

## CAT 2019 Question Paper with Solution Slot 1 DILR

1.

|||Common|||

**Direction:** A supermarket has to place 12 items (coded A to L) in shelves numbered 1 to 16. Five of these items are types of biscuits, three are types of candies and the rest are types of savouries. Only one item can be kept in a shelf. Items are to be placed such that all items of same type are clustered together with no empty shelf between items of the same type and at least one empty shelf between two different types of items. At most two empty shelves can have consecutive numbers.

The following additional facts are known.

- 1) A and B are to be placed in consecutively numbered shelves in increasing order.
- 2) I and J are to be placed in consecutively numbered shelves both higher numbered than the shelves in which A and B are kept.
- 3) D, E and F are savouries and are to be placed in consecutively numbered shelves in increasing order after all the biscuits and candies.
- 4) K is to be placed in shelf number 16.
- 5) L and J are items of the same type, while H is an item of a different type.
- 6) C is a candy and is to be placed in a shelf preceded by two empty shelves.
- 7) L is to be placed in a shelf preceded by exactly one empty shelf.

|||End|||

In how many different ways can the items be arranged on the shelves?

- A. 2
- B. 4
- C. 1
- D. 8

Answer ||| D

Solution |||

We can put I, J in biscuits interchangeably and G, H in candies interchangeably. Therefore, we obtain 4 cases for each of the above cases and the total ways in which items can be arranged on the shelves is 8.

The correct option is D.

All items of the same type are clustered together. Hence, from points 3 and 4 we can say that K is also a savoury and D, E, F, and K can be placed in the top four shelves in increasing order.

From point 5 and 6, L, J, and I belong to the same group and H belongs to the remaining group.

From point 6, C is a candy. Since there are only three candies, it cannot belong to the group of L, J, and I as they are already three in number. Hence, the group of candies are C, H, and G.

The remaining group of L, J, I, A, and B belongs to biscuits.

Since L is the starting shelf of biscuits and from point 1 and 2 we can place L, A, and B in increasing order below I and J.

Thus, we obtain the following table:

Shelf number	Case 1	Items	Case 2	Items
16	K	savouries	K	savouries
15	F		F	
14	E		E	
13	D		D	
12				
11	J/I	Biscuits	G/H	Candies
10	I/J		H/G	
9	B		C	
8	A			
7	L			
6			J/I	Biscuits
5	G/H	Candies	I/J	
4	H/G		B	
3	C		A	
2			L	
1				

2. Which of the following items is not a type of biscuit?

- A. G
- B. A
- C. B
- D. L

Answer ||| A

Solution |||

From the table it is clear that from the given options G is not a biscuit.

**The correct option is A.**

All items of the same type are clustered together. Hence, from points 3 and 4 we can say that K is also a savoury and D, E, F, and K can be placed in the top four shelves in increasing order.

From point 5 and 6, L, J, and I belongs to the same group and H belongs to the remaining group.

Form point 6, C is a candy. Since there are only three candies, it cannot belong to the group of L, J, and I as they are already three in number. Hence, the group of candies are C, H, and G.

The remaining group of L, J, I, A, and B belongs to bBiscuits.

Since L is the starting shelf of biscuits and from point 1 and 2 we can place L, A, and B in increasing order below I and J.

Thus, we obtain the following table:

Shelf number	Case 1	Items	Case 2	Items
16	K	savouries	K	savouries
15	F		F	
14	E		E	
13	D		D	
12				
11	J/I	Biscuits	G/H	Candies
10	I/J		H/G	
9	B		C	
8	A			
7	L			
6			J/I	Biscuits
5	G/H	I/J		
4	H/G	B		
3	C	A		
2		L		
1				

3. Which of the following can represent the numbers of the empty shelves in a possible arrangement?

- A. 1,2,6,12
- B. 1,2,8,12
- C. 1,5,6,12

D. 1,7,11,12

Answer ||| A

Solution |||

From the table we can say that from the given options shelves 1,2,6, and 12 represent the numbers of the empty shelves in a possible arrangement.

**The correct option is A.**

All items of the same type are clustered together. Hence, from points 3 and 4 we can say that K is also a savoury and D, E, F, and K can be placed in the top four shelves in increasing order.

From point 5 and 6, L, J, and I belongs to the same group and H belongs to the remaining group.

From point 6, C is a candy. Since there are only three candies, it cannot belong to the group of L, J, and I as they are already three in number. Hence, the group of candies are C, H, and G.

The remaining group of L, J, I, A, and B belongs to biscuits.

Since L is the starting shelf of biscuits and from point 1 and 2 we can place L, A, and B in increasing order below I and J.

Thus, we obtain the following table:

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13	D			
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11	J/I	Biscuits	G/H	Candies
10	I/J			
9	B			
8	A			
7	L			
6			J/I	Biscuits
5	G/H			
4	H/G			
3	C			
2				
1			L	

4. Which of the following statements is necessarily true?

- A. There are two empty shelves between the biscuits and the candies.
- B. All biscuits are kept before candies.
- C. All candies are kept before biscuits.
- D. There are at least four shelves between items B and C.

Answer ||| D

Solution |||

From the table we cannot conclude the options 1, 2, and 3 with surety as they are depicted in a only few cases. On the other hand, we can confirm that the number of shelves between items B and C will be at least four because in all the cases the items B and C will be in either shelves 3 and 9 or in shelves 4 and 9.

**The correct option is D.**

All items of the same type are clustered together. Hence, from points 3 and 4 we can say that K is also a savoury and D, E, F, and K can be placed in the top four shelves in increasing order.

From point 5 and 6, L, J, and I belongs to the same group and H belongs to the remaining group.

Form point 6, C is a candy. Since there are only three candies, it cannot belong to the group of L, J, and I as they are already three in number. Hence, the group of candies are C, H, and G.

The remaining group of L, J, I, A, and B belongs to bBiscuits.

Since L is the starting shelf of biscuits and from point 1 and 2 we can place L, A, and B in increasing order below I and J.

