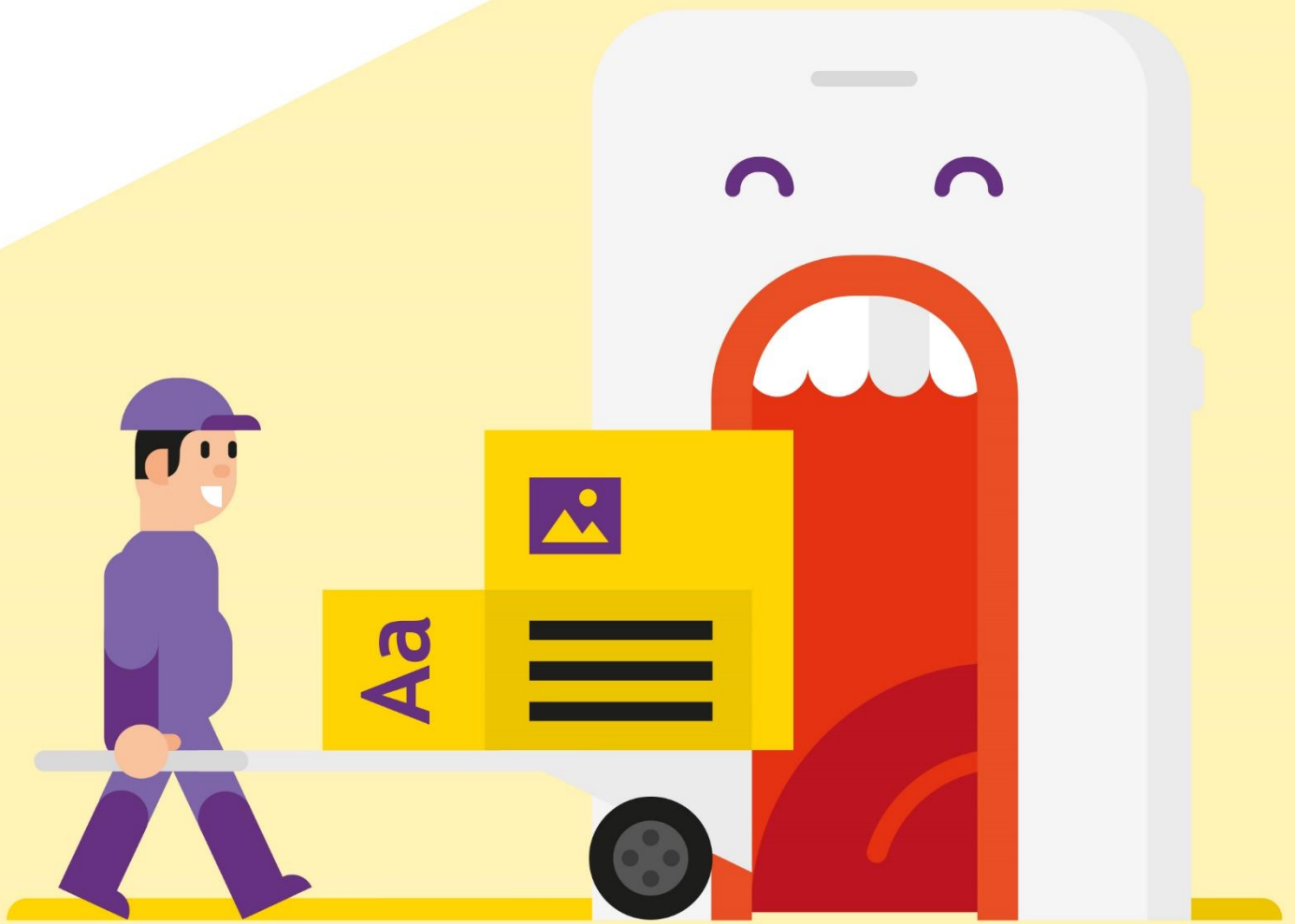




REASONING DATA SUFFICIENCY



Data Sufficiency

Example-1:

Each of the questions below consists of questions and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and find;

(a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

(b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

(c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.

(d) If the data even 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.

1. Five friends Q, R, S, T, V are married on different dates 12, 19, 21, 28, 31 but not necessarily in the same order in the month of either January or September. T is married on which of the following date?

(I) Both T and Q are not married on even date of the month. T is married before Q. Two persons are married in between T and V.

(II) No body is married after R. S is married on a date in between T and Q. S is married on an even date. More than three persons are married in the same month.

2. Six boxes A, B, C, D, E, and F of different colours are placed one above another. Also each box have different number of toffees. Only two boxes are placed in between B and Green box. No box is placed above B. Box D is placed immediately above Blue box. Only Red box is placed in between Green box and A. Only one box is placed between Red and Blue box. Only one box is placed in between D and E. Only one box is placed between Orange box and C. How many numbers of toffees does Blue box have?

(I) Box E has more number of toffees than 8 while box C has more number of toffees than 20. Box D has 21 toffees. The box which has lowest and 2nd lowest number of toffees has 10 and 12 toffees respectively. Box A, C, D and F has odd number of toffees.

(II) A has more number of toffees than B but not more than D. The difference in the number of toffees in box F and E is 7. The box which has highest number of toffees has 8 more toffees than box F. Total number of toffees in box B and A is 31.

Explanation (The Approach)

1. (e); From statement II- S can be married on either 28 January or 12 September. From statement I and II- When S is married on 28 January



So, Box C of Blue color contains 25 toffees.

Example-2:

Study the following information and answer the questions given below:

1. Four friends are sitting around a circular table named M, N, O and P. Are they facing to the center of table?
If-

I. N is sitting second to the right of P. P is facing center. O is sitting immediate right of N and P.

II. M is sitting immediate left of N. O is not sitting immediate left of M. O is sitting immediate right of P.

III. P is sitting immediate of M and O. N is sitting immediate left of M. O is sitting immediate left of P.

(a) If the data in statement I and II are sufficient to answer the question, while the data in statement III are not sufficient to answer the question.

(b) If the data in statement II and III are sufficient to answer the question, while the data in statement I is not sufficient to answer the question.

(c) If the data in statement I alone or in the statement II alone or in the statement III alone is sufficient to answer the question.

(d) If the data in all the statement I, II and III are necessary to answer the question.

(e) If the data in statement I and III are sufficient to answer the question, while the data in statement II is not sufficient to answer the question.

2. Six people A, B, C, D, E and F are living in six floor building each live in one of apartment of building. In building there are from I to VI floor. Ground floor is given number I, then II and so on. Who is living on Ground floor?

I. In which floor C and B are living there is only one floor between them. A is living in even number floor.

II. E is not living in even number floor. B is living in even number floor. B is not living in top floor.

III. D is living in odd number floor. In which floor D and A are living, there are two between them. E is living immediate next to C from down.

(a) If the data in statement I and II are sufficient to answer the question, while the data in statement III are not sufficient to answer the question.

(b) If the data in statement I and III are sufficient to answer the question, while the data in statement II is not sufficient 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 is not sufficient to answer the question.



(d) If the data in all the statement I, II and III are necessary to answer the question

(e) If the data in statement I alone or in the statement II alone or in the statement III alone is sufficient to answer the question.

3. Who is youngest among six family members G, H, I, J, K and L? (Each member is of different ages.)

I. G is the daughter-in-law of J; K is grandson of L, who is the father of H.

II. G is not youngest while L is the eldest.

III. H is the father of I, who is grandson of L. J is the wife of K's son and I's father

(a) If the data in statement I and II are sufficient to answer the question, while the data in statement III are not sufficient to answer the question.

(b) If the data in statement I alone or in the statement II alone or in the statement III alone is sufficient to answer the question.

