage carefully and answer the questions that follow. Certain words are printed in bold to help you locate them while answering some of these.

Chinese state media has attacked the White House for escalating the prospect of a trade war, calling the administration of president Donald Trump “selfish” and “rude” and “mundane” in its capriciousness. “The unpredictability of [the] Trump administration has become mundane, or even boring for China,” an editorial in the state-run tabloid Global Times said on Sunday. “It reinforces the difference in images of the two countries: one challenges the foundation of global trade through sudden attacks, and one that is prepared to defend itself in a trade war that it cannot avoid.”
After months of negotiations, China and the US are on the brink of an all-out trade war. On Friday, the US unveiled a list of $50bn in Chinese goods to target with 25% tariffs, pledging more duties if China retaliated. Within hours China released its own list of retaliatory tariffs to place on $50bn in US imports. An editorial in the People’s Daily on Saturday said the latest
trade **provocations** allowed China “to see more clearly the face of the Trump administration, one that is rude, unreasonable, selfish and headstrong”. China’s official Xinhua news agency added: “The wise man builds bridges, the fool builds walls. With economic globalisation there are no **secluded** and isolated islands.”
China’s proposed tariffs on more than 500 categories of US goods, a list more extensive than the one it released in April, appear aimed at hurting Trump’s Republican base before the US midterm elections in November. The list includes beef, poultry, pork, dairy products, seafood, tobacco and soybeans. China is the largest buyer of US soybeans. Beijing said it would also target $16bn of US products like coal, crude oil, natural gas, and medical equipment at a later date.
The situation could still escalate. US trade representative Robert Lighthizer has said the White House will release a plan by the end of the month on restricting Chinese investment in the US and limiting Chinese purchases of advanced

technology from the country. Trump has said he would triple the value of Chinese imports subjected to tariffs to $150bn. Other levers Beijing has already begun to employ include extra inspections on current US imports into China.
"The economic damage of the tariffs announced so far won't be too big in the scheme of things. But that could quickly change," said Roland Rajah, the director of the international economy programme at the Lowy Institute in Sydney. Chinese state media still left room for the possibility of negotiations. "Given the frequent flip-flopping of the Donald Trump administration, it is still too early to conclude that a trade war will start," said an English-language editorial in the China Daily.

121.Why did the Chinese media call president Trump "selfish", "rude" and "mundane"?
For directing ministers in the possible event of a likely no-deal.
For surging the possibility of a trade war.
For launching the immigration scheme that will apply to Britain's citizens.
For publishing a "statement of intent".
For objecting to a government amendment to the bill which would limit the power of MPs in shaping policy.

Solution:

As stated in the 1st paragraph, "Chinese state media has attacked the White House for escalating the prospect of a trade war, calling the administration of president Donald Trump "selfish" and "rude" and "mundane" in its capriciousness." Hence, option B is the correct answer.

122. What revelations did the US make about its targets for Chinese goods?

It presented a list of $50bn in Chinese goods that will be targeted with 25% tariffs.
It launched a series of Conservative rebels pulled back from voting against the government.
About making the citizens sign up to a slavery clause now saying whatever the government does.
About supporting parliament getting a proper truly meaningful vote.

About an amendment that offered parliament the opportunity only to vote on a "neutral motion".

Solution:

As stated in the 2nd paragraph, "On Friday, the US unveiled a list of $50bn in Chinese goods to target with 25% tariffs, pledging more duties if China retaliated." Hence, option A is the correct answer.

123. How did China perceive the Trump administration?

China saw the possibility that they have all got to sign up to a slavery clause now saying whatever the government does.
China saw the possibility of defeat over a meaningful vote.
China saw it as rude, unreasonable, selfish and headstrong.
China has an idea that US had double-crossed its rebels.
All of these

Solution:

As stated in the 2nd paragraph, "the latest trade provocations allowed China "to see more clearly the face of the Trump administration, one that is rude, unreasonable, selfish and headstrong"." Hence, option C is the correct answer.

124. What step did China take in order to hurt Trump's Republican base before the US mid-term elections?

China made government policies such that they aimed at helping entrepreneurs.
China offered parliament the opportunity to vote on a "neutral motion".
China ended up abstaining after the promise of a compromise.
China proposed tariffs on more than 500 categories of US goods.
China scared away potential recruits who did not even need visas to work in the UK.

Solution:

As stated in the 3rd para, "China's proposed tariffs on more than 500 categories of US goods, a list more extensive than the one it released in April, appear aimed at hurting Trump's Republican base before the US midterm elections in November." Hence, option D is the correct answer.

125. According to US trade representative, what plan will the White house release by the end of the month?

About making such government policies that are targetted at helping entrepreneurs.
About controlling immigration, and ensuring that the brightest and the best talent from around the world can come there.
On restricting Chinese investment in the US and limiting Chinese purchases of advanced technology from the country.
About scaring away potential recruits who do not even need visas to work in the UK.
About depriving the UK of the tax revenue they would otherwise have contributed.

Solution:

As stated in the 4th paragraph, "US trade representative Robert Lighthizer has said the White House will release a plan by the end of the month on restricting Chinese investment in the US and limiting Chinese purchases of advanced technology from the country." Hence, option C is the correct answer.

