



Date : 28th Dec 2023

Logical Reasoning – Data Sufficiency

English

Q:1 Directions: Read the given information carefully and decide which among the following statements is/are necessary to answer the question given below.

10 people are sitting in two parallel rows, facing each other. A, B, C, D, E sit in row 2 facing South, not necessarily in the same order. P, Q, R, S, T sit in row 1 facing north, not necessarily in the same order.

Who sits opposite to C?

Statements:

I: C sits in the middle of row 2 and Q sits in the middle of row 1.

II: C sits third from the right end and Q sits third from the left end of their respective rows.

1. The data in statement I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.
2. The data in statement II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.
3. The data either in statement I alone or in statement II alone is sufficient to answer the question.
4. The data in both statements I and II together is not sufficient to answer the question.
5. The data in both statements I and II together is necessary to answer the question.

Q:2 Directions: A question given below is followed by two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question or not. Read both the statements and choose the appropriate option.

Who is the tallest among B, F, C, and M?

I. M is shorter than only two persons.

II. F is taller than M but shorter than B. C is shorter than B only.

1. Only statement I is sufficient
2. Only statement II is sufficient
3. Either statement I or II is sufficient
4. Neither statement I nor II is sufficient
5. Both statement I and II are required

Q:3 Directions: A question given below is followed by two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question or not. Read both the statements and choose the appropriate option.

The given question is followed by information in two statements. You have to find out which statement follows the information and mark your answer accordingly.

How is Amarlata related to Hemant?

Statements:

I. Amarlata is the mother-in-law of Ritesh who is the father of Hemant.

II. Hemant is the paternal grandson of Kamal, who is the husband of Amarlata.

1. The data in statement I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.
2. The data in statement II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.
3. The data either in statement I alone or in statement II alone is sufficient to answer the question.
4. The data in both statements I and II together is not sufficient to answer the question.
5. The data in both statements I and II together is necessary to answer the question.

Q:4 Directions: A question given below is followed by two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question or not. Read both the statements and choose the appropriate option.

- A) If the data in Statement I alone is sufficient to answer the question.
- B) If the data in Statement II alone is sufficient to answer the question.
- C) If the data either in Statement I alone or in Statement II alone is sufficient to answer the question.
- D) If the data in both Statements I and II together are not sufficient to answer the question.
- E) If the data in both Statements I and II together are necessary to answer the question.

Eight members P, Q, R, S, T, U, V, and W are standing in a straight line facing north but not necessarily in the same order. Q is standing second to the right of U. U is standing at one of the extreme ends of the line, then what is the standing position of S?

I. V is not the immediate neighbor of T and R is standing third to the left of S.



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English

II. Only two persons are standing between S and P.

1. A
2. B
3. C
4. D
5. E

Q:5 Directions: A question given below is followed by two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question or not. Read both statements and choose the appropriate option.

- A) If the data in Statement I alone is sufficient to answer the question.
- B) If the data in Statement II alone is sufficient to answer the question.
- C) If the data either in Statement I alone or in Statement II alone is sufficient to answer the question.
- D) If the data in both Statements I and II together are not sufficient to answer the question.
- E) If the data in both Statements I and II together are necessary to answer the question.

How is D related to E?

I. G has only two kids, D and E. F is the sister-in-law of E.

II. H, the sister-in-law of D, is the daughter-in-law of I, who has only two kids, D and E.

1. A
2. B
3. C
4. D
5. E

Q:6 Directions: A question given below is followed by two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question or not. Read both the statements and choose the appropriate option.

What is the code of 'Happy'?

Statement I: 'winners are happy' is written as 'hp bp np'

Statement II: 'Loser are sad' is written as 'op qp sp'

1. If only statement I is sufficient to answer this question
2. If only statement II is sufficient to answer this question

3. If either statement I or II is sufficient to answer this question

4. If neither statement I nor II is sufficient to answer this question

5. If both statement I and II are sufficient to answer this question

Q:7 Directions: Each of the questions given below, consist of three statements numbered I, II and III. You have to decide whether the data provided in the statements are sufficient to answer the question. Read the three statements and Give answer

A. If the data in statement I and II together are sufficient to answer the question, while the data in statement III are not required to answer the question.

B. If the data in statement I and III together are sufficient to answer the question, while the data in statement II are not required to answer the question.

C. If the data in statement II and III are sufficient to answer the question, while the data in statement I are not required to answer the question.

D. If the data in all three statements I, II and III together are necessary to answer the question.

E. If the data in all the statements, I, II and III even together are not sufficient to answer the question.

Eight persons live on eight different floors of the building. The ground floor is numbered as 1 and the top floor is numbered 8. How many persons live between F and D?