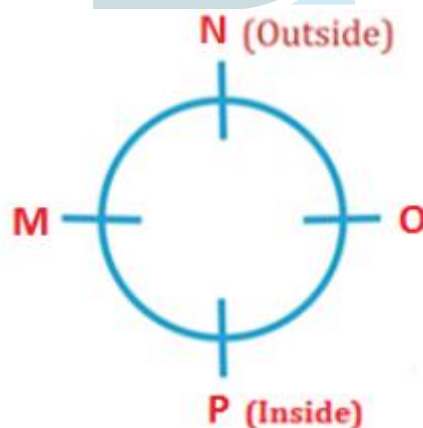
(c) If the data in statement I and III are sufficient to answer the question, while the data in statement II is not sufficient to answer the question.

(d) If the data in statement II and III are sufficient to answer the question, while the data in statement I is not sufficient to answer the question.

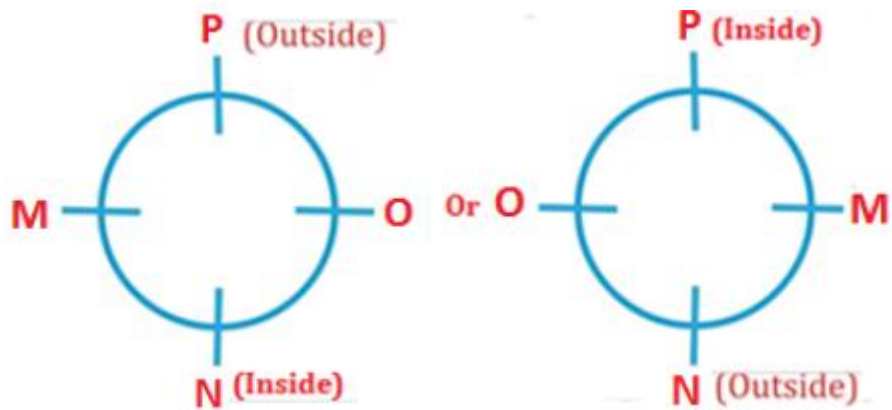
(e) If the data in all the statement I, II and III are necessary to answer the question.

Explanation (The Approach):

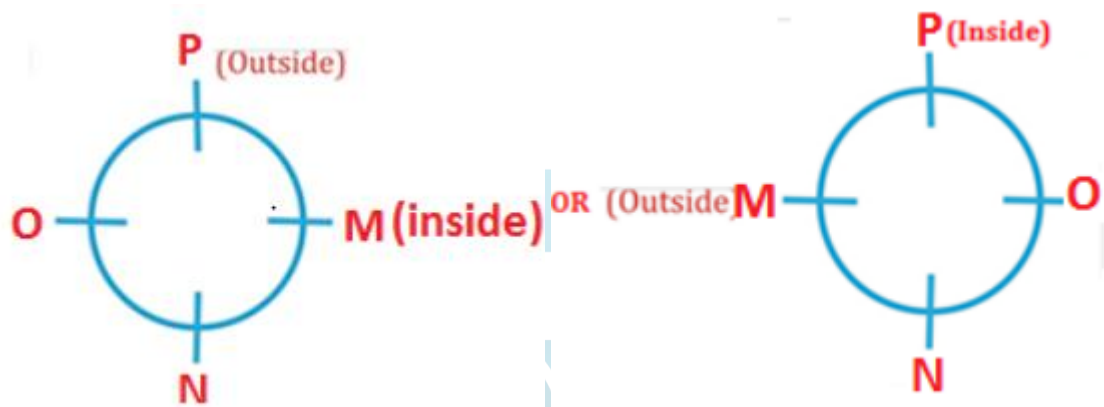
1. (c); I.



II.



III.



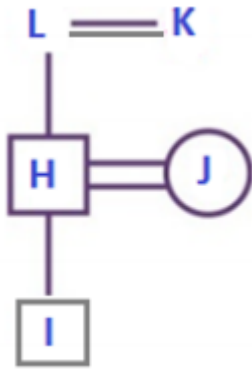
I, II or III statement alone are sufficient to conclude that M, N, O and P are all not facing to centre of table.

2. (c); From II and III-

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

It is clear that F is living on the Ground floor

3. (d);



From statements II and III, I is the youngest because G is not youngest.

Example-3:

In each of the following questions, a question is followed by three statements numbered I, II and III. Read all the statements to find the answer to given question and then answer accordingly that which statement/s can give the answer alone/together.

1. What is the direction of point U with respect to point X?

Statement I: Point R is 7 m to the North of point Q. Point P is 8 m to the West of point Q. Point R is 6 m to the West of point U.

Statement II: Point B is 9 m to the North of point A. Point P is 5 m to the North of point Z. Point Z is 4 m to the West of point A.

Statement III: Point C is 7 m to the East of point A. Point X is 2 m to the East of point F. Point F is 3 m to the North of point C.

- (a) Both I and III
- (b) Both II and III
- (c) All I, II and III
- (d) II and either I or III
- (e) Even I, II and III together are also not sufficient

2. What does the code 'bp' stand for in the given code language?

Statement I: In the language, 'black white red' is coded as 'DF dc or' and 'green blue grey' is coded as 'st hn wo'

Statement II: In the language, 'blue pink brown' is coded as 'er bp hn' and 'pink blue white' is coded as 'hn or bp'

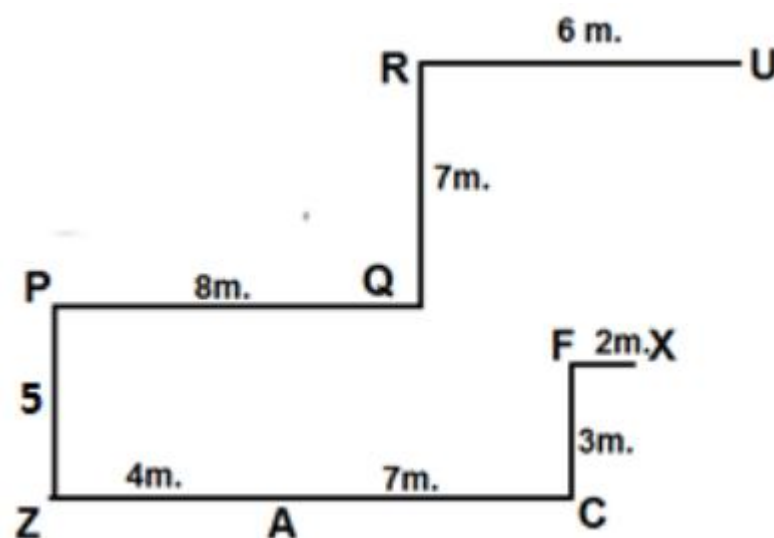
Statement III: In the language, 'green violet orange' is coded as 'pa wokl' and 'yellow pink brown' is coded as 'bp bi er'



- (a) Both II and III
- (b) I and either II or III
- (c) II and either I or III
- (d) Both I and III
- (e) All I, II and III

Explanation (The Approach):

1. (c); from all the statements



2. (c); From I and II, we get- 'hn' stands for 'Blue' So,

The code 'bp' stands for—Pink

From II and III, we get—

The code 'bp' stands for—Pink

Practice Exercise Based on new

Directions (1): Each of the questions below, consist of a question and 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.

1. Six employees P, Q, R, S, T, U attend office on six different days starting from Monday to Saturday and each of them have their office on different floors viz. 1st, 4th, 5th, 6th, 8th, 9th. The one who has office on 1st floor attend office on which of the following day?

(I) Only two persons attend office in between R and S. The one who attend office on Wednesday has office on 8th floor. Q has office on an even numbered floor. P attends office immediately before T. R attend office before S and has office on an odd numbered floor.

(II) No one attend office after U. Only three persons attend office in between the one who has office on 1st floor and the one who has office on 5th floor. The one who attend office immediately before T has office 1st floor.

(III) R has office neither on 1st nor on 5th floor. Q attends office immediately after S. The one who attend office on Thursday does not has office on 4th floor.