126. What will Trump do to ensure the restriction of Chinese investments in the US?

He would come up with a policy to scare away potential recruits who do not even need visas to work in the US.
He would triple the value of Chinese imports subjected to tariffs to $150bn.
He would expand its visa programme to meet demand.
He would make Chinese immigrants go back to their home countries but will allow them to continue working remotely as contractors
None of these

Solution:

As stated in the 4th paragraph, "US trade representative Robert Lighthizer has said the White House will release a plan by the end of the month on restricting Chinese investment in the US and limiting Chinese purchases of advanced technology from the country. Trump has said he would triple the value of Chinese imports subjected to tariffs to $150bn." Thus, option B is the correct answer.

127. Which of the following words carries a meaning similar to the word "provocation"?

Acquiescent
Amenable
Incitement
Compliment
Repression

Solution:

The word "provocation" means criticising someone and out of the given words, "Incitement" has a similar meaning. "Acquiescent" and "amenable" means resignation. "Compliment" and "repression" are the antonyms of the given word. Hence, option C is correct.

128. Which of the following words carries a meaning opposite to the word "secluded"?

Ratified
Endorsed
Cloistered
Sequestered
Attainable

Solution:

The word "secluded" means private or hidden and out of the given words, "Attainable" has a meaning opposite to the given word. "Ratified" and "endorsed" means approved. "Cloistered" and "sequestered" are the synonyms of the given word. Hence, option E is correct.

(129-136) **Direction:** In the following passage, there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately.

Once upon a time, there was a lazy wolf **(129)** in a jungle. Near his house was a pond. Many animals came to the pond to drink water. The wolf was always in

search of food. One day, he was sitting near the pond **(130)** to get something to eat when suddenly he **(131)** a dead bull. “Aha! What a luck! Now I can eat all I want," he thought and his mouth started **(132)**.
He began to eat the bull. A thought struck him, “if another beast comes this way he will ask for a share. I had better eat fast." ‘Grub! Grub! Grub! Grub!’ he chewed, faster and faster. In his **(133)**, a piece of bone got stuck in his throat.
“Ohh! Errk!" cried the wolf. He tried to bring it out of his mouth. He tried to cough it out but in **(134)**. Next, he tried to swallow it down but he failed.
“Ooh, the bone in throat hurts. What shall I do now?" thought the wolf. Suddenly he remembered that a crane lived on the nearby riverbank.
The wolf went to the crane and pleaded, “My dear Crane! I have got a bone stuck in my throat. I will give you a present, if you pull it out of my throat with your long beak." The crane took pity on the wolf. He asked the wolf to look up with his mouth open. The crane then put its head into the wolf’s mouth and pulled out the bone.
“Oh! What a relief!" the wolf sighed.
“Now where is my **(135)**?" asked the crane.
“What present?" the wolf replied, pretending not aware of its promise.
“You said that you would give me a present if I remove the bone from your throat," said the crane humbly.
“Hah! Is it not a present that you put your head into my mouth and got out alive? I could have easily crushed your head while your beak was inside my mouth," said the ungrateful wolf and went away.
The crane felt **(136)** and decided not to help any ungrateful creature in the future.

129.Find out the appropriate word in each case.

Playing
Living
Existing
Hiding
Running

Solution:

A wolf being a carnivore lives and hunts in a jungle. The word ‘living’ paints a larger picture of the wolf in the jungle. Hence the correct answer is option B. Playing, existing, hiding and running are superficial words which can't be said for certain unless the context is known. The lines following the first line talk about a usual scenario which means that the wolf resided in the jungle.

130. Find out the appropriate word in each case.

Running
Hoping
Playing
Secretly
Fighting

Solution:

‘Hoping’ is the process of wanting something to happen. In this case, the wolf wanted food. Running and playing don’t fit well into the passage. Secretly is also grammatically incorrect to be used in the sentence. There is no clue to infer if he was fighting for food. Hence the correct answer is option B.

131. Find out the appropriate word in each case

Chased
Dreamt
Spotted
Pulled
Explained

Solution:

The wolf was wandering around for food. He was sitting near a pond when he saw the bull lying. Correspondingly, the most suitable response is ‘spotted’, since it means ‘to notice something’. Hence the correct answer is option C.
Chased doesn't fit in with a dead bull.
Dreamt, pulled and explained make no sense either.

132. Find out the appropriate word in each case

Swelling
Enlarging
Big
Suffocate
Watering

Solution:

'Mouthwatering' is an adjective that refers to something which is tempting. In this case, the hungry wolf spotted a dead bull so he got tempted. The other words do not make any sense when put in the blank field. Hence the correct answer is option E.

133. Find out the appropriate word in each case.

Tired
Haste
Imagination
Fear
Surrounding

Solution:

The following part talks about what happened when the wolf ate fast. The part with the blank represents the action of eating fast. Hence, the only word that fits perfectly into this context is 'haste'. Hence the correct answer is option B.

134. Find out the appropriate word in each case.

Pride
Fame
Vain
Attitude
Rain

Solution:

When the bone got stuck, the wolf tried to cough it out the bone but he couldn't do it. His actions produced no result whatsoever, which is same as 'vain'. Hence the correct answer is option C.