I. A lives on an odd number floor below floor number 7. Two persons live between G and F.

II. A does not live on the ground floor. Three persons live between A and D. E lives just above A.

III. F lives just below B and just above G. B lives on an odd number floor. G does not live on the ground floor.

1. A
2. B
3. C
4. D
5. E

Q:8 Directions: Read the given information carefully and answer the question.



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Logical Reasoning – Data Sufficiency

English

Anjali, Babita, Pooja, Priya, Aarti, and Shruti are Six students in a class. All of them are of different ages. The difference between the ages of any two-person is not more than one year. They play three different games. Two of them play chess, two play ludo and two of them play carrom.

Which game does the eldest student play?

Statement I – Anjali and Babita are elder than Aarti, Priya, and Shruti. Aarti and Priya play chess.

Statement II – Shruti is younger than Priya. Anjali and Shruti play Carrom.

Statement III – Pooja is elder than Babita and Anjali.

1. Statement I alone is sufficient
2. Statement I and II are together sufficient
3. Statement I and III together are sufficient
4. Statement II and III together are sufficient
5. Statement I, II, and III together are sufficient.

Q:9 Directions: A question given below is followed by 3 statements numbered 1, 2, and 3. Based on the given information, you have to decide which of the following statements can be used to answer the question. Choose the correct option from the given alternatives.

A to F are six friends and their ages are in an arithmetic progression with a common difference of 2 months, though not necessarily in the same order. Each person plays exactly one game from among chess, carrom & tennis. No game is played by more than 2 persons. The difference in the ages of A & E, as well as that of B & F, is four months. Chess is played by either A or B but not both. What is the game played by the eldest person?

1. F did not play tennis and is younger than B, but not the youngest.
 2. The youngest person plays carrom and he is not C. Also, D does not play carrom.
 3. Neither A nor B is the youngest/eldest among the six nor do they play tennis.
1. If statement 1 alone or 2 alone but not 3 alone answers the question definitely
 2. If statements 2 alone or 3 alone but not 1 alone answers the question definitely
 3. If all 3 statements together are required to answer the question definitely
 4. Both statements 2 and 3, but not statement 1, are required to answer the question
 5. Cannot answer even after using all the 3 statements together

Q:10 Direction: Read the following statements carefully and then decide which among the following statements is/are sufficient to answer the given question.

Point P is in which direction with respect to point Z?

I. Point D is 8m to the east of point Z. Point M is 5m to the south of Point D.

II. Point L is 15m to the south of Point M. Point L is 6m to the west of Point Z.

III. Point P is 8m to the west of Point M. Point Z is 7m to the south of Point R.

1. Only I and II are sufficient
2. Only I and III are sufficient
3. Only II and III are sufficient
4. Only II and either I or III
5. All I, II and III are sufficient

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Logical Reasoning – Data Sufficiency

English

Answer Key

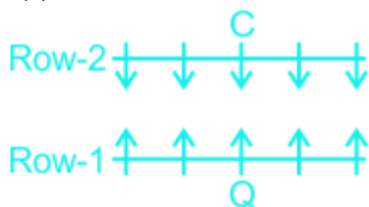
1. (3)	2. (2)	3. (3)	4. (5)	5. (1)
6. (4)	7. (3)	8. (5)	9. (3)	10. (4)

Answers and Solutions

Q:1 The correct answer is **Option 3** i.e. **The data either in statement I alone or in statement II alone is sufficient to answer the question**

Statements:

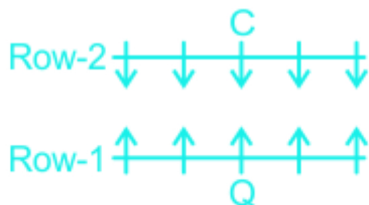
I: C sits in the middle of row 2 and Q sits in the middle of row 1: We can easily infer that Q sits opposite to C.



It is clear from the diagram that Q sits opposite to C.

Statement I alone is sufficient to answer the question.

II: C sits third from the right end and Q sits third from the left end of their respective rows: We can easily identify that Q sits opposite to C.



It is clear from the diagram that Q sits opposite to C.

Statement II alone is sufficient to answer the question.

Hence, the correct answer is **The data either in statement I alone or in statement II alone is sufficient to answer the question.**

Q:2 The correct answer is **Option 2** i.e. **Only statement II is sufficient**

Statement I. M is shorter than only two persons.