DID YOU KNOW?

Today's era is a race in which everybody wants to put minimum efforts to get maximum output, Data sufficiency is similar concept in which you have to find the minimum information which is required to get the answer of your question

Directions (2-3): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement are sufficient to answer the question. Read both the statements and Give answer:

(a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

(b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

(c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.

(d) If the data even 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.

2. If given Output: bold 71 keen 212 tough 353 units 634 then which of the following will the input?



I. If step II of the given input is---

Step II: bold 71 keen 212 tough 63 35 unit

II. If Step III of the given input is---

Step III: bold 71 keen 212 tough 353 63 unit

3. Six persons A, B, C, D, E, F born in six different months of same year. only one person was born in one month. C was born in which of the following month?

I. E was born in a month having least number of days. A was born in a month having 30 days. A was not born in April, June and November. C was born in on one of the month between D and A.

II. No person was born after B. C was born in a month having 31 days. F was born in a month immediately after A. There is gap of 4 months in between the months in which F and D were born.

DID YOU KNOW?

The topic of data sufficiency is bit molded as seen in the recent exams as most of its part is either in the form of a puzzle or seating arrangement.

Directions (4-5): Each of the questions below, consist of a question and 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.

4. Six persons A, B, C, D, E, F are sitting around a circular table facing towards the center. Each of them like different color Blue, White, Pink, Purple, Black, Red. The one who is sitting second to the left of C like which of the following color?

I. F sits opposite to E. The one who likes Blue color sits second to the right of E. The one who likes Purple is an immediate neighbour of the one who likes Blue color. B does not like Purple color. C is an immediate neighbour of A.

II. C sits second to the left of E and likes Black color. The one who likes Pink color sit between the one who likes Red color and the one who likes White color. F sits to the immediate right of D.



III. Only D sits between F and B. B likes White color and sits opposite to C.

5. Ten persons P, Q, R, S, T, U, V, and W, X, Y are living in a five storey building such as ground floor is numbered as 1, above it is floor 2 then top floor is numbered as 5. Each of the floors has 2 flats in it as flat-1 and flat-2. Flat-1 of floor-2 is immediately above flat-1 of floor-1 and immediately below flat-1 of floor-3 and so on. In the same way flat-2 of floor-2 is immediately above flat-2 of floor-1 and immediately below flat-2 of floor-3 and so on. Who among the following lives in flat-2 of floor-4?

I. Q lives on floor-2 and T lives to the west of Q. There is two floors gap between Q and V.

II. X lives to the east of W. V does not live in the same flat number as W. There is a two floors gap between S and U.

III. P lives to the west of S but does not live on ground floor. Y lives above R. Y and R live in same flat number.

DID YOU KNOW?

While solving the data sufficiency questions based on puzzles you have to draw separate arrangement from every statement as you have to find the answer of your question even if you are not be able to draw the complete arrangement from that particular statement.

Directions (6-8): Each of the questions below, consist of a question and 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.

6. Some persons are sitting in a row such that all are facing in the north direction. Who among the following sits third to the left of M (less than 15 people sit in the row)?

I. M sits fourth to the right of A. Only two people sits between A and K. O sits on the sixth right of N

II. Only 2 person sits between N and D. M sits at the end of the row.

III. D sits eighth to the left of K. B sits third to the right of O.

7. In the question given below two conclusions followed by three statements. You have to choose the correct set of statements that logically satisfies the given conclusions



Conclusions:

Some Rhombus is not square.

No Ring are Rhombus.

Statements:

I. All rings are Square. No Rhombus is rectangle.

II. All ring are square. Some square are Rhombus.

III. Only Rectangle are square. Some rings are circle.

8. Some students are sitting in a row such that all are facing in the same direction. How many persons sit in the row?

I. A sits fifth to the right of G, who sits seventh to the right of M. Two persons sits between D and A. M does not sits at the end of the row. A, sits at the end of the row.

II. D sits sixth to the right of B. B sits third to the right of M.

III. A sits seventh to the right of M. M sits at the end of the row. Three persons sits between O and A, who does not sit fifth place from the end of the row.

DID YOU KNOW?

If there are two possible solutions occur from one statement or from all, then it will be an insufficient information as we are not be able to get a single solution.

Directions (9-10): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

(a) If statements I alone is sufficient to answer the question, but statement II alone is not sufficient to answer the question.

(b) If statement II alone is sufficient to answer the question, but statement I alone is not sufficient to answer the question.

(c) If statement either I or II is sufficient to answer the question.

(d) If both the statements I and II taken together are not sufficient to answer the questions.

(e) If both the statements I and II taken together are sufficient to answer the questions.

9. In a class of certain number of students, all of them are sitting in a row according to their rank. J's rank is 10th from the left end. What will be L's rank from the left end?



(I) K's rank is 5th from the right end and he is 4th from the right of H. Only three persons sit between H and D. D is 7th from the left end.

(II) O is exactly in between J and L. O is third to the left of H.

10. Six persons P, Q, R, S, T, and U are sitting around a circular table. Some of them are facing the center while some are facing away from the center. How many persons are facing inside?

(I) P sits third to the right of Q, who is facing outside. Both R and U are immediate neighbour of each other. S is not an immediate neighbour of Q.

(II) U sits second to the left of Q, who is sitting third to the left of P. R sits second to the right of T.

Directions (11-12): Each of the questions below consists of three statements numbered I, II and III given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

11. Five persons P, Q, R, S and T are standing in a row facing north in increasing order of their heights from left to right. That means the shortest one stands at the leftmost end while the tallest one stands at the rightmost end. Who among the following is the fourth tallest?

I. Q and S are shorter than R. S height is 172 cm. Only two persons are standing to the right of S.

II. Q's height is 178 cm. T is not an immediate neighbour of R.

III. Q is an immediate neighbour of T and S. More than two persons are standing to the left of P.

(a) Statement (I) and Statement (II) together are sufficient.

(b) Statement (II) and Statement (III) together are sufficient.

(c) Statement (I) and Statement (III) together are sufficient.

(d) All the statement (I), statement (II) and statement (III) together are sufficient.

(e) Either two of the given statements are sufficient.

12. A, B, C, D and E are five friends among the 15 persons who participated in quiz. Each of the 15 participants obtained different marks (a whole number). One of the participants among the given five friends obtained 11 marks. Who obtained 11 marks?

I. B obtained 4 marks. Least marks obtained by a person is 2. Third lowest scorer obtained either 5 or 6 marks.

II. Marks of C lies somewhere between D and A. There are only five participants whose marks lies between E and D. A obtained 3 more marks than B.

III. D scored 5 more marks than A. E scored 18 marks. Neither A nor B score more marks than D. There are only two candidates whose marks lies between C and A.

(a) Statement (I) and Statement (II) together are sufficient.



- (b) Any two statements together are sufficient.
- (c) Either statement (I) and statement (II) together or statements (III) are statement
- (d) All the statement (I), statement (II) and statement (III) together are sufficient.
- (e) None is sufficient.

DID YOU KNOW?

Now a days the questions of data sufficiency as seen in the exam are bit tricky and you have to be smart enough to extract the required information from it.

Directions (13-15): Each of the questions below consists of three statements numbered I, II and III given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Given answer:

- (a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.**
- (b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.**
- (c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.**
- (d) If the data even in both statements I and II together are not sufficient to answer the question.**
- (e) If the data in both statement I and II together are necessary to answer the question.**

13. Six persons P, Q, R, S, T and U are sitting around a circular table, are they all facing the center?

I. P sits second to the left of U. S sits second to the right of U. T does not sit opposite to S who sit second to the left of P. Both T and R are immediate neighbour of P. U is facing the center. R sits second to the right of T. Q sits second to the right of R. Both Q and S are facing same direction as P.

II. Q is second to the left of T. Only S is between Q and T. R is to immediate left of U. Q sits opposite to P. P is second to the right of S. T is second to the right of Q and second to the left of R. Both Q and P faces each other.