135. Find out the appropriate word in each case

Bone
Money
Card
Present
Coins

Solution:

'Present' is a gift that a person gives to someone. In this case, the wolf offered a present to the crane in lieu of pulling out the bone. Hence, the word fits in perfectly, hence the correct answer is option D.

136. Find out the appropriate word in each case

Helpless
Stronger
Proud
Wise
Cunning

Solution:

Upon helping the wolf and not getting the promised present, the crane felt bad but couldn't do anything since the wolf was a stronger animal and thus, felt 'helpless'. Hence the correct answer is option A.

137. **Direction:** Given below are three statements, of which some may be incorrect. Identify the correct statement(s).

I. She pinned carefully the two pieces of cloth together.

II. She carefully pinned the two pieces of cloth together.

III. She pinned the two pieces of cloth together carefully.

Both I and II
Both II and III
Both I and III
Only I
None of these

Solution:

The sentences II and III are correct.

An adverb of manner, 'carefully', cannot be put between a verb and its direct object. The adverb must be placed either before the verb or at the end of the clause.

Hence, **option B** is the correct answer.

138. **Direction:** Given below are three statements, of which some may be incorrect. Identify the correct statement(s).

I. Our plans need to be flexible enough to cater for the needs of everyone.

II. Our plans need to be enough flexible to cater for the needs of everyone.

III. Our plans should be flexible enough to cater for the needs of everyone.

Only I
Only II
Both I and III
Only III
All of these

Solution:

The sentences I and III are correct.

‘Enough’, as an adverb meaning 'to the necessary degree', is used after the adjective or adverb that it is modifying, and not before it as other adverbs do.

In sentence II, the use of enough after 'flexible' is erroneous.

Hence, **option C** is the correct answer.

139. **Direction:** Given below are three statements, of which some may be incorrect. Identify the correct statement(s).

I. He who would climb the ladder have to begin at the bottom.

II. He who would climb the ladder must begin at the bottom.

III. He who would climb the ladder has to begin at the bottom.

Only I
Both II and III
Only II
Both I and III
All of these

Solution:

The sentences II and III are correct.

In sentence I, the use of 'have' violates the subject-verb agreement. It should have been 'has' to agree with 'he' to make the sentence grammatically correct.

Hence, **option B** is the correct answer.

140. **Direction:** Given below are three statements, of which some may be incorrect. Identify the correct statement(s).

I. Villages after villages was visited by the minister during the last election.

II. Villages after villages were visited by the minister during the last election.

III. Village after village was visited by the minister during the last election.

Only I
Only II
Only III
Both I and II
All of these

Solution:

If a preposition connects two similar nouns, the noun is used in singular form and takes a singular verb.

In statement I, the usage of villages is incorrect.

In statement II usage of villages is incorrect along with were.

Sentence III is both grammatically and contextually correct.

So, the correct answer is option C.

141. **Direction:** Given below are three statements, of which some may be incorrect. Identify the correct statement(s).

I. When I visited temple at Kalighat, I saw him kneeling at the alter.

II. When I visited temple at Kalighat, I see him kneeling at the altar.

III. When I visited temple at Kalighat, I saw him kneeling at the altar.

Only I
Only II
Only III
Both I and II
All of these

Solution:

Let us first understand the meanings of the word 'alter' and 'altar'.

'Alter' (verb) means 'change in character or composition, typically in a comparatively small but significant way'.

'Altar' (noun) means 'a place of worship'.

The sentence is talking about a temple. It is a place of worship.

The sentence I is incorrect, because, 'alter' makes no sense here.

The sentence III is in past tense. Hence, past form of 'see' must be used.

Only, sentence II is correct both grammatically and contextually.

Thus, the correct answer is option C

142. **Direction:** Given below are three statements, of which some may be incorrect. Identify the correct statement(s).

I. Kajal's parents said that on Diwali a car is to buy by them.

II. Kajal's father said that on Diwali a car is to be bought by them.

III. Kajal's father said that on Diwali a car should be buy by them.

Only I
Only II
Only III
Both I and II
All of these

Solution:

The sentence is in passive voice.

For passive voice the structure is Object + was + V3 + by + subject

The sentence I is incorrect. 'Buy' must be replaced with 'bought'.

The structure of the sentence III is wrong. After 'should be' past form of verb must be used. So, 'buy' must be replaced with 'bought'.

Only sentence II is both contextually and grammatically correct.

Hence, the correct answer is option B.

(143-147) Rearrange the following sentences (A), (B), (C), (D) and (E) in a proper sequence to form a meaningful paragraph. Then answer the questions that follow.

A. But realising the full value of those guarantees at times requires a parley with the state.
B. It revolutionised the citizen's ability to engage with a mechanism to ferret out some of the truth from the government's otherwise secretive operations.
C. It was one such long battle, fought over nearly two decades, driven by the unstinting efforts of the Mazdoor Kisan Shakti Sangathan, that resulted in the enactment in 2005 of the Right to Information Act.
D. India's constitution provides a framework for governance by pledging to people a set of inviolable guarantees.
E. As illustrated in multiple instances, the law proved transformative to India's democracy.

143.Which of the following will be the **FOURTH** statement after rearrangement?