Thus, we obtain the following table:

Shelf number	Case 1	Items	Case 2	Items
16	K	savouries	K	savouries
15	F		F	
14	E		E	
13	D		D	
12				
11	J/I	Biscuits	G/H	Candies
10	I/J		H/G	
9	B		C	
8	A			
7	L			
6			J/I	Biscuits
5	G/H		I/J	
4	H/G	Candies	B	
3	C		A	
2			L	
1				

###TOPIC###Logical Reasoning||Logical Sequence||Logical Sequence###

5.

||Common||

**Direction:** Six players – Tanzi, Umeza, Wangdu, Xyla, Yonita and Zeneca competed in an archery tournament. The tournament had three compulsory rounds, Rounds 1 to 3. In each round every player shot an arrow at a target. Hitting the centre of the target (called bull’s eye) fetched the highest score of 5. The only other possible scores that a player could achieve were 4, 3, 2 and 1. Every bull’s eye score in the first three rounds gave a player one additional chance to shoot in the bonus rounds, Rounds 4 to 6. The possible scores in Rounds 4 to 6 were identical to the first three.

A player’s total score in the tournament was the sum of his/her scores in all rounds played by him/her. The table below presents partial information on points scored by the players after completion of the tournament. In the table, NP means that the player did not participate in that round, while a hyphen means that the player participated in that round and the score information is missing.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi		4		5	NP	NP
Umeza				1	2	NP
Wangdu		4		NP	NP	NP
Xyla				1	5	
Yonita			3	5	NP	NP
Zeneca				5	5	NP

The following facts are also known.

1) Tanzi, Umeza and Yonita had the same total score.

- 2) Total scores for all players, except one, were in multiples of three.
- 3) The highest total score was one more than double of the lowest total score.
- 4) The number of players hitting bull's eye in Round 2 was double of that in Round 3
- 5) Tanzi and Zeneca had the same score in Round 1 but different scores in Round 3

|||End|||

What was the highest total score?

- A. 21
- B. 23
- C. 25
- D. 24

Answer ||| C

Solution |||

### The correct option is C

The total number of bull's eyes in the first three rounds are 9. We can calculate it by calculating the number of shoots in round 4, 5, and 6.

Since Xyla played all the six rounds and we know that hitting bull's eye score in the first three rounds gave a player one additional chance to shoot in the bonus rounds, rounds 4 to 6, we can say that Xyla scored a bull's eye in all the first three rounds.

Tanzi has scored one bull's eye in the first three rounds and from point 5, Tanzi and Zeneca hit the bull's eye in round 1 because had Tanzi hit a bull's eye in round 3 then Zeneca would have hit the bull's eye in round 1 and this would have violated the condition that both have the same score in the first round.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza				1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita			3	5	NP	NP
Zeneca	5			5	5	NP

Number of bull's eyes in all rounds to satisfy the condition of point 4 are (6,2,1) or (3,4,2).. Wangdu does not hit any bull's eye, the case (6,2,1) can be eliminated and the number of bull's eyes in rounds 1, 2, and 3 are 3, 4, and 2 respectively. Hence, Umeza, Yonita, and Zeneca also hit bull's eye in round 2 as four people hit bull's eye in round 2. Moreover, we can also say that Umeza hit the bull's eye in round 3 as round one.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza		5	5	1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita		5	3	5	NP	NP
Zeneca	5	5		5	5	NP

The following table shows the range of scores of 6 players.

	Range
Tanzi	15-18
Umeza	14-17
Wangdu	6-12
Xyla	22-25
Yonita	14-17
Zeneca	21-24

From given point 1 and 2, the total scores of Tanzi, Umeza, and Yonita was 15 as only one of them can have a score which is not a multiple of 3. Now we also can fill up the scores of these three for remaining rounds.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu		4		NP	NP	NP	
Xyla	5	5	5	1	5		
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5		5	5	NP	

The lowest possible score is 12 (of Wangdu) as any score below that would raise the following problems:

If the lowest score is 11: according to point 3 highest would be 23 and then point 2 would be violated

If the lowest score is 10: according to point 3 highest score would be 21 and that is not possible as Xyla has a range of score 22-25.

Since lowest score is 12 therefore according to point 3 highest score would be 25 and that is possible only for Xyla. Further, Zeneca's total score is 24 as it should be a multiple of 3 and it cannot be 21 as she cannot score 1 in round 3 because of point 5.



	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu	4	4	4	NP	NP	NP	12
Xyla	5	5	5	1	5	4	25
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5	4	5	5	NP	24

From the table we can say that the highest total score is 25.

6. What was Zeneca's total score?

- A. 24
- B. 22
- C. 23
- D. 21

Answer ||| A

Solution |||

From the above derived table Zeneca's total score is 24.

**The correct option is A**

The total number of bull's eyes in the first three rounds are 9. We can calculate it by calculating the number of shoots in round 4, 5 and 6. Since Xyla played all the six rounds and we know that hitting bull's eye score in the first three rounds gave a player one additional chance to shoot in the bonus rounds, rounds 4 to 6, we can say that Xyla scored bull's eye in all the first three rounds.

Tanzi has scored one bull's eye in first three rounds and from point 5, Tanzi and Zeneca hit the bull's eye in round 1 because had Tanzi hit a bull's eye in round 3 then Zeneca would have hit the bull's eye in round 1 and this would have violated the condition that both have same score in first round.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza				1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita			3	5	NP	NP
Zeneca	5			5	5	NP

Number of bull's eyes in all rounds to satisfy the condition of point 4 are (6,2,1) or (3,4,2).. Wangdu does not hit any bull's eye, the case (6,2,1) can be eliminated

and the number of bull's eyes in each round 1, 2, and 3 are 3, 4 and 2 respectively. Hence, Umeza, Yonita and Zeneca also hit bull's eye in round 2 as four people who hit bull's eye in round 2. Moreover, we can also say that Umeza hit the bull's eye in round 3 as round one.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza		5	5	1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita		5	3	5	NP	NP
Zeneca	5	5		5	5	NP

The following table shows the range of scores of 6 players.

	Range
Tanzi	15-18
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Yonita	14-17
Zeneca	21-24

From points 1 and 2, the total scores of Tanzi, Umeza and Yonita was 15 as only one of them can have a score which is not a multiple of 3. Now we also can fill up the scores of these three for the remaining rounds.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu		4		NP	NP	NP	
Xyla	5	5	5	1	5		
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5		5	5	NP	

The lowest possible score is 12 of Wangdu as below that would raise the following problems:

If the lowest score is 11: according to point 3 highest would be 23 and then point 2 would be violated

If the lowest score is 10: according to point 3 the highest score would be 21 and that is not possible as Xyla has a range of score 22-25.