14. Five boxes D, V, F, N, K are placed in a row from west to east direction according to their weight in an increasing order. And also each of them is of different color. The box which is second lightest is of which color?

(I) F placed at one of the extreme end. Purple box is heavier than Red box. Neither box K nor V is the heaviest. Box D is not of Blue and Red color. Pink box is not heavier than Red box.

(II) Only one box is placed in between box K and V. Box D is heavier than Pink box. Box V is not placed adjacent to F. Box N is of Black color. Blue box is lighter than N. Neither K nor F is of Blue color. Blue box is heavier than Purple box.



15. Five persons K, L, M, N, O lives on five different floors such as bottom floor is numbered as 1 and top floor is numbered as 5. Also each of them born in different months of a year but no two person born in two consecutive months. The one who lives on fourth floor born in which of the following month?

(I) Three person lives between L and O. O is older than M and born in a month having 31 days. M lives on third floor and born in April. L is born in one of the month after July but in a month having 30 days.

(II) Only one person lives between K and N and K is younger than N. O does not live above M. N is born before L. K was not born in last month of the year and is younger than L. N was not born in a month of 30 days.

Directions (16-20): Each of the questions given below consists of a question and two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question.

(a) If statement I alone is sufficient to answer the question, but statement II by itself is not sufficient to answer the question.

(b) If statement II by itself is sufficient to answer the question, but statement I alone is not sufficient to answer the question.

(c) If statement either I or II is sufficient to answer the question.

(d) If both the statements I and II taken together are not sufficient to answer the question.

(e) If both the statements I and II taken together are sufficient to answer the question.

16. Conclusion: Some Milk are Coffee. Some Coffee are not Cold-drinks. Which of the following set of statement is required that logically satisfies given conclusions (Given statements to be true even if they seem to be at variance from commonly known facts).

Statement I: Some Milk are Drink. Some Coffee are Tea.

Statement II: All drink are Coffee. No Tea is Cold-drink.

17. Six persons A, B, C, D, E and F are sitting around a circular table. Are all facing towards the center?

Statement I: E sits second to the left of A, who is facing towards the center. C sits opposite to D. F sits to the immediate right of A. A sit second left of C and C does not sit between A and E. F sits second to right of D. F sits third left of E.

Statement II: F sits second left of B. E sits second right of C and is not an immediate neighbour of F. D sits third left of C. B is facing towards the center.

18. What is code of 'Allegation'?

Statement I: In certain code language, 'Speech audience popularity' is coded as- 'kl da bp' and 'Conference debate report' is coded as- 'nu ga tr'

Statement II: In certain code language, 'Deliver patience Speech' is coded as- 'bt hd kl' and 'Allegation conference popularity' is coded as- 'wa ga bp'.vv



19. Five persons P, Q, R, S, and T are sitting in a row facing north direction. Who among the following sits at extreme left end?

Statement I: Q is third to the left of P. T is not an immediate neighbour of P. S sits second to the right of R.

Statement II: T sits second to the left of P. More than two persons sit between Q and S. Q sits to the left of R.

20. Who among the following is the father of K?

I. L is the father of R. R is the brother-in-law of D. D is the wife of K. K is the son of M, who is the wife of L.

II. F is the son of K. F is married to G, who is the daughter-in-law of D. F is the grandson of M.

Directions (21-23): Each of the questions below, consist of a question and 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.

21. Some persons are sitting in a row such that all are facing in the north direction. Who among the following sits fourth to the left of D?

I. M sits third to the right of D. Only five persons sit between M and A. More than two person sits between M and N.

II. D sits second to the left of M, who sits sixth to the left of N. A sits third to the right of N.

III. More than six person sits between R and D. B sits exactly between N and A. B sits fifth to the right of R. Only one person sits between N and A.

22. In the question given below two conclusions followed by three sets of statement. You have to choose the correct set of statement that logically satisfies the given conclusions

Conclusion: I. some hands are not Socks.

II. No legs are socks.

I. All legs are Hands. Some Shoes are legs. No Legs are fingers.



II. Some watches are arm. All arms are fingers. All legs are Hands.

III. No Socks are Shoes. All legs are Shoes. Some Hands are finger.

23. Eight persons i.e. A, B, C, D, E, F, G and H are sitting around a circular table such that some of them face inside and some face outside. How many persons face outside?

I. A sits second to the right of E and second to the right of D. G and D faces opposite direction. C and G are the immediate neighbour of E. F does not face inside.

II. Not more than two persons sitting adjacent to each other face same direction. H sits second to the left of C, who sits third to the left of B. H and A face same direction. C and G face opposite direction.

III. A sits third to the left G, who sits second to the right of C. E is not the immediate neighbor of G.

Directions (24-25): Each of the questions below, consist of a question and 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.

24. Six lectures on different subjects i.e. Physics, Chemistry, Math's, Biology, Economics and English delivered by different professor i.e. A, B, C, D, E and F on the different days of the week starting from Monday to Saturday but not necessarily in the same order. Who among the following professor delivered the lecture on Wednesday and on which subject?

I. More than two professors delivered the lecture before the one who deliver the lecture of English. Three professors deliver the lecture between B and C, who delivered the lecture before B. C delivered the lecture of Biology. Only one professor delivered the lecture between B and the one who deliver the lecture of physics.

II. Two professor deliver the lecture between C and the one who deliver the lecture of English. Only two lectures were delivered between Physics and Math's. Two professors deliver the lecture between D and E. B does not delivered the lecture of economics. A delivered the lecture before F.

III. Only one professor deliver the lecture between F and the one who deliver the lecture of Math's. B delivered the lecture before the one who delivered the lecture on Math's. D delivers the lecture immediately after A, who delivers the lecture on Economics.



25. There are eight persons i.e. A, B, C, D, E, F, G and H are sitting in row such that some are facing towards north and some are facing towards south direction. How many persons face north direction?

I. Only one person sits on the right of A. Only three persons sits between C and A. A and C faces opposite direction. B sits second to the left of C. There are two vacant seats and none of the vacant seats are at the end of the row. G and B are not the immediate neighbour of the vacant seats.

II. D sits third to the left of G, who faces same direction as A. G does not sit at the end of the row. H and B face opposite direction. E faces North. H does not face north direction.

III. Immediate neighbours of G face opposite direction. Four persons sit between the two vacant seats. E sits third to the left of F. F does not sits at the end of the row. H and D faces opposite direction.

Directions (26-30): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement are sufficient to answer the question. Read both the statements and Give answer:

(a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

(b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

(c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.

(d) If the data even 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.

26. In a certain code language 'fi ku le ja' means 'Indian Cricket Premier League'. Then what is the code of 'league'? If,

I. In the given code language 'Premier league shifted venue' is written as 'le hi nu ku'.

II. In the given code language 'league venue cricket pune' is written as 'nu le fi un'.

27. How is N related to D?

I. N is the only child of R. D is father of M, who is brother-in-law of S. P is the brother of M. M is married to R. P is unmarried.

II. D is married to A. P is the son of N. Q is brother of M. N is married to M. Q is the only male child of A. S is the sister of N. A is a male

28. On which of the following day of the week (starting from Monday and ends on Sunday) match of CSK is scheduled?

I. Dhoni captain of CSK completely remembers that match is scheduled after Wednesday but not on Sunday.



II. Jadeja correctly remembers that the match of CSK is scheduled before Friday but after Monday.

29. Some persons i.e. P, Q, A, C, M, D and S are sitting in a row such that all are facing in the north direction, who among the following sits on the right end of the row?

I. Q sits third to the left of D and both do not sit at the end of the row. S sits fourth to the right of A and one of them sits at the end of the row. C sits third to the right of P. M is not the immediate neighbour of D.