E
C
D
A
B

Solution:

All sentences except (D) appear to be the continuation of some other sentences as they either carry pronouns referring to a subject mentioned earlier or begin with a conjunction. D talks about the unique provision that the constitution of India provides, i.e., a set of inviolable guarantees. Sentence (A) refer to these "guarantees" to convey their full value is realised only through a conversation

with the state. Thus, (A) follows (D). (C) states how the guarantees were secured after a long battle through the enactment of the Right to Information Act in 2005. It, thus, logically following sentence (A). “The law” in E refers to the enacted “Right to Information Act”. Thus, sentence (E) follows (C). Sentence (B) gives instances on how the law proved transformative.

Thus, DACEB is the correct sequence after rearrangement.

144. Which of the following will be the **THIRD** statement after rearrangement?

C
D
A
F
B

Solution:

All sentences except (D) appear to be the continuation of some other sentences as they either carry pronouns referring to a subject mentioned earlier or begin with a conjunction. D talks about the unique provision that the constitution of India provides, i.e., a set of inviolable guarantees. Sentence (A) refer to these “guarantees” to convey their full value is realised only through a conversation with the state. Thus, (A) follows (D). (C) states how the guarantees were secured after a long battle through the enactment of the Right to Information Act in 2005. It, thus, logically following sentence (A). “The law” in E refers to the enacted “Right to Information Act”. Thus, sentence (E) follows (C). Sentence (B) gives instances on how the law proved transformative.

Thus, DACEB is the correct sequence after rearrangement.

145. Which of the following will be the **LAST** statement after rearrangement?

E
C
D
A
B

Solution:

All sentences except (D) appear to be the continuation of some other sentences as they either carry pronouns referring to a subject mentioned earlier or begin with a conjunction. D talks about the unique provision that the constitution of India provides, i.e., a set of inviolable guarantees. Sentence (A) refer to these "guarantees" to convey their full value is realised only through a conversation with the state. Thus, (A) follows (D). (C) states how the guarantees were secured after a long battle through the enactment of the Right to Information Act in 2005. It, thus, logically following sentence (A). "The law" in E refers to the enacted "Right to Information Act". Thus, sentence (E) follows (C). Sentence (B) gives instances on how the law proved transformative.

Thus, DACEB is the correct sequence after rearrangement.

146. Which of the following will be the **FIRST** statement after rearrangement?

E
A
D
B
C

Solution:

All sentences except (D) appear to be the continuation of some other sentences as they either carry pronouns referring to a subject mentioned earlier or begin with a conjunction. D talks about the unique provision that the constitution of India provides, i.e., a set of inviolable guarantees. Sentence (A) refer to these "guarantees" to convey their full value is realised only through a conversation with the state. Thus, (A) follows (D). (C) states how the guarantees were secured after a long battle through the enactment of the Right to Information Act in 2005. It, thus, logically following sentence (A). "The law" in E refers to the enacted "Right to Information Act". Thus, sentence (E) follows (C). Sentence (B) gives instances on how the law proved transformative.

Thus, DACEB is the correct sequence after rearrangement.

147. Which of the following will be the **SECOND** statement after rearrangement?

B

E
D
A
C

Solution:

All sentences except (D) appear to be the continuation of some other sentences as they either carry pronouns referring to a subject mentioned earlier or begin with a conjunction. D talks about the unique provision that the constitution of India provides, i.e., a set of inviolable guarantees. Sentence (A) refer to these "guarantees" to convey their full value is realised only through a conversation with the state. Thus, (A) follows (D). (C) states how the guarantees were secured after a long battle through the enactment of the Right to Information Act in 2005. It, thus, logically following sentence (A). "The law" in E refers to the enacted "Right to Information Act". Thus, sentence (E) follows (C). Sentence (B) gives instances on how the law proved transformative.

Thus, DACEB is the correct sequence after rearrangement.

148. **Direction:** In the given question, a part of the sentence is in bold. Below the sentence, alternatives to the emboldened part are given as (A), (B), (C) and (D), which may help improve the sentence. In case the given sentence is correct, your answer will be option (E), i.e. no correction is required.

For 35 years, **no one is held accountable for Raja Man Singh's death**, with police claiming they had fired in self-defence.

no once held accountable for Raja Man Singh's death
no one has held accountable for Raja Man Singh's death
no one was held accountable for Raja Man Singh's death
no one were held accountable for Raja Man Singh's death
No correction is required

Solution:

The said incident happened 35 years ago i.e. in the past. The verb needs to be in the past tense i.e. it should be "was" and not "is". The correct way of expressing will be "no one was held accountable".

Therefore, option C is the correct answer to this question.

149. Direction: In the given question, a part of the sentence is printed in bold. Below the sentence, alternatives to the emboldened part are given as (A), (B), (C) and (D), which may help improve the sentence. Choose the correct alternative out of the given five options. In case the given sentence is correct, your answer will be option (E), i.e., No correction required.

David **has been appointed as managing director** of the new division.
Was appointed as managing director
Has been appointed as a managing director
Has been appointed managing director
Was appointed as the managing director
No correction required

Solution:

Note that “As” is not used with verbs like “appointed”, “elected”, “considered” etc. Considering this, C becomes the most appropriate choice.