$_ > _ > M > _$

From this, we can not find the tallest person.

Statement II. F is taller than M but shorter than B. C is shorter than B only.

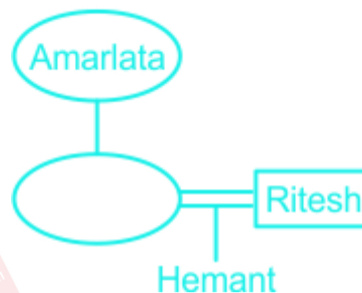
$B > C > F > M$

From this, it is clear that B is the tallest among all. we can find the answer from statement II alone.

Hence, the correct answer is **Only statement II is sufficient.**

Q:3 The correct answer is **Option 3** i.e. **The data either in statement I alone or in statement II alone is sufficient to answer the question**

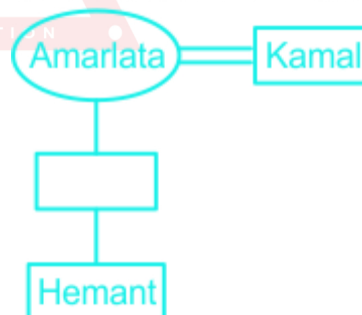
I. Amarlata is the mother-in-law of Ritesh who is the father of Hemant.



From the diagram, we can conclude that Amarlata is the grandmother of Hemant.

Statement I alone is sufficient to answer the question

II. Hemant is the paternal grandson of Kamal, who is the husband of Amarlata.



From the diagram, we can conclude that Amarlata is the grandmother of Hemant.

Statement II alone is sufficient to answer the question

Hence, the correct answer is **The data either in statement I alone or in statement II alone is sufficient to answer the question.**

Q:4 The correct answer is **Option 5** i.e. **E**

Q is standing second to the right of U. U is standing at one of the extreme ends of the line.

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English



I. V is not the immediate neighbor of T and R is standing third to the left of S.



Case 1



Case 2



Case 3

II. Only two persons are standing between S and P.



Case 1



Case 2



Case 3

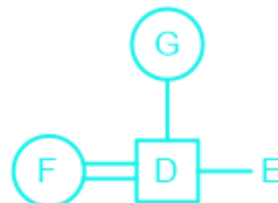
From both statements, the possible diagram is,



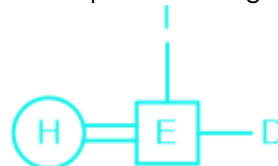
Clearly, S sits fifth from the left end.
Hence, the correct answer is 'E'.

Q:5 The correct answer is **Option 1** i.e. A

I. The possible diagram is,



II. The possible diagram is,



Clearly, the relation of D with respect to E is clear in Only statement I alone.

Hence, the correct answer is '**Only Statement I is sufficient**'.

Q:6 The correct answer is **Option 4** i.e. If neither statement I nor II is sufficient to answer this question

Statement I: 'winners are happy' is written as 'hp bp np'

Statement II: 'Loser are sad' is written as 'op qp sp'

From statement I: we cannot find the definite code of happy.

From statement II: Word 'happy' is not there to deduce the possible coding.

Therefore, the correct answer is **neither statement I nor II is sufficient to answer this question**.

Q:7 The correct answer is **Option 3** i.e. C

From statements I and II:

I. A lives on an odd number floor below floor number 7. Two persons live between G and F.

II. A does not live on the ground floor. Three persons live between A and D. E lives just above A.

	Case 1	Case 2	Case 3
Floors	Persons	Persons	Persons
8		G/F	
7	G/F	D	D
6	E		
5	A	F/G	G/F

4	F/G	E	E
3		A	A
2			F/G
1	D		

From statements II and III:

II. A does not live on the ground floor. Three persons live between A and D. E lives just above A.
 III. F lives just below B and just above G. B lives on an odd number floor. G does not live on the ground floor.

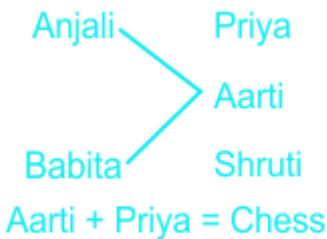
Floors	Persons
8	
7	E
6	A
5	B
4	F
3	G
2	D
1	

No arrangement can be formed from statements I and II because the conditions given in the statements contradict each other.

So, From the above arrangements, we can see that, we can find the number of persons living between F and D from statements II and III.

Hence, the correct answer is **C**.