II. D sits second to right of Q. One of the immediate neighbours of D sits fifth to the right of M. S sits second to the right of A. Neither P nor C sits at the end of the row. P and C are not the immediate neighbours of each other.

30. How many people are sitting around the circle (all are facing inside)?

I. Z is sitting third to the right of C, who is sitting third to the right of A. Three persons are sitting in between F and Z.

II. Two persons are sit in between A and F who is sitting second to the right of Z. C is sitting third right of A and Three person sit between Z and C.

Directions (31-34): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements. Give answer-

(a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

(b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

(c) If the data either in statement I alone or in statement II alone are 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.

31. A, B, C, D, E and F are sitting in a circle, some of them facing towards the center while some are facing away from the center of the circle. How many persons are facing inside?

I. F is on the immediate left of E. Only D is between B and E. C is immediate right of F. C is second to the left of B. A does not faces same direction as E. D and C faces opposite direction of A.

II. A is facing D. Only C is between A and B. Only F is between E and A. E sits second to the right of B. Both F and C face same direction but opposite to B. F does not sits to the immediate left E.

32. Amongst P, Q, R, S and T all of them are of different price. Also they are placed one above another. Which book is placed at the top?



I. Price of the book R is more than the price of book P. Only two books are placed between book R and P. Price of the book S is second costliest among all and is placed above T.

II. Price of the book Q is more than only P and T and costliest book is not placed at top. The third costliest book is exactly in the middle.

33. Six people viz. I, J, K, L, M and N lives in a Building on different floors from top to bottom (such as ground floor numbered as 1 and top is numbered as 6). Each of them likes different colours Black, White, Blue, Pink, Purple, and Grey. Which color is liked by the one who lives on 4th floor?

(I) only one person lives between L and M. J lives above I who likes Black color. There is a gap of three floors between J and L and both of them lives on odd number of floor. The one who lives on top floor likes Purple color.

(II) K likes White color. The one who likes Grey color lives above I. J does not like Grey color.

34. Six people viz. D, F, L, M, Q, R are sitting in a row some of them are facing north while some of them are facing south direction. Who sits to the immediate right of D?

(I) M sits third to right of R. Q sits second to the left of M. R is not an immediate neighbour of Q. D is not an immediate neighbor of Q.

(II) L sits third to the left of Q who is facing north direction. Both the immediate neighbours of M faces same direction as M.

Directions (35): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement are sufficient to answer the question. Read both the statements and Give answer:

(a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.

(b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.

(c) If the data either in statement I alone or in statement II alone are sufficient to answer the question.

(d) If the data even 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.

35. Five friends J, K, L, M, N born on different dates 8, 13, 19, 24, 31 but not necessarily in the same order in the month of March and June in the same year. Only one person born on one of the given date. M is born on which of the following date?

I. Both M and J are not born on even date of the month. M is born before J. Two persons are born in between M and N.

II. Nobody is born after K. L is born on a date in between M and J. L is born on an even date. M does not born on 13 and N does not born on 19.



Directions (36-37): Each of the questions below, consist of a question and 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.

36. Seven persons i.e. A, B, C, D, E, F and G are sitting around a circular table. Are all the persons facing towards the centre of the table?

I. A sits third to the right of C, who sits second to the left of D. Only two people sits between G and A. B is not the immediate neighbour of C. C faces inside.

II. D sits third to the left of B. and second to the right of E. C sits third to the right of F, who is not the immediate neighbour of E.

III. F sits third to the right of B. A and G faces same direction. F sits second to the left of A. E sits third to the right of F, and on the immediate left of B. E and B faces same direction. B is not an immediate neighbour of A.

37. There are 9 members i.e. A, B, D, G, H, R, Z, I and K in a family having three generation. How is R related to Z?

I. Z has three children. C is the unmarried brother of G. B is the sister-in- law of D. There are three married couple in the family.

II. D is the daughter in law of A, who is the father in law of I. K, is the cousin of R.

III. Z has only one daughter. I is the brother-in-law of C. B is the mother of K.

Directions (38-40): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give answer.

- (a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
- (b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.



(c) If the data either in statement I alone or in statement II alone are 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.

38. Eight people viz. G, H, I, J, K, L, M and N lives in a Building on different floors from top to bottom (such as ground floor numbered as 1 and top is numbered as 8) where I lives on floor number 6. Who among the following lives on 4th floor?

(I) Only one person lives between L and M. J lives above I. There is a gap of three floors between J and L and both of them live on odd number of floor.

(II) Three persons live between K and H. N lives just above H who lives on even numbered floor.

39. Seven people viz. A, D, F, L, M, Q, R are sitting in a row some of them are facing north while some of them are facing south direction. R sits at an extreme end of the row. F is not facing south direction. D sits third to the left of F. Who sits to the immediate right of F?

(I) M sits third to right of R. Q sits second to the left of M. D is not an immediate neighbor of Q.

(II) A sits third to the left of Q. F is an immediate neighbor of M. F sits second to the right of L.

40. In a certain code language - 'benefits life in loss' is coded as 'hlt sa rtv mlp' then what will be the code of 'Benefits'?

(I) The code of 'live life trouble benefits' is 'mlp hlt ngi snk',

(II) The code of 'live happy feeling at' is 'ngi riy nop hus'.

Solutions

1. (a); From I



	Case-1		Case-2	
Days	Person	Floors	Person	Floors
Monday	R			
Tuesday	P/		R	
Wednesday	T/	8th	P	8th
Thursday	S		T	
Friday	P/		S	
Saturday	T/			

From II,

	Case-1		Case-2	
Days	Person	Floors	Person	Floors
Monday		1st		
Tuesday	T			1st
Wednesday			T	
Thursday				
Friday		5th		
Saturday	U		U	5th

Now, from I, II-

Days	Person	Floors
Monday	R	9th
Tuesday	P	1st
Wednesday	T	8th
Thursday	S	
Friday	Q	
Saturday	U	5th

So, clearly P has office on 1st floor attend office on Tuesday.

2. (d); Even by combining both I and II we cannot find the input of the output given in the question.

3. (d); From I,



Person	Month
E	February
A	September

From II,

Person	Month
B	December
C	(31)

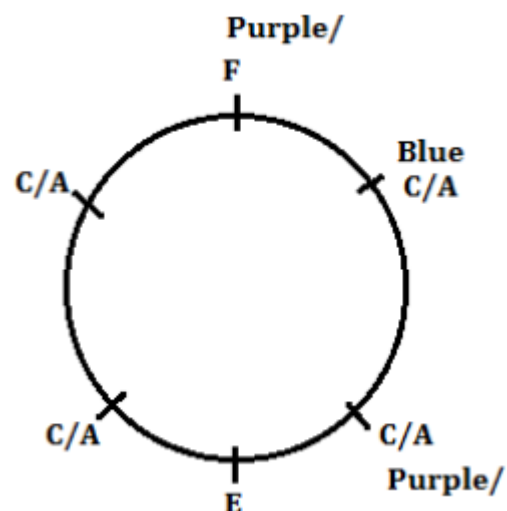
From I and II,

Persons	Months
A	September
B	December
D	May
C	July/August
E	February
F	October

TM

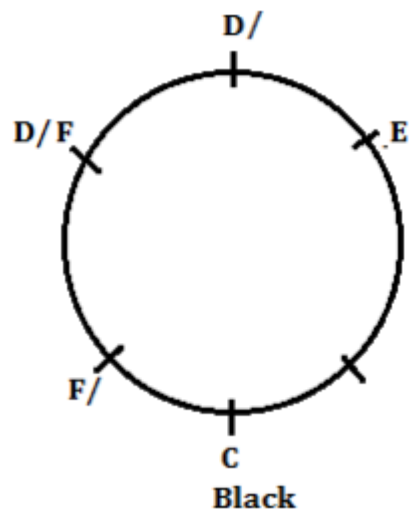
So, even by combining both I and II we cannot find that C was born in which of the following month.