150. **Direction:** In the given question, a part of the sentence is printed in bold. Below the sentence, alternatives to the emboldened part are given as (A), (B), (C) and (D), which may help improve the sentence. Choose the correct alternative out of the given five options. In case the given sentence is correct, your answer will be option (E), i.e., "No correction required".

It took years for his eras to heal, and he was still left with scars at the end of it
It took ears for his years to heal
It took ears for his ears to heal
It took years for his eras to heal
It took years for his ears to heal
No correction required

Solution:

The term ‘eras’ denote prolonged stretches of time. When used with ‘years,’ it is rendered tautological. The term ‘ears’ indicate a body part, which, when harmed, may take time (in this case years) to heal.

151. **Direction:** In the following question, a part of the sentence is printed in bold. Below the sentence, alternatives to the bold part are given at (A), (B), (C), (D) and (E) which may help improve the sentence. Choose the correct alternative.

After the event, Mandy and Charlotte stayed **behind while the other** girls went home.

behind while another
behind while the others
behind while the other
behind while others
No Correction Required

Solution:

Other as a determiner does not have a plural form. So, the correct replacement is 'behind while the other' and the correct choice is C.

152. **Direction:** In the following question, a part of the sentence is printed in bold. Below the sentence, alternatives to the bold part are given at (A), (B), (C), (D) and (E) which may help improve the sentence. Choose the correct alternative.

An engineering student must study hard **if they wants to succeed.**
if they want to succeed.
if want to succeed.
if it wants to succeed.
if he or she wants to succeed.
No Correction Required

Solution:

The subject 'student' is singular and the pronoun 'they' is plural, so we need to use either 'he' or 'she' or both 'he or she' to achieve noun-pronoun agreement. So, the correct replacement is 'if he or she wants to succeed' and the correct choice is D.

153. **Direction:** In this question, two columns I and II and three sentences are given, which are divided into two parts. Column I (A, B and C) consists of first half of each sentence and Column II (D, E and F) consists of second half of each

sentence. Match column I with column II, so that the sentences formed are both meaningful and grammatically correct. Choose the option as your answer.

I.

A. Leave it on
B. I haven't slept
C. Please don't be rude towards

II.

D. God to find you the right partner.
E. night and am very tired.
F. Animals, they deserve love and respect too.

B-E
A-D, C-F
A-F and C-D
B-D
A-E and C-D

Solution:

We must join two parts of a sentence in a way that they form a meaningful and grammatically correct sentence. Part A tells us to leave it on God, and Part D provides the reason for it. Part C and F when read together make a meaningfully correct pair. However, part B and E do not make a correct pair as part E is grammatically incorrect ("night" should be replaced with "all night").

Therefore, the correct answer choice is option B.

154. **Direction:** In this question, two columns I and II and three sentences are given, which are divided into two parts. Column I (A, B and C) consists of first half of each sentence and Column II (D, E and F) consists of second half of each sentence. Match column I with column II, so that the sentences formed are both meaningful and grammatically correct. Choose the option as your answer.

I.

A) Let her go there herself

B) Please don't disturb the child

C) This year has been by far the

II.

D) As she sleep right now

E) Bad year in history

F) As she is the only one interested.

B-E and C-F
A-D, B-E and C-F
A-F
B-D, A-E
A-E and C-D

Solution:

We must join two parts of a sentence in a way that they form a meaningful and grammatically correct sentence. Part A and part F form a meaningfully and grammatically correct pair. Parts B and D might have made a right pair if there was the correct tense in part D i.e. “sleeping”. Similarly, parts C and E could make the right pair if the superlative form was used correctly, i.e. “worst”.

Therefore, the correct answer choice is option C.

155. **Direction:** In this question, two columns I and II and three sentences are given, which are divided into two parts. Column I (A, B and C) consists of first half of each sentence and Column II (D, E and F) consists of second half of each sentence. Match column I with column II, so that the sentences formed are both meaningful and grammatically correct. Choose the option as your answer.

I.

A) I have never been to Paris

B) The party was over by the time

C) You’re too young to be talking

II.

D) Before and this is my very first time.

E) She has arrives

F) To your the parent like that

B-E and C-F
A-D
A-F and C-D
B-D
A-E and C-D

Solution:

We must join two parts of a sentence in a way that they form a meaningful and grammatically correct sentence. Part A and D together make the correct pair, both grammatically and meaningfully, we can clearly see that upon reading them both together. Parts B and E would have made the right pair, but the use of incorrect tense “arrives” and “has” makes it grammatically incorrect. Similarly, parts C and F could make a right pair had there been no article “the” in part F.

Therefore, the correct answer choice is option B.

156. **Direction:** In this question, two columns I and II and three sentences are given, which are divided into two parts. Column I (A, B and C) consists of first half of each sentence and Column II (D, E and F) consists of second half of each sentence. Match column I with column II, so that the sentences formed are both meaningful and grammatically correct. Choose the option as your answer.

I.

A) I have never seen such a beautiful landscape

B) You should stop procrastinating

C) Had it been raining the other day

II.

D) Before in my entire life

E) and get to the point

F) I have had coffee in the morning

B-E and C-F
A-D, B-E
A-F and C-D
B-D
A-E and C-D

Solution:

We must join two parts of a sentence in a way that they form a meaningful and grammatically correct sentence. We can clearly see that part A and D make a correct pair upon reading them together. Similarly, part B and E make a sentence together that is meaningfully and grammatically correct. However, parts C and F don't make a pair, as they are two different sentences suggesting two different events. Therefore, the correct answer choice is option B.