Since the lowest score is 12 therefore according to point 3 the highest score would be 25 and that is possible only for Xyla. Further, Zeneca's total score is 24 as it should be a multiple of 3 and it cannot be 21 as she cannot score 1 in round 3 because of point 5.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu	4	4	4	NP	NP	NP	12
Xyla	5	5	5	1	5	4	25
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5	4	5	5	NP	24

7. Which of the following statements is true?

- A. Xyla's score was 23
- B. Xyla was the highest scorer.
- C. Zeneca was the highest scorer.
- D. Zeneca's score was 23

Answer ||| B

Solution |||

From the above derived table we can say that Xyla was the highest scorer.

**The correct option is B**

The total number of bull's eyes in the first three rounds are 9. We can calculate it by calculating the number of shoots in round 4, 5, and 6. Since Xyla played all the six rounds and we know that hitting bull's eye score in the first three rounds gave a player one additional chance to shoot in the bonus rounds, rounds 4 to 6, we can say that Xyla scored bull's eye in all the first three rounds.

Tanzi has scored one bull's eye in first three rounds and from point 5, Tanzi and Zeneca hit the bull's eye in round 1 because had Tanzi hit a bull's eye in round 3 then Zeneca would have hit the bull's eye in round 1 and this would have violated the condition that both have same score in first round.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza				1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita			3	5	NP	NP
Zeneca	5			5	5	NP

Number of bull's eyes in all rounds to satisfy the condition of point 4 are (6,2,1) or (3,4,2). Wangdu does not hit any bull's eye, the case (6,2,1) can be eliminated and the number of bull's eyes in each round 1, 2, and 3 are 3, 4 and 2 respectively. Hence, Umeza, Yonita and Zeneca also hit bull's eye in round 2 as four people who

hit bull's eye in round 2. Moreover, we can also say that Umeza hit the bull's eye in round 3 as round one.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza		5	5	1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita		5	3	5	NP	NP
Zeneca	5	5		5	5	NP

The following table shows the range of scores of 6 players.

	Range
Tanzi	15-18
Umeza	14-17
Wangdu	6-12
Xyla	22-25
Yonita	14-17
Zeneca	21-24

From points 1 and 2, the total scores of Tanzi, Umeza and Yonita was 15 as only one of them can have a score which is not a multiple of 3. Now we also can fill up the scores of these three for the remaining rounds.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu		4		NP	NP	NP	
Xyla	5	5	5	1	5		
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5		5	5	NP	

The lowest possible score is 12 of Wangdu as below that would raise the following problems:

If the lowest score is 11: according to point 3 highest would be 23 and then point 2 would be violated

If the lowest score is 10: according to point 3 the highest score would be 21 and that is not possible as Xyla has a range of score 22-25.

Since the lowest score is 12 therefore according to point 3 the highest score would be 25 and that is possible only for Xyla. Further, Zeneca's total score is 24 as it should be a multiple of 3 and it cannot be 21 as she cannot score 1 in round 3 because of point 5.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu	4	4	4	NP	NP	NP	12
Xyla	5	5	5	1	5	4	25
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5	4	5	5	NP	24

8. What was Tanzi's score in Round 3?

- A. 5
- B. 3
- C. 4
- D. 1

Answer ||| D

Solution |||

From the table we can say that Tanzi's score in round 3 was 1.

**The correct option is D**

The total number of bull's eyes in the first three rounds are 9. We can calculate it by calculating the number of shoots in round 4, 5 and 6.

Since Xyla played all the six rounds and we know that hitting bull's eye score in the first three rounds gave a player one additional chance to shoot in the bonus rounds, rounds 4 to 6, we can say that Xyla scored bull's eye in all the first three rounds.

Tanzi has scored one bull's eye in first three rounds and from point 5, Tanzi and Zeneca hit the bull's eye in round 1 because had Tanzi hit a bull's eye in round 3 then Zeneca would have hit the bull's eye in round 1 and this would have violated the condition that both have same score in first round.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza				1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita			3	5	NP	NP
Zeneca	5			5	5	NP

Number of bull's eyes in all rounds to satisfy the condition of point 4 are (6,2,1) or (3,4,2).. Wangdu does not hit any bull's eye, the case (6,2,1) can be eliminated

and the number of bull's eyes in each round 1, 2, and 3 are 3, 4 and 2 respectively. Hence, Umeza, Yonita and Zeneca also hit bull's eye in round 2 as four people who hit bull's eye in round 2. Moreover, we can also say that Umeza hit the bull's eye in round 3 as round one.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
Tanzi	5	4		5	NP	NP
Umeza		5	5	1	2	NP
Wangdu		4		NP	NP	NP
Xyla	5	5	5	1	5	
Yonita		5	3	5	NP	NP
Zeneca	5	5		5	5	NP

The following table shows the range of scores of 6 players.

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From points 1 and 2, the total scores of Tanzi, Umeza and Yonita was 15 as only one of them can have a score which is not a multiple of 3. Now we also can fill up the scores of these three for the remaining rounds.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu		4		NP	NP	NP	
Xyla	5	5	5	1	5		
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5		5	5	NP	

The lowest possible score is 12 of Wangdu as below that would raise the following problems:

If the lowest score is 11: according to point 3 highest would be 23 and then point 2 would be violated

If the lowest score is 10: according to point 3 the highest score would be 21 and that is not possible as Xyla has a range of score 22-25.

Since the lowest score is 12 therefore according to point 3 the highest score would be 25 and that is possible only for Xyla. Further, Zeneca's total score is 24 as it should be a multiple of 3 and it cannot be 21 as she cannot score 1 in round 3 because of point 5.