4. (a); From I,

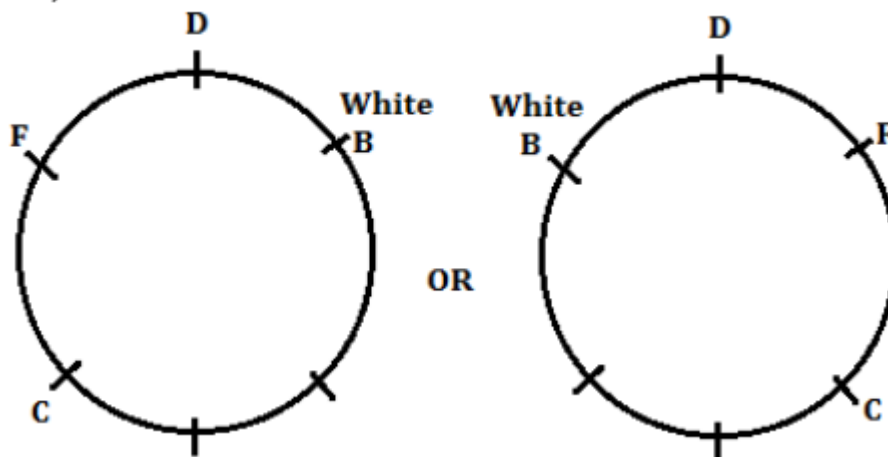




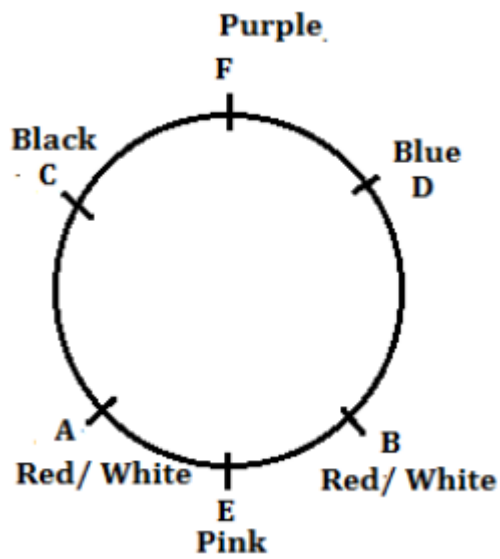
From II,



From III,



From I and II,



So, we get that the one who is sitting second to the left of C is D and like Blue color.

5. (d); From I,

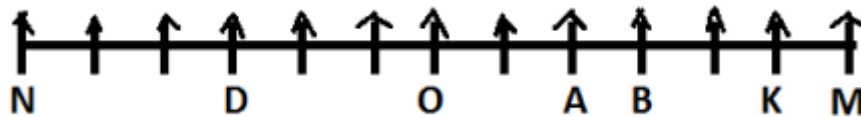
Floors	Flat-1	Flat-2
5	V/	V/
4		
3		
2	T	Q
1		

From I, II and III-

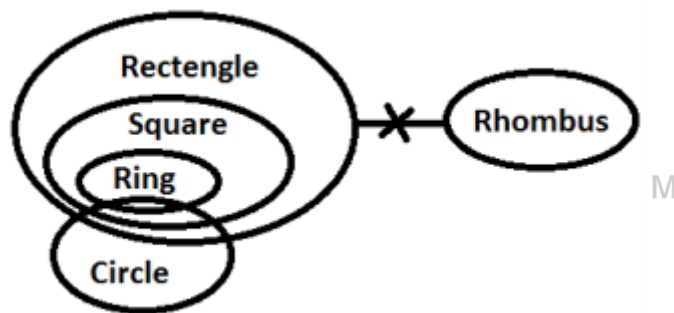
Floors	Flat-1	Flat-2
5	Y	V
4	P	S
3	W	X
2	T	Q
1	R	U



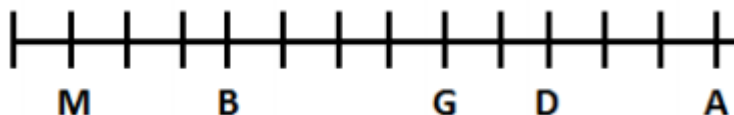
6. (d); The data in all three statements I, II and III together are necessary to answer the question. From statement I and III M sits at the end of the row and fourth to the right of A. B sits third to the right of O. less than 15 people sits in the row. Only two people sits between A and K and D sits eighth to the left of K so K sits third to the right of A because if K sits third to the left of A and we placed D then there will be sixteen persons in the row which can't be possible. Now by using statement II that Only 2 person sits between N and D. M sits at the end of the row. We get our final answer B sits third to the left of M.



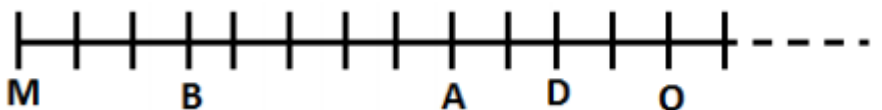
7. (b); Using statement I and III we can find the definite relation between Rhombus and Square and between Ring and Rhombus which is not possible if we use statement II.



8. (e); From the statements, I, II

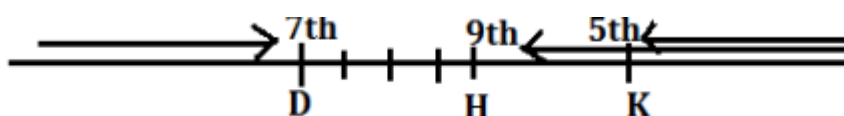


As it is given that M does not sits at the end of the but it is also not mention in any statement that how many persons sits on the left of M. Hence, it cannot get confirmed how many person sits in the row. From statement II and III,

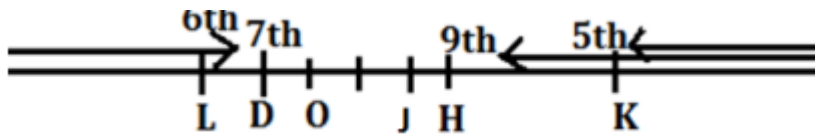


From these we cannot conclude that O sitting at the end of the row or not.

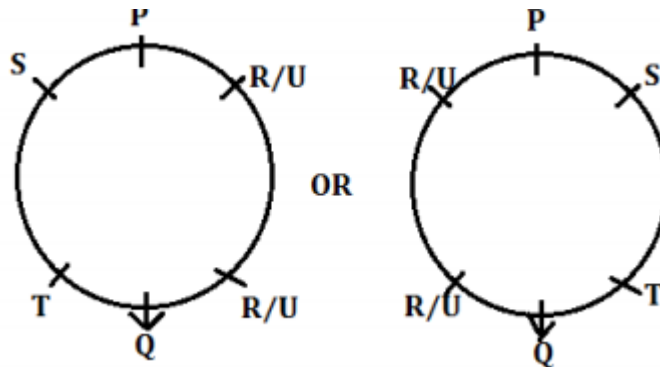
9. (e); From I,



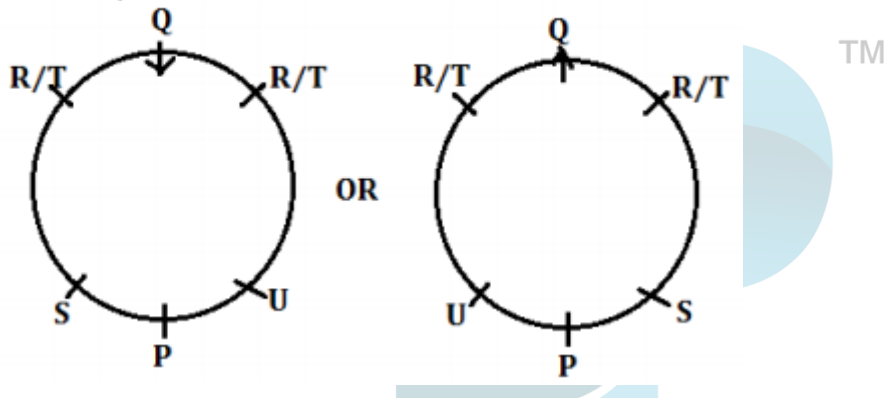
From I and II,



10.(d); From I,



From II,



Even by combining both the statements I and II together we get that both the are not sufficient to answer the questions.