157. **Direction:** In the following question, a word is given, which has been used in the three statements given below it. Identify the statement(s) in which the word fits contextually to convey a logical meaning.

Current

1) The **current** situation seems to be out of control for the government.
2) The number of **current** in the forest are on a decline as forest fires keep on occurring.
3) The bulb completes the circuit which then lets the **current** flow through it making the bulb glow.
Only 1
Only 2
Both 1 and 2
Both 1 and 3
All 1, 2 and 3

Solution:

Currentmeans "belonging to current times".
Currentalso refers to a flow of electricity. Both 1 and 3 satisfy the grammatical rule and make proper sense whereas 2 doesn't.
Currentshould be replaced with 'trees' in sentence 2.
Thus, the correct answer is option D.

158. **Direction:** In the following question, a word is given, which has been used in the three statements given below it. Identify the statement(s) in which the word fits contextually to convey a logical meaning.

Foil

1) Putting sandwiches in a **foil** ensures it stays warm for a longer period of time and continues to be edible.
2) The plane **foil** over the building much to the disbelief of people passing by.
3) They learned about the role of a dramatic **foil** in English class.
Only 1
Only 3
Both 1 and 2
Both 1 and 3
All 1, 2 and 3

Solution:

"Foil" refers to a metal hammered into a thin sheet.
It also refers to prevent a plan from taking place.
Both 1 and 3 make sense when used in the sentence.
In statement 2, "foil" must be replaced with ‘fell’.

159. **Direction:** In the following question, a word is given, which has been used in the three statements given below it. Identify the statement(s) in which the word fits contextually to convey a logical meaning.

Grate
1) At the bottom of the kiln is a **grate** of iron bars, and on this wood and coke are piled to start the fire.
2) He kept staring at her and it began to **grate** on her nerves.
3) We are all **to a grate extent** the products of our culture.
Only 1
Only 3
Both 1 and 2
Both 2 and 3
All 1, 2 and 3

Solution:

Grate can be used both as noun and a verb.

When used as a verb it means to have an irritating effect, as used in sentence 2.

When used as a noun it refers to a metal frame for holding fuel in a fireplace or furnace, as in sentence 1.

Grate can never be used as an adjective as used in sentence 3. It should be *great* in sentence 3.

Hence, the correct answer is C.

160. **Direction:** In the following question, a word is given, which has been used in the three statements given below it. Identify the statement(s) in which the word fits contextually to convey a logical meaning.

Wound
1) Removing the splinters from the **wound** was a long and painful process.
2) The outer walls looked likely to tumble down in a stiff **wound**.
3) Over there is even a young mother pushing her daughter in a stroller and barely looking **wound**.
Only 1
Only 3
Both 1 and 2
Both 2 and 3
All 1, 2 and 3

Solution:

“Wound” refers toan injury to a person's feelings or reputation, as used in sentence, as used in sentence 1.

“Wound” is also a past participle form of the verb “wind”.

Walls do not have wounds and neither can a person look wound.

Hence, the correct answer is A.

Computer knowledge

161. The computer that process both analog and digital is called ___.

Analog computer
Digital computer

Hybrid computer
Mainframe computer
None of these

Solution:

Hybrid computersare computers that exhibit features of analog computers and digital computers.
The digital component normally serves as the controller and provides logical and numerical operations, while the analog component often serves as a solver of differential equations and other mathematically complex equations.

162. ……. are used to identify a user who returns to a Website.

Cookies
Plug-ins
Scripts
ASPs
None of these

Solution:

An HTTP **cookie** is a small piece of data sent from a website and stored in a user's web browser while the user is browsing that website.

163. If we want to share a broadband Internet connection. We must install a (n) _____ on a network

router
modem
node
cable
None of these

Solution:

A **router** is a device that forwards data packets along networks. A **router** is connected to at least two networks. Routers are located at gateways, the places where two or more networks connect.

164. An image editing software in which we can draw and edit images is?

PageMaker
MS Access
Corel Draw
Photo Image
Front page

Solution:

Corel Draw is a vector graphics editor. A **vector graphics editor** is a computer program that allows users to compose and edit vector graphics images interactively on a **computer**.

165. Who among the following is the father of super computer?

Charles Babbage
Bill gates
Steve Jobs
Seymour Cray
None of these

Solution:

Seymour Roger Cray was an American electrical engineer and **supercomputer architect** who designed **a series of computers** that were the **fastest in the world** for decades and founded Cray Research which built many of these machines.

166. The term used to define all input and output devices in a computer system is _____

Monitor
Software
Shared resources
Hardware
None of these

Solution:

Computer hardware is the collection of physical parts of a computer system. This includes both input as well output devices. It not only includes computer case, monitor, keyboard and mouse but also all the parts inside the computer case, such as the hard disk drive, motherboard, video card and many others.

167. In processing cheques, which of the following PO techniques have Indian banks traditionally followed?

VRT
OMR
OCR
Barcode
MICR

Solution:

Magnetic Ink Character Recognition Code (**MICR** Code) is a **character-recognition technology** used mainly by the **banking industry** to ease the processing and clearance of **cheques** and other **documents**.