	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Total
Tanzi	5	4	1	5	NP	NP	15
Umeza	2	5	5	1	2	NP	15
Wangdu	4	4	4	NP	NP	NP	12
Xyla	5	5	5	1	5	4	25
Yonita	3	5	3	5	NP	NP	15
Zeneca	5	5	4	5	5	NP	24

###TOPIC###Logical Reasoning||Tournaments||Tournaments###

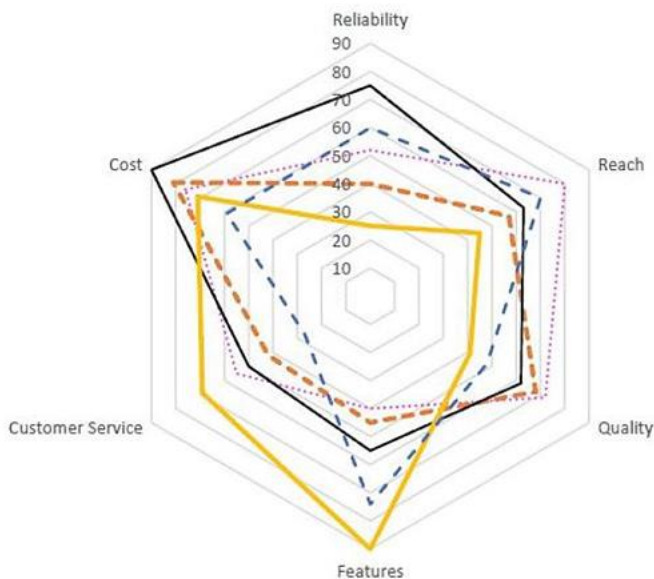
9.

||Common||

**Direction:** Five vendors are being considered for a service. The evaluation committee evaluated each vendor on six aspects – Cost, Customer Service, Features, Quality, Reach, and Reliability.

Each of these evaluations are on a scale of 0 (worst) to 100 (perfect). The evaluation scores on these aspects are shown in the radar chart. For example, Vendor 1 obtains a score of 52 on Reliability, Vendor 2 obtains a score of 45 on Features and Vendor 3 obtains a score of 90 on Cost.

..... Vendor 1    - - - Vendor 2    — Vendor 3    — Vendor 4    - - - Vendor 5



||End||

On which aspect is the median score of the five vendors the least?

- A. Customer Service
- B. Reliability
- C. Quality

D. Cost

Answer ||| A

Solution |||

From the following table we can say that the least median score of the five vendors is in Customer Service.

**The correct option is A**

	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5	Median score
Reliability	52	40	75	26	60	60
Cost	76	80	90	70	60	76
Customer Service	56	41	50	70	28	50
Features	40	45	55	90	75	55
Quality	71	69	61	40	49	61
Reach	80	58	62	45	70	62
<b>Total</b>	<b>375</b>	<b>333</b>	<b>393</b>	<b>341</b>	<b>342</b>	

10. A vendor's final score is the average of their scores on all six aspects. Which vendor has the highest final score?

- A. Vendor 3
- B. Vendor 2
- C. Vendor 4
- D. Vendor 1

Answer ||| A

Solution |||

From the table we can say that Vendor 3 had the highest final score.

**The correct option is A**

	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5	Median score
Reliability	52	40	75	26	60	60
Cost	76	80	90	70	60	76
Customer Service	56	41	50	70	28	50
Features	40	45	55	90	75	55
Quality	71	69	61	40	49	61
Reach	80	58	62	45	70	62
<b>Total</b>	<b>375</b>	<b>333</b>	<b>393</b>	<b>341</b>	<b>342</b>	



11. List of all the vendors who are among the top two scorers on the maximum number of aspects is:

- A. Vendor 1 and Vendor 5
- B. Vendor 1 and Vendor 2
- C. Vendor 2 and Vendor 5
- D. Vendor 2, Vendor 3, and Vendor 4

Answer ||| A

Solution |||

From the table we can say that Vendor 1 and Vendor 5 are among the top two scorers on the maximum number of aspects.

**The correct option is A**

	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5	Median score
Reliability	52	40	75	26	60	60
Cost	76	80	90	70	60	76
Customer Service	56	41	50	70	28	50
Features	40	45	55	90	75	55
Quality	71	69	61	40	49	61
Reach	80	58	62	45	70	62
<b>Total</b>	<b>375</b>	<b>333</b>	<b>393</b>	<b>341</b>	<b>342</b>	

12. List of all the vendors who are among the top three vendors on all six aspects is:

- A. Vendor 1 and Vendor 3
- B. Vendor 1
- C. None of the Vendors
- D. Vendor 3

Answer ||| D

Solution |||

From the table we can say that Vendor 3 is among the top three vendors on all six aspects.

**The correct option is D**

	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5	Median score
Reliability	52	40	75	26	60	60
Cost	76	80	90	70	60	76
Customer Service	56	41	50	70	28	50
Features	40	45	55	90	75	55
Quality	71	69	61	40	49	61
Reach	80	58	62	45	70	62
<b>Total</b>	<b>375</b>	<b>333</b>	<b>393</b>	<b>341</b>	<b>342</b>	

13.

|||Common|||

**Direction:** The following table represents addition of two six-digit numbers given in the first and the second rows, while the sum is given in the third row. In the representation, each of the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 has been coded with one letter among A, B, C, D, E, F, G, H, J, K, with distinct letters representing distinct digits.

		B	H	A	A	G	F
+		A	H	J	F	K	F
	A	A	F	G	C	A	F

|||End|||

Which digit does the letter A represent?

Answer ||| 1

Solution |||

A represents 1.

**The correct answer is 1.**

**Step 1** –  $F + F = F$ . Hence,  $F = 0$

**Step 2** – The value of H is 5 because only by adding 5 to itself we get the units digit as 0 with 1 getting carry forwarded.

**Step 3** – When we add any six-digit number to a six-digit number and we get a seven digit number then that seventh digit will always be 1.

**Step 4** –The value of B would be 9 because only by adding 9 to 1 with 1 carry forward can make the sum as 11.

**Step 5** – The value of C would be 2 because adding 1 and 0 with carry forward 1 we get the sum as 2.

**Step 6** –  $G + K = 11$  and  $1 + J = G$ .

Since 9, 2, and 5 are already taken by B, C, and H, the value of G, K would be either 3,8 or 4,7.

**Step 7** – Let's put the values and make the cases.

$$9511\_0 + 15\_0\_0 = 110\_210$$

$951130 + 15\_080 = 1103210$  : Not possible as we cannot put the value of the remaining as 2 because we already have C as 2.

$$951180 + 157030 = 1108210$$
 : Possible

$$951140 + 153070 = 1104210$$
 : Possible

$$951170 + 156040 = 1107210$$
 : Possible

Letter	Digit
A	1
B	9
C	2
F	0
G	
H	5
J	
K	

14. Which digit does the letter B represent?

Answer ||| 9

Solution |||

The value of B is 9

**The correct answer is 9.**

**Step 1** –  $F + F = F$ . Hence,  $F = 0$

**Step 2** – The value of H is 5 because only by adding 5 to itself we get the units digit as 0 with 1 getting carry forwarded.

**Step 3** – When we add any six-digit number to a six-digit number and we get a seven digit number then that seventh digit will always be 1.