11.(c); From (I) and (III), The arrangement of person facing north in increasing order of their heights from left to right is----- $T < Q < S < P/R < P/R$

12.(d); Using the information given in statement (I), (II) and (III), From (I) B obtained 4 marks. Least marks obtained by a person is

2. Third lowest scorer obtained either 5 or 6 marks. It means B is the second least scorer. From (II) A obtained 3 more marks than B. It means A obtained seven marks he could be either the fourth or the fifth lowest scorer. Marks of C lies somewhere between D and A. From (III) D scored 5 more marks than A. It means D scored 12 marks. There are only two candidates whose marks lies between C and A. E scored 18 marks.

Rank	Person	Marks
1		2
2	B	4
3		5/6



4	A	7
5		
6		
7	C	
8	D	12
9		
10		
11		
12		
13		
14		
15		

Or

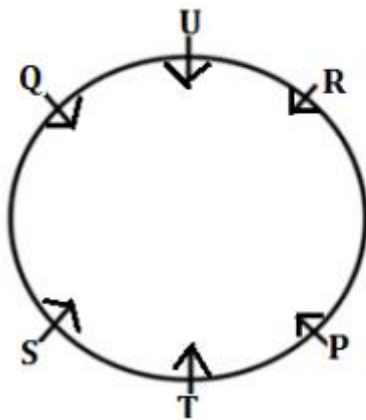
Rank	Person	Marks
1		2
2	B	4
3		5
4		6
5	A	7
6		
7		
8	C	
9	D	12
10		
11		
12		
13		
14		
15		

And as we know that One of the participant among the given five friends obtained 11 marks it means C must have scored 11 marks.

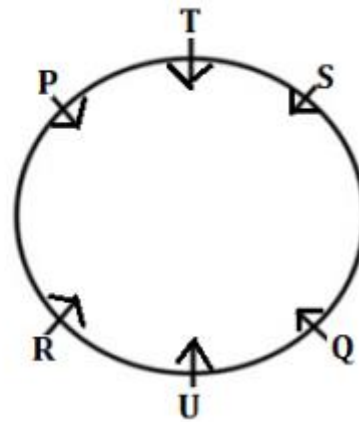
13.(c);



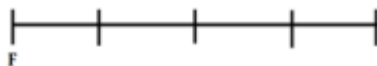
From II,



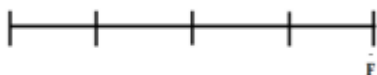
From II,



14.(e); From I,

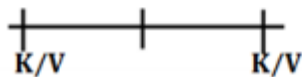


OR



And, Pink < Red < Purple

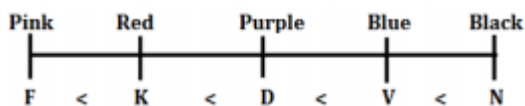
From II,



Purple < Blue < Black (N) and Pink < D

From both I and II,

We get that F is the lightest box and is of Pink color and K is second lightest and is of Red color.



15.(d); From I,

5. L/O

4.

3. M April

2.

1. O/L

And L can be born either in September or November. And O is born in January.



From II,

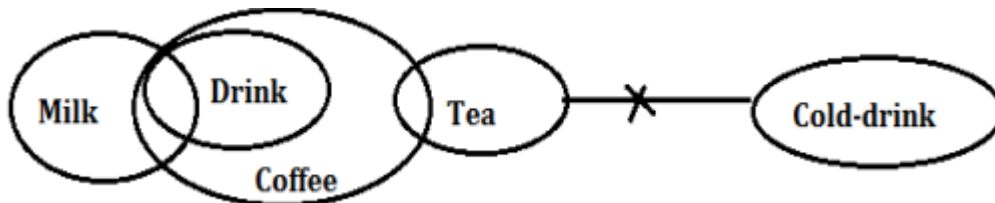
$$K < L < N$$

From both I and II,

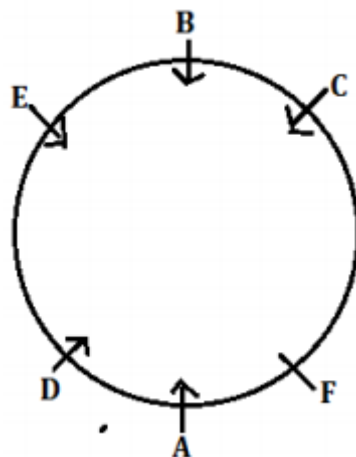
Even by combining both the statements we only know that K is born in November and N is born in July but we cannot find that either K or N live on 4th floor, so both together are not sufficient.

5. L September
4. K/N November / July
3. M April
2. K/N November / July
1. O January

16.(e); By using both statement I and II-

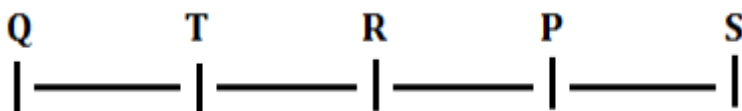


17.(d); Even by combining both statement I and II the direction of facing of F cannot be determined. So, both the statements I and II taken together are not sufficient to answer the question.



18. (e); By using both statement I and II the code of Allegation will be- wa.

19. (c); From either I or II we will get that Q sits at extreme left end of the row.





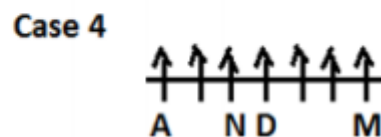
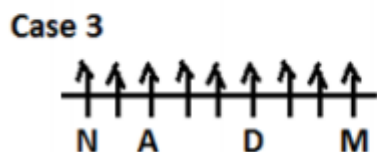
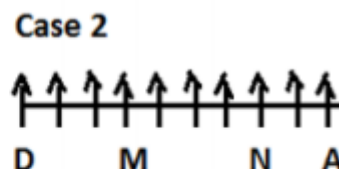
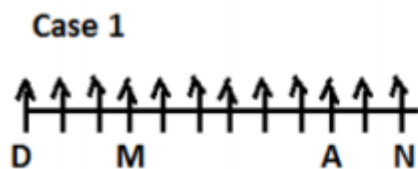
20.(a); Statement I alone is sufficient to answer the question.

$$\begin{array}{l} L(+) \equiv M(-) \\ | \\ R(+) - K(+) \equiv D(-) \end{array}$$

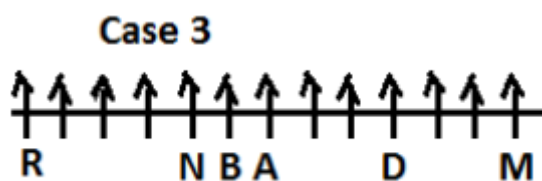
But from Statement II we cannot find that M is either father or mother of K. So, statement II by itself is not sufficient to answer the question.

21.(b); The statement I and III together are sufficient to answer the question;

Step 1: M sits third to the right of D. Only five persons sits between M and A. More than two person sits between M and N. Only one person sits between N and A.



Step 2: B sits exactly between N and A. B sits fifth to the right of R. More than six person sits between R and D. So, case 1 Case 2 and case 4 gets eliminated.



Hence, B sits fourth to the left of D.