168. Diagrammatic or symbolic representation of an algorithm is called _____.

Data-Flow diagram
E-R diagram
Flowchart
Software
None of these

Solution:

A **flowchart** is a type of diagram that represents an **algorithm**, **workflow** or process, showing **the steps as boxes** of various kinds, and their order by **connecting** them with arrows. This **diagrammatic** representation illustrates a **solution model** to a given problem.

169. Which protocol provides e-mail facility among different hosts?

FTP
SMTP

TELNET
SNMP
None of these

Solution:

SMTP (Simple Mail Transfer Protocol) is a TCP/IP protocol used in sending and receiving e-mail. However, since it is limited in its ability to queue messages at the receiving end, it is usually used with one of two other protocols, POP3 or IMAP that let the user save messages in a server mailbox and download them periodically from the server. SMTP usually is implemented to operate over Internet **port 25**.
Many mail servers now support **Extended Simple Mail Transfer Protocol** (ESMTP), which allows multimedia files to be delivered as e-mail.

170. What database key links one table to another?

Primary key
Foreign key
Secondary key
Relational key
None of these

Solution:

In the context of relational databases, a foreign key is a field (or collection of fields) in one table that uniquely identifies a row of another table or the same table. In simpler words, the foreign key is defined in a second table, but it refers to the primary key in the first table.

171. What program is used in MS-Word to check the spelling?

Spellpro
Spellcheck
Outlook Express
All of these
None of these

Solution:

Spell check is an **application program** that flags words in a document that may not be spelled correctly. Spell checkers capable of operating on a **block of text,** such as a **word processor, email client,** electronic dictionary, or **search engine.**

172. When you save the following the data would remain intact even after turning off computer?

RAM
Motherboard
Secondary Storage Device
Primary Storage Device
None of these

Solution:

A second storage device is a non-volatile device that holds data until it is deleted or overwritten. In these devices, the data would remain intact even after turning off computer.

173. Which of the following places the common data elements in order from smallest to largest?

Character, file, record, field, database
Character, record, field, file, database
Character, field, record, file, database
Bit, byte, character, record, field, file, database
None of the above

Solution:

Character is in smallest size which is filled in a field, various field make record and record has been put in a form of file. The collection of several files is called database.

174. Which of the following transactions requires maximum security?

Error correction codes
Master file manipulation

Batch control/transactions
Normal transactions
None of these

Solution:

Master file manipulations require maximum security. High level security access controls should be placed to check the authority and authenticity of the individuals or processes making manipulation to master files.

175. What is full form of SMPS?

Switch Mode Power Supply
Simple Mode Power Supply
Storage Mode Power Supply
Storage Mode Power Shortage
None of these

Solution:

A **switched-mode power** supply is an electronic **power supply** that incorporates a switching regulator to convert electrical power efficiently.

176. Another word for the CPU is_____.

microprocessor
Execute
microchip
Decode
None of these

Solution:

CPUs are also known as **microprocessors**, meaning they are contained on a single **integrated circuit** (IC) chip.
An IC that contains a CPU may also contain memory, peripheral interfaces, and other components of a computer; such integrated devices are variously called microcontrollers or systems on a chip (SoC).

177. _____ is a full form of SQL.

Standard query language
Sequential query language
Structured query language
Server side query language
None of these

Solution:

SQL(Structured Query Language) is a**standard interactive and programming language**for getting information from and**updating**a database.

178. Unsolicited commercial email is commonly known as_____.

spam
junk
hoaxes
hypertext
None of these

Solution:

unsolicited commercial e-mail (UCE) is a legal term used to describe an **electronic promotional message** sent to a consumer without the **consumer's prior request** or consent. In the vernacular, this kind of e-mail message is called **spam**.

179. The distinguishable parts of a record are called____.

Files
Data
Fields
Database
None of these

Solution:

In computer science, data that has several parts, known as a record, can be divided into fields.
Each record consists of several fields; the fields of all records form the columns.
Examples of fields: name, gender, hair colour.
180. A computer assisted method for the recording and analyzing of existing or hypothetical systems is _____.

Data transmission
Data flow
Data capture
Data processing
None of the above

Solution:

Data flows in the computer through the components of the computer.
For example, data may be **fed to a computer** or may enter through the input devices, processed then it may leave through output devices such as printers, **USB cables** or wireless transfers.

181. Most mail programs automatically complete the following two parts in an e-mail

From : and Body :
From : and Date :
From : and To :
From : and Subject :
None of these

Solution:

Most mail programs automatically complete the following two parts in an e-mail
From: and Date :

182. Which protocol does Ping use?

TCP
ARP
ICMP
BootP
None of these

Solution:

Ping operates by sending **Internet Control Message Protocol** (ICMP) echo request packets to the target host and waiting for an ICMP echo reply.
Note:- Ping is a **computer network administration software** utility used to test the reachability of a host on an **Internet Protocol** (IP) network and to measure the

round-trip time for messages sent from the originating host to a destination computer and back.

183. Which of the following font effect is not available in MS- PowerPoint Font dialog box?

Shadow
Strike-Through
Underline
Emboss
None of these

Solution:

Strike-Through font effect is not available in MS- PowerPoint Font dialog box.