**Step 4** –The value of B would be 9 because only by adding 9 to 1 with 1 carry forward can make the sum as 11.

**Step 5** – The value of C would be 2 because adding 1 and 0 with carry forward 1 we get the sum as 2.

**Step 6** –  $G + K = 11$  and  $1 + J = G$ .

Since 9, 2 and 5 are already taken by B, C and H, the value of G, K would be either 3,8 or 4,7.

**Step 7** – Let's put the values and make the cases

$$9511\_0 + 15\_0\_0 = 110\_210$$

$951130 + 15\_080 = 1103210$  : Not possible as we cannot put the value of the remaining as 2 because we already have C as 2.

$$951180 + 157030 = 1108210 \text{ : Possible}$$

$$951140 + 153070 = 1104210 \text{ : Possible}$$

$$951170 + 156040 = 1107210 \text{ : Possible}$$

Letter	Digit
A	1
B	9
C	2
F	0
G	
H	5
J	
K	

15. Which among the digits 3, 4, 6, and 7 cannot be represented by the letter D?

Answer ||| 7

Solution |||

From the given explanation we can see that digit 7 is there in every case, therefore the letter D cannot be represented by 7.

**The correct answer is 7.**

**Step 1** –  $F + F = F$ . Hence,  $F = 0$

**Step 2** – The value of H is 5 because only by adding 5 to itself we get the units digit as 0 with 1 getting carry forwarded.

**Step 3** – When we add any six-digit number to a six-digit number and we get a seven digit number then that seventh digit will always be 1.

**Step 4** –The value of B would be 9 because only by adding 9 to 1 with 1 carry forward can make the sum as 11.

**Step 5** – The value of C would be 2 because adding 1 and 0 with carry forward 1 we get the sum as 2.

**Step 6** –  $G + K = 11$  and  $1 + J = G$ .

Since 9, 2 and 5 are already taken by B, C and H, the value of G, K would be either 3,8 or 4,7.

**Step 7** – Let's put the values and make the cases

$$9511\_0 + 15\_0\_0 = 110\_210$$

$951130 + 15\_080 = 1103210$  : Not possible as we cannot put the value of the remaining as 2 because we already have C as 2.

$$951180 + 157030 = 1108210$$
 : Possible

$$951140 + 153070 = 1104210$$
 : Possible

$$951170 + 156040 = 1107210$$
 : Possible

Letter	Digit
A	1
B	9
C	2
F	0
G	
H	5
J	
K	

16.Which among the digits 4, 6, 7, and 8 cannot be represented by the letter G?

Answer ||| 6

Solution |||

From the given explanation in 14<sup>th</sup> question we can see that digit 6 cannot be represented by letter G.

**The correct answer is 6.**

**Step 1** –  $F + F = F$ . Hence,  $F = 0$

**Step 2** – The value of H is 5 because only by adding 5 to itself we get the units digit as 0 with 1 getting carry forwarded.

**Step 3** – When we add any six-digit number to a six-digit number and we get a seven digit number then that seventh digit will always be 1.

**Step 4** – The value of B would be 9 because only by adding 9 to 1 with 1 carry forward can make the sum as 11.

**Step 5** – The value of C would be 2 because adding 1 and 0 with carry forward 1 we get the sum as 2.

**Step 6** –  $G + K = 11$  and  $1 + J = G$ .

Since 9, 2 and 5 are already taken by B, C and H, the value of G, K would be either 3,8 or 4,7.

**Step 7** – Let's put the values and make the cases

$$9511\_0 + 15\_0\_0 = 110\_210$$

$951130 + 15\_080 = 1103210$  : Not possible as we cannot put the value of the remaining as 2 because we already have C as 2.

$$951180 + 157030 = 1108210$$
 : Possible

$$951140 + 153070 = 1104210$$
 : Possible

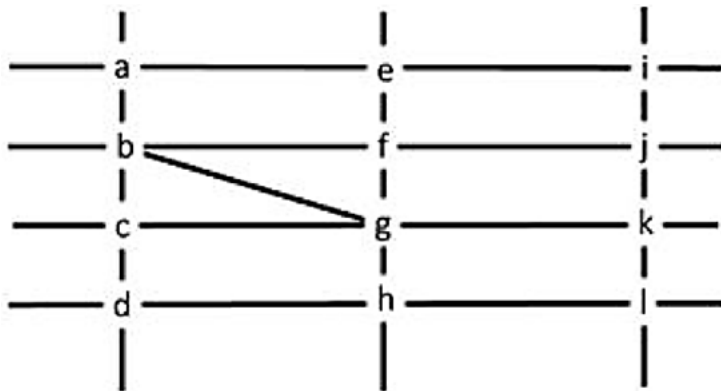
$$951170 + 156040 = 1107210$$
 : Possible

Letter	Digit
A	1
B	9
C	2
F	0
G	
H	5
J	
K	

17.

||Common||

**Direction:** The figure below shows the street map for a certain region with the street intersections marked from a through l. A person standing at an intersection can see along straight lines to other intersections that are in her line of sight and all other people standing at these intersections. For example, a person standing at intersection g can see all people standing at intersections b, c, e, f, h, and k. In particular, the person standing at intersection g can see the person standing at intersection e irrespective of whether there is a person standing at intersection f.



Six people U, V, W, X, Y, and Z, are standing at different intersections. No two people are standing at the same intersection.

The following additional facts are known.

- 1) X, U, and Z are standing at the three corners of a triangle formed by three street segments.
- 2) X can see only U and Z.
- 3) Y can see only U and W.
- 4) U sees V standing in the next intersection behind Z.
- 5) W cannot see V or Z.
- 6) No one among the six is standing at intersection d.

|||End|||

Who is standing at intersection a?

- A. Y
- B. V
- C. No one
- D. W

Answer ||| C

Solution |||

There is no one standing at intersection a.

**The correct option is C**

From given point 1, 2, and 4 there are two possibilities of X, U, Z, and V position:

- i) X, U, Z, and V are at b, g, f, and e respectively.
- ii) X, U, Z, and V are at g, b, f, and j respectively.

For satisfying statements 2, 3, 5, and 6 we can place W and Y in the above two cases as:

- i) Position of W and Y can be at l and k respectively.
- ii) Not possible

Hence, the positions of U, V, W, X, Y, and Z are g, e, l, b, k, and f respectively.