Q:8 The correct answer is **option 5** i.e. **Statement I, II, and III together are sufficient**

Understanding	Application
I. Anjali and Babita are elder than Aarti, Priya, and Shruti. Aarti and Priya play chess.	 <p>Anjali > Aarti > Priya Babita > Aarti > Shruti Aarti + Priya = Chess</p>

II. Shruti is younger than Priya. Anjali and Shruti play Carrom.	<p>Priya > Shruti Anjali + Shruti = Carrom</p>
III. Pooja is elder than Babita and Anjali.	<p>Pooja > Babita Pooja > Anjali</p>
<p>By combining all three statements together we get, Pooja > Babita/Anjali > Priya > Aarti/Shruti Aarti + Priya = Chess Anjali + Shruti = Carrom Pooja + Babita = Ludo Hence, the statement I, II, and III together are correct.</p>	

Q:9 The correct answer is **Option 3** i.e. **If all 3 statements together are required to answer the question definitely**

Using data in all 3 statements together we can see two broad scenarios:

1. A plays chess and B plays carrom. As F does not play tennis, 2 among C, D & E have to play tennis and F plays chess (as F is not the youngest and B is also not the youngest). Now as it is given that C is not the youngest and D cannot play carrom, it leaves E to play carrom and E has to be the youngest. Both C & D have to play tennis. Since E is the youngest implies A is third from bottom when they are arranged in ascending order of ages. F is second and B goes at fourth in that list leaving C & D to occupy the fifth and sixth places. Please note that the ages are in arithmetic progression.

2. B play chess and A play carrom. The remaining people play according to the same explanation as seen in the above scenario.

Chess - A & F

Carrom - B & E

Tennis - C & D

Age list: (in ascending order)

1 - E

2 - F

3 - A

4 - B

5 - C or D

6 - C or D

or

Chess - B & F

Carrom - A & E

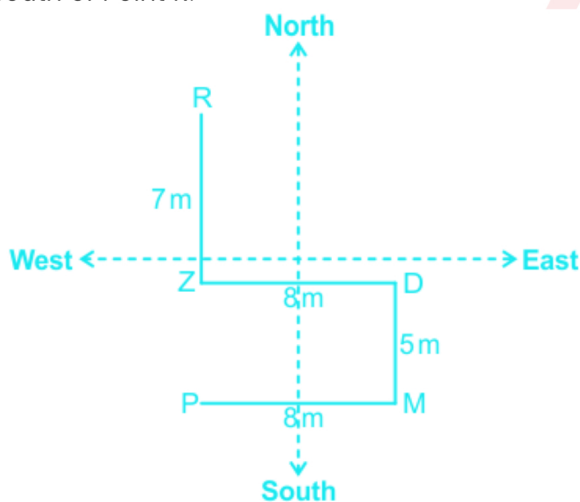
Tennis - C & D

As both C & D play tennis.

Hence, the correct answer is **If all 3 statements together are required to answer the question definitely.**

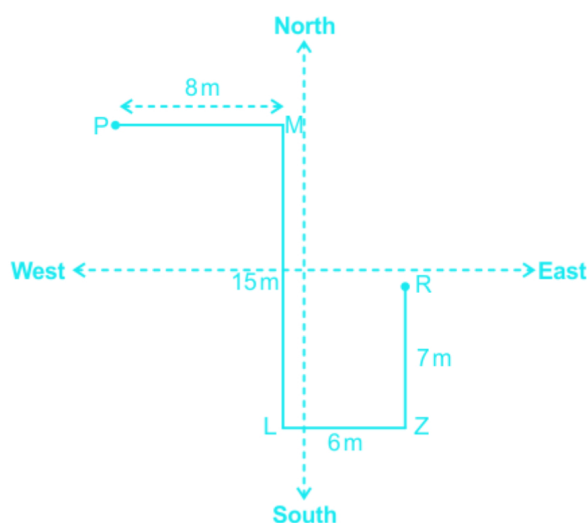
Q:10 The correct answer is **Option D** i.e. **Only II and either I or III**

Statements I and III: Point D is 8m to the east of point Z. Point M is 5m to the south of Point D. Point P is 8m to the west of Point M. point Z is 7m to the south of Point R.



Thus, Point P is to the west of point Z. So, statements I and III are sufficient to answer the question.

Statements II and III: Point L is 15m to the south of Point M. Point L is 6m to the west of Point Z. Point P is 8m to the west of Point M. Point Z is 7m to the south of Point R.



Thus, point P is to the north-west of point Z. So, statements II and III are sufficient to answer the question.

Thus, we can say that Only statement II and either I or III are sufficient to answer the question.

Hence, the correct answer is **Only II and either I or III.**