184. Which of the following is an active cell in Excel?

Current Cell
Formula
Range
Cell Address
None of these

Solution:

An **active cell** is a **rectangular box**, highlighting the cell in a **spreadsheet**.
Note: It helps to identify what cell is being working with and where data will be entered.Only one cell can be an active cell at a time.

185. What database key uniquely identifies a record within a table?

Primary key
Foreign key
Secondary key
Relational key
None of these

Solution:

A **primary key**, also called a **primary** keyword, is a**key** in a relational database that is unique for each record. It is a unique identifier, such as a driver license number, telephone number (including area code), or vehicle identification number (VIN). A relational database must always have one and only one **primary key**.

186. Packet transmission is related to ____.

Application layer
Data link layer
Network layer
Transport layer
None of these

Solution:

Algorithm and protocols in the network layer are responsible for identifying the optional path to route and reliably deliver data packets from their source networks to their destination networks.

187. _____defines the structure of a relation which consists of a fixed set of attribute-domain pairs.

Instance
Schema
Program
Super Key
None of these

Solution:

Schema is a set of formulas called **integrity constraints** imposed on a database. These integrity constraints ensure compatibility between **parts** of **the schema**.

188. Which PowerPoint view displays each slide of the presentation as a thumbnail and is useful for rearranging slides?

Slide Master
Slide Show
Slide Sorter

Notes Page
Slide Design

Solution:

Slide Sorter in PowerPoint is a nice feature that allow us to make global changes to the PowerPoint presentation as well as reviewing the overall presentation with small slide thumbnails.

189. The sharing of a medium and its path by two or more devices is called _____.

Modulation
Demodulation
Multiplexing
Demultiplexing
None of these

Solution:

In telecommunications and computer networks, multiplexing (sometimes contracted to muxing) is a method by which multiple analog or digital signals are combined into one signal over a shared medium. The aim is to share an expensive resource. For example, in telecommunications, several telephone calls may be carried using one wire.

190. The process of transferring files from a computer on the internet to your computer is called _____.

Downloading
uploading
FTP
JPEG
Downsizing

Solution:

Downloading is the transmission of a file from **one computer system to another**, to download a file is to request it from another computer (or from a **Web page** on another computer) and to receive it.

191. Kernel is a central component of _____.

A part of CPU
An operating system
A hardware
A register
None of these

Solution:

Kernel is a central component of an **operating system** which acts as an interface between the **user applications** and the **hardware**. It is also called as **the heart** of the operating system.

192. The altering of data so that it is not usable unless the changes are undone is ____.

Biometrics
Compression
Encryption
Ergonomics
None of these

Solution:

Encryption is the process of **encoding messages** or information in such a way that only authorized parties can read it. **Encryption** does not of itself prevent interception, but denies the message content to the **interceptor**.

193. In Excel, this is a prerecorded formula that provides a shortcut for complex calculations.

Value
Data Series
Function
Field
None of these

Solution:

Function is a prerecorded formula that provides a shortcut for complex calculations

194. A repair for a known software bug, usually available at no charge on the internet, is called a(n) _____.

version
patch
tutorial
FAQ
None of these

Solution:

A**patch**is a piece of software designed to update a**computer program**or its supporting data to**fix**or improve it.

195. Hardware devices that are not part of the main computer system and are often added later to the system are_____.

clip art
Highlight
Execute
peripherals
None of these

Solution:

A **peripheral device** is generally defined as any **auxiliary device** such as a **computer mouse** or **keyboard** that connects to and works with the computer in some way.
Note:- Other **examples** of peripherals are **image scanners**, **tape drives,** microphones, loudspeakers, webcams, and digital cameras.

196. Vertical space between lines of text in document is called____.

double space
line gap
single space

vertical spacing
line space

Solution:

Vertical space between lines of text in a document is called **line space**.

197. _____is a power saving state designed primarily for laptops. It saves your open documents and programs to your hard disk and turns off our computer.

Sleep
Hibernate
Suitcase
Snooze
None of these

Solution:

Hibernation is a power-saving state designed primarily for laptops.While **sleep** puts your work and **settings in memory** and draws a small amount of power, hibernation puts your **open documents** and programs on your hard disk and then turns off your computer.

198. Which of the following search engines continuously sends out that starts on a homepage of a server and pursue all links stepwise ?

Spiders
Packets
Cookies
asPaddle
None of these

Solution:

A programme that automatically fetches Web pages. Spiders are used to feed pages to search engines. It’s called a spider because it crawls over the Web another term for these programmes is Web Crawler.

199. _____ is when the computer is turned on and the operating system is loading.

Booting
Spoofing
Formatting
Initiating
Loading

Solution:

In computing, booting (or booting up) is the initialization of a computerized system

200. ADSL is the abbreviation of_____.

Asymmetric Dual System Line
Asymmetric Dual Subscriber Line
Asymmetric Digital Subscriber Line
Asymmetric Digital System Line
None of these

Solution:

Asymmetric digital subscriber line (ADSL) is a type of **digital subscriber line** (DSL) technology, a data communications technology that enables faster data transmission over **copper telephone lines** than a conventional voice band modem can provide.