18. Who can V see?

- A. U only
- B. U, W, and Z only
- C. Z only
- D. U and Z only

Answer ||| D

Solution |||

V can see only U and Z.



**The correct option is D**

From given point 1, 2 and 4 there are two possibilities of X, U, Z and V position:

From given point 1, 2, and 4 there are two possibilities of X, U, Z, and V position:

i) X, U, Z, and V are at b, g, f, and e respectively.

ii) X, U, Z, and V are at g, b, f, and j respectively.

For satisfying statements 2, 3, 5, and 6 we can place W and Y in the above two cases as:

i) Position of W and Y can be at l and k respectively.

ii) Not possible

Hence, the positions of U, V, W, X, Y, and Z are g, e, l, b, k, and f respectively.

19. What is the minimum number of street segments that X must cross to reach Y?

- A. 2
- B. 4
- C. 3
- D. 1

Answer ||| A

Solution |||

The minimum number of streets that X must cross to reach Y is 2, i.e., from X to U then from U to Y.

**The correct option is A**

From given point 1, 2 and 4 there are two possibilities of X, U, Z and V position:

i) X, U, Z and V are at b, g, f, and e respectively.

ii) X, U, Z and V are at g, b, f, and j respectively

In the next step we will eliminate one of the above cases.

For satisfying statements 2, 3, 5, and 6 we can place W and Y in the above two cases as:

- i) Position of W and Y can be at l and k respectively.
- ii) Not possible

Hence, the positions of U, V, W, X, Y, and Z are g, e, l, b, k, f respectively.

20. Should a new person stand at intersection d, who among the six would she see?

- A. U and Z only
- B. U and W only
- C. V and X only
- D. W and X only

Answer ||| D

Solution |||

If a new person stands at intersection d then she would see only W and X.

**The correct option is D.**

From given point 1, 2 and 4 there are two possibilities of X, U, Z and V position:

- i) X, U, Z and V are at b, g, f and e respectively.
- ii) X, U, Z and V are at g, b, f and j respectively

In next step we will eliminate one of the above cases.

For satisfying statements 2, 3, 5 and 6 we can place W and Y in the above two cases as:

- i) Position of W and Y can be at l and k respectively.
- ii) Not possible

Hence, the positions of U, V, W, X, Y, and Z are g, e, l, b, k, f respectively.

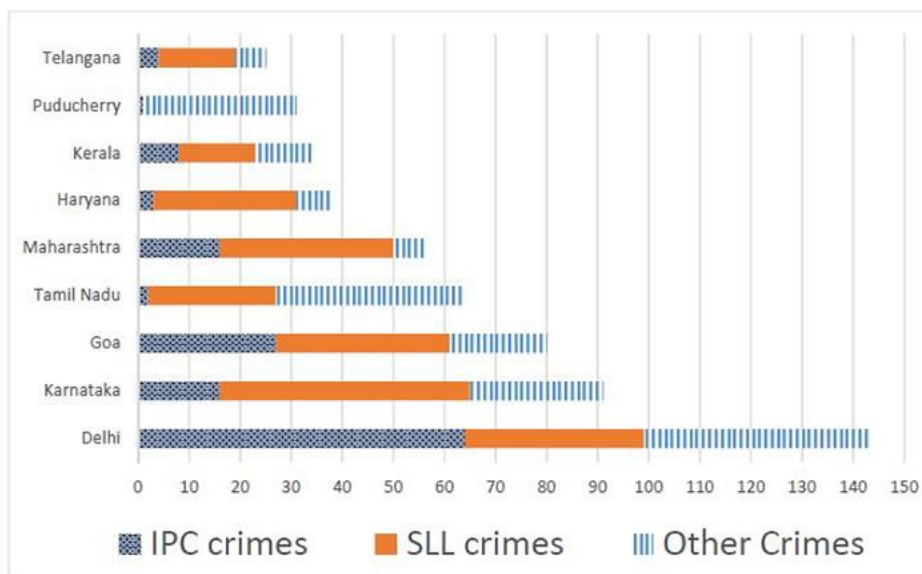
###TOPIC###Data Interpretation||Mixed Charts and Graphs||Mixed Charts and Graphs###

21.

|||Common|||

**Direction:** The Ministry of Home Affairs is analysing crimes committed by foreigners in different states and union territories (UT) of India. All cases refer to the ones registered against foreigners in 2016.

The number of cases – classified into three categories: IPC crimes, SLL crimes and other crimes – for nine states/UTs are shown in the figure below. These nine belong to the top ten states/UTs in terms of the total number of cases registered. The remaining state (among top ten) is West Bengal, where all the 520 cases registered were SLL crimes.



The table below shows the ranks of the ten states/UTs mentioned above among ALL states/UTs of India in terms of the number of cases registered in each of the three category of crimes. A state/UT is given rank  $r$  for a category of crimes if there are  $(r - 1)$  states/UTs having a larger number of cases registered in that category of crimes. For example, if two states have the same number of cases in a category, and exactly three other states/UTs have larger numbers of cases registered in the same category, then both the states are given rank 4 in that category. Missing ranks in the table are denoted by \*.

	IPC crimes	SLL crimes	Other Crimes
Delhi	*	*	*
Goa	*	4	*
Haryana	8	6	*
Karnataka	3	2	*
Kerala	*	9	*
Maharashtra	3	4	8
Puducherry	13	29	*
Tamil Nadu	11	7	*
Telangana	6	9	8
West Bengal	17	*	16

|||End|||

What is the rank of Kerala in the 'IPC crimes' category?

Answer ||| 5

Solution |||

The rank of Kerala in 'IPC crimes' category is 5.

**The correct answer is 5**

Let's make a table with approximate figures derived from the graph

State	IPC	SLL	Others	Total
Telangana	4	15	6	25
Puducherry	1	-	30	31
Kerala	8	15	12	35
Haryana	3	28	7	38
Maharashtra	16	35	6	57
Tamil Nadu	2	25	36	63
Goa	27	34	19	80
Karnataka	16	44	26	91
Delhi	63	34	45	142
West Bengal	-	520	-	520

22. In the two states where the highest total number of cases are registered, the ratio of the total number of cases in IPC crimes to the total number in SLL crimes is closest to

- A. 11:10
- B. 1:9
- C. 3:2
- D. 19:20

Answer ||| B

Solution |||

The two states where the highest total number of crimes are registered are West Bengal and Delhi. Total number of IPC crimes and SLL crimes in these states are 63 and 554 respectively. From the given options, these numbers are closest to the ratio 1:9.

**The correct option is B**

Let's make a table with approximate figures derived from the graph

State	IPC	SLL	Others	Total
Telangana	4	15	6	25
Puducherry	1	-	30	31
Kerala	8	15	12	35
Haryana	3	28	7	38
Maharashtra	16	35	6	57
Tamil Nadu	2	25	36	63
Goa	27	34	19	80
Karnataka	16	44	26	91
Delhi	63	34	45	142
West Bengal	-	520	-	520

23. Which of the following is DEFINITELY true about the ranks of states/UT in the 'other crimes' category?

i) Tamil Nadu: 2

ii) Puducherry: 3

- A. neither i) , nor ii)
- B. both i) and ii)
- C. only i)
- D. only ii)

Answer ||| B

Solution |||

The ranks of Tamil Nadu and Puducherry in the 'other crimes' category are 2 and 3 respectively. Hence, both i) and ii) are correct.

**The correct option is B**

Let's make a table with approximate figures derived from the graph

State	IPC	SLL	Others	Total
Telangana	4	15	6	25
Puducherry	1	-	30	31
Kerala	8	15	12	35
Haryana	3	28	7	38
Maharashtra	16	35	6	57
Tamil Nadu	2	25	36	63
Goa	27	34	19	80
Karnataka	16	44	26	91
Delhi	63	34	45	142
West Bengal	-	520	-	520

24. What is the sum of the ranks of Delhi in the three categories of crimes?

Answer ||| 5

Solution |||

Delhi has 1<sup>st</sup>, 3<sup>rd</sup>, and 1<sup>st</sup> ranks on IPC crime, SLL crime, and other crimes respectively. Hence, the sum of ranks of Delhi are  $1 + 3 + 1 = 5$

**The correct answer is 5**

State	IPC	SLL	Others	Total
Telangana	4	15	6	25
Puducherry	1	-	30	31
Kerala	8	15	12	35
Haryana	3	28	7	38
Maharashtra	16	35	6	57
Tamil Nadu	2	25	36	63
Goa	27	34	19	80
Karnataka	16	44	26	91
Delhi	63	34	45	142
West Bengal	-	520	-	520

###TOPIC###Data Interpretation||Mixed Charts and Graphs||Mixed Charts and Graphs###

25.

||Common|||

**Direction:** Princess, Queen, Rani and Samragini were the four finalists in a dance competition. Ashman, Badal, Gagan and Dyu were the four music composers who individually assigned items to the dancers. Each dancer had to individually perform in two dance items assigned by the different composers. The first items performed by the four dancers were all assigned by different music composers. No dancer performed her second item before the performance of the first item by any other

dancers. The dancers performed their second items in the same sequence of their performance of their first items.

The following additional facts are known.

- i) No composer who assigned item to Princess, assigned any item to Queen.
- ii) No composer who assigned item to Rani, assigned any item to Samragini.
- iii) The first performance was by Princess; this item was assigned by Badal.
- iv) The last performance was by Rani; this item was assigned by Gagan.
- v) The items assigned by Ashman were performed consecutively. The number of performances between items assigned by each of the remaining composers was the same.

|||End|||

Which of the following is true?

- A. The third performance was composed by Dyu.
- B. The second performance was composed by Dyu.
- C. The second performance was composed by Gagan.
- D. The third performance was composed by Ashman.

Answer ||| B

Solution |||

The second performance was composed by Dyu.

**The correct option is B**

From point (iii) and (iv), the first and last performances were by Princess and Rani respectively and their composers were Badal and Gagan respectively. The sequence of performance is the same in the second round. Hence, the fourth and fifth performances were by Rani and Princess.

From point (v), Ashman was the composer in fourth and fifth performance as all dancers performed with different composers for the first time.

Performance number	Dancer	Composer
1	Princess	Badal
2		
3		
4	Rani	Ashman
5	Princess	Ashman
6		
7		
8	Rani	Gagan

The number of performances between items assigned by each of the remaining composers apart from Ashman was the same.

The sixth performance was assigned by Badal and third performance was assigned by Gagan. Hence, the second and seventh performances were assigned by Dyu. The difference between all the performances assigned by a single composer was 4. From point (i) Badal and Ashman cannot assign items to Queen and in the second round even Gagan has already assigned to Rani. Hence, Queen was assigned to Dyu and her performance was number seven.

The remaining dancer in the second round is Samragini. Her performance number is sixth.

Since the order of performance is same in both the rounds, therefore, we get the whole following table:

Performance number	Dancer	Composer
1	Princess	Badal
2	Samragini	Dyu
3	Queen	Gagan
4	Rani	Ashman
5	Princess	Ashman
6	Samragini	Badal
7	Queen	Dyu
8	Rani	Gagan

26. Which of the following is FALSE?

- A. Queen did not perform in any item composed by Gagan.
- B. Rani did not perform in any item composed by Badal.
- C. Samragini did not perform in any item composed by Ashman.
- D. Princess did not perform in any item composed by Dyu.

Answer ||| A

Solution |||



All the statements are correct except the first one which states that Queen did not perform in any item composed by Gagan.

**The correct option is A**

From point (iii) and (iv), the first and last performances were by Princess and Rani respectively and their composers were Badal and Gagan respectively. The sequence of performance is the same in the second round. Hence, the fourth and fifth performances were by Rani and Princess.

From point (v), Ashman was the composer in fourth and fifth performance as all dancers performed with different composers for the first time.

Performance number	Dancer	Composer
1	Princess	Badal
2		
3		
4	Rani	Ashman
5	Princess	Ashman
6		
7		
8	Rani	Gagan

The number of performances between items assigned by each of the remaining composers apart from Ashman was the same. The sixth performance was assigned by Badal and third performance was assigned by Gagan. Hence, the second and seventh performances were assigned by Dyu. The difference between all the performances assigned by a single composer was 4. From point (i) Badal and Ashman cannot assign items to Queen and in the second round even Gagan has already assigned to Rani. Hence, Queen was assigned to Dyu and her performance was number seven.

The remaining dancer in the second round is Samragini. Her performance number is sixth.

Since the order of performance is same in both the rounds, therefore, we get the whole following table:

Performance number	Dancer	Composer
1	Princess	Badal
2	Samragini	Dyu
3	Queen	Gagan
4	Rani	Ashman
5	Princess	Ashman
6	Samragini	Badal
7	Queen	Dyu
8	Rani	Gagan

27. The sixth performance was composed by:

- A. Gagan
- B. Ashman
- C. Badal
- D. Dyu

Answer ||| C

Solution |||

The sixth performance was composed by Badal.

**The correct option is C.**

From point (iii) and (iv), the first and last performances were by Princess and Rani respectively and their composers were Badal and Gagan respectively. The sequence of performance is the same in the second round. Hence, the fourth and fifth performances were by Rani and Princess.

From point (v), Ashman was the composer in fourth and fifth performance as all dancers performed with different composers for the first time.

Performance number	Dancer	Composer
1	Princess	Badal
2		
3		
4	Rani	Ashman
5	Princess	Ashman
6		
7		
8	Rani	Gagan

The number of performances between items assigned by each of the remaining composers apart from Ashman was the same. The sixth performance was assigned by Badal and third performance was assigned by Gagan. Hence, the second and seventh performances were assigned by Dyu. The difference between all the performances assigned by a single composer was 4. From point (i) Badal and Ashman cannot assign items to Queen and in the second round even Gagan has already assigned to Rani. Hence, Queen was assigned to Dyu and her performance was number seven.

The remaining dancer in the second round is Samragini. Her performance number is sixth.

Since the order of performance is same in both the rounds, therefore, we get the whole following table:

Performance number	Dancer	Composer
1	Princess	Badal
2	Samragini	Dyu
3	Queen	Gagan
4	Rani	Ashman
5	Princess	Ashman
6	Samragini	Badal
7	Queen	Dyu
8	Rani	Gagan

28. Which pair of performances were composed by the same composer?

- A. The first and the seventh
- B. The third and the seventh
- C. The first and the sixth
- D. The second and the sixth

Answer ||| C

Solution |||

From the given options, first and sixth performances were composed by the same composer, Badal.

**The correct option is C.**

From point (iii) and (iv), the first and last performances were by Princess and Rani respectively and their composers were Badal and Gagan respectively.

The sequence of performance is the same in the second round. Hence, the fourth and fifth performances were by Rani and Princess.

From point (v), Ashman was the composer in fourth and fifth performance as all dancers performed with different composers for the first time.

Performance number	Dancer	Composer
1	Princess	Badal
2		
3		
4	Rani	Ashman
5	Princess	Ashman
6		
7		
8	Rani	Gagan

The number of performances between items assigned by each of the remaining composers apart from Ashman was the same. The sixth performance was assigned by Badal and third performance was assigned by Gagan. Hence, the second and seventh performances were assigned by Dyu. The difference between all the performances assigned by a single composer was 4. From point (i) Badal and Ashman cannot assign items to Queen and in the second round even Gagan has already assigned to Rani. Hence, Queen was assigned to Dyu and her performance was number seven.

The remaining dancer in the second round is Samragini. Her performance number is sixth.

Since the order of performance is same in both the rounds, therefore, we get the whole following table:

Performance number	Dancer	Composer
1	Princess	Badal
2	Samragini	Dyu
3	Queen	Gagan
4	Rani	Ashman
5	Princess	Ashman
6	Samragini	Badal
7	Queen	Dyu
8	Rani	Gagan

###TOPIC###Logical Reasoning||Logical Matching||Logical Matching###

29.

||Common||

**Direction:** A new game show on TV has 100 boxes numbered 1, 2, . . . , 100 in a row, each containing a mystery prize. The prizes are items of different types, a, b, c, . . . , in decreasing order of value. The most expensive item is of type a, a diamond ring, and there is exactly one of these. You are told that the number of items at least doubles as you move to the next type. For example, there would be at least twice as many items of type b as of type a, at least twice as many items of

type c as of type b and so on. There is no particular order in which the prizes are placed in the boxes.

|||End|||

What is the minimum possible number of different types of prizes?

Answer ||| 2

Solution |||

We are given that there is only one prize of type a, hence, to make the number of types the least, the second box can have a maximum number of prizes, i.e., it can be 99. Therefore, the minimum possible number of different types of prizes is 2.

**The correct answer is 2.**

30. What is the maximum possible number of different types of prizes?

Answer ||| 6

Solution |||

To make the number of different types of prizes maximum we will take the condition that the next item after 1 should be the least after it is doubled. The order could be 1, 2, 4, 8, 16, 32 containing six types. Sum of these numbers is 63, therefore, we cannot double the number 32 as it would give us 64 and the total sum would exceed 100. Hence, the maximum possible number of different types of prizes is 6.

The correct answer is 6

31. Which of the following is not possible?

- A. There are exactly 30 items of type b
- B. There are exactly 45 items of type c
- C. There are exactly 75 items of type e
- D. There are exactly 60 items of type d

Answer ||| B

Solution |||

Let's solve this by checking every option.

In option A, there are exactly 30 items of type b. According to the given condition that the number of items at least double as you move to the next type, this option is possible. We know that the first type contains 1 item and according to this question the second type contains 30 items. Therefore, the third item after fulfilling the doubling condition can contain  $100 - 31$ , i.e., 69 items.

In option B, there are exactly 45 items of type c. According to the given condition that the number of items at least doubles as you move to the next type, this option is not possible.

To satisfy the conditions of the question, either the second number should be 54 (as total is 100) or the fourth number should be at least 90 (double of 45). The second number cannot be 54 as the second number cannot be greater than the third number and the fourth number cannot be 90 as in that case the total number of gifts becomes greater than 100. Hence, there cannot be 45 items of type C.

**The correct option is B.**

32. You ask for the type of item in box 45. Instead of being given a direct answer, you are told that there are 31 items of the same type as box 45 in boxes 1 to 44 and 43 items of the same type as box 45 in boxes 46 to 100. What is the maximum possible number of different types of items?

- A. 5
- B. 4
- C. 6
- D. 3

Answer ||| A

Solution |||

We know that there is no order in which the prizes are placed in the boxes. We can say that the total prizes of the same type which were kept in box 45 were  $1 + 31 + 43 = 75$ . To make the number of different types of prizes maximum we will take the condition that the next item after 1 should be the least after it gets doubled, therefore the items can be in order 1, 2, 4, 8, 75. The sum of these = 90.

Since the total is 100 we cannot double 8 as it would lead to 16 which will exceed the total by 6. Hence, the maximum possible number of different types of items are 5.

**The correct option is A.**

###TOPIC###Data Interpretation||Caselets||Caselets###