22.(c); Combining both the statements II and III we get,

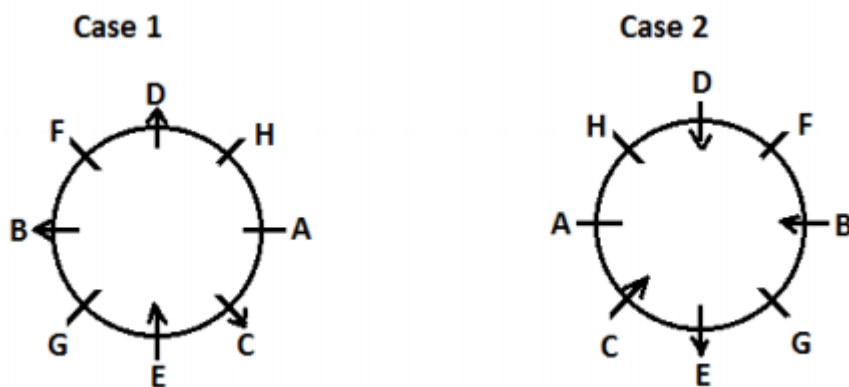


I. From the venn diagram it is clear that all legs are hand, all legs are shoes and no shoes is socks. Hence, we can conclude that some hands are not socks.

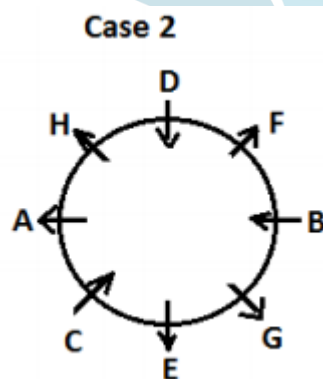


II. From the venn diagram it is clear that all legs are shoes and no shoes are socks. Hence, we can conclude that no legs are socks.

23. (a); Using statements, I and II. A sit second to the right of E and second to the right of D. C and G are the immediate neighbour of E. H sits second to the left of C, who sits third to the left of B.



Now, not more than two persons sitting adjacent to each other faces same direction. F does not face inside. H and A face same direction. C and G face opposite direction. So, case 1 gets eliminated.



Therefore, five person faces outside.

24.(b); From statement I and III More than two professors delivered the lecture before the one who deliver the lecture of English. Three professors deliver the lecture between B and C, who delivered the lecture before B. C delivered the lecture of Biology. B delivered the lecture before the one who delivered the lecture on Math's. Only one professor delivered the lecture between B and the one who deliver the lecture of physics.



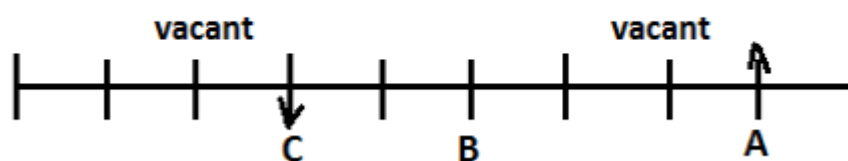
	Case 1		Case 2	
Days	Professor	Subject	Professor	Subject
Monday	C	Biology	C	Biology
Tuesday				
Wednesday		Physics		Physics
Thursday		English		
Friday	B		B	English
Saturday		Math's		Math's

Only one professor delivers the lecture between F and the one who deliver the lecture of Math's. D delivers the lecture immediately after A, who delivers the lecture on Economics. So, the final arrangement is—

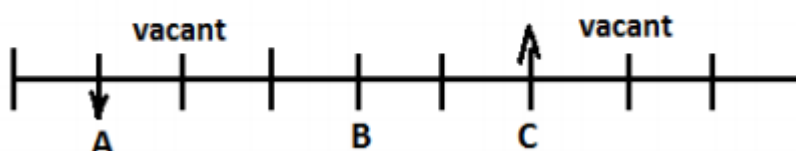
Days	Professor	Subject
Monday	C	Biology
Tuesday	A	Economics
Wednesday	D	Physics
Thursday	F	English / Chemistry
Friday	B	Chemistry / English
Saturday	E	Math's

25.(d); Using the given informations from I, II and III, Four persons sits between the two vacant seats. Only one person sits on the right of A. There are two vacant seats and none of the vacant seats are at the end of the row. G and B is not the immediate neighbour of the vacant seats. B sits second to the left of C. A and C faces opposite direction.

Case 1



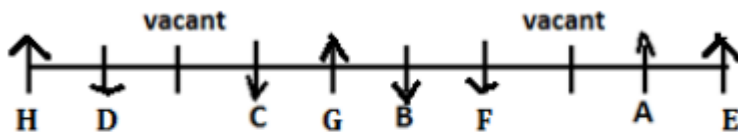
Case 2



D sits third to the left of G, who faces same direction as A. G does not sit at the end of the row. Immediate neighbours of G face opposite direction. E sits third to the left of F. F does not sits at the end of the row. H and B face opposite direction. E faces north. H and D faces opposite direction.



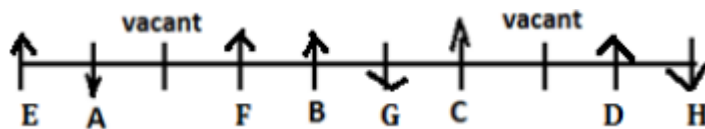
Case 1



Case 2



H does not face north direction. So, from this case-1 will be eliminated. And the final arrangement is-----

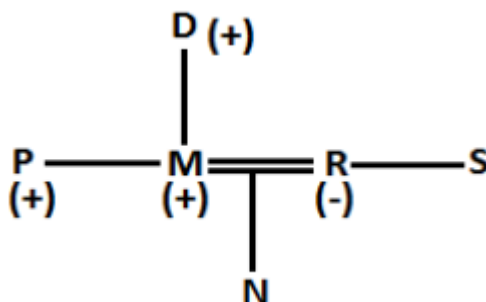


26.(e); Using Statement I and II together,

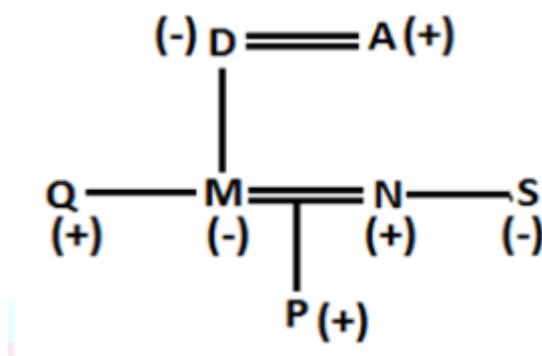
Words	Codes
Indian	ja
Cricket	fi
League	le
Venue	nu
Premier	ku
Shifted	hi
pune	un

The code for League is 'le'

27.(b); From statement I, we can't determine the gender of N.



From the statement II,



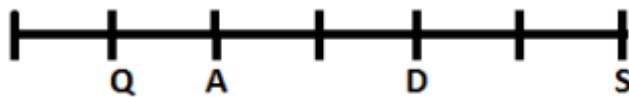
N is the son-in-law of D.

28.(e); From statement I, Dhoni remembers that the match is scheduled on either Thursday, Friday or on Saturday. From Statement II, Jadeja remembers that the match is scheduled either on Tuesday, Wednesday or on Thursday. So, using both the statement CSK match is scheduled on Thursday.

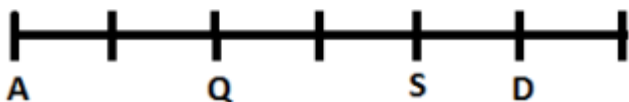
29.(c); From Statement 1:

Step 1: From the given statement I, Q sits third to the left of D and both does not sit at the end of the row. S sits fourth to the right of A and of them sits at the end of the row. There will be two possible cases

Case 1

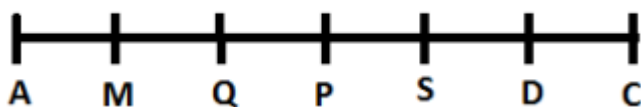


Case 2



Step 2: Now, C sit third to the right of P. M is not the immediate neighbour of D. So, case 1 will be eliminated and we get our final answer,

Case 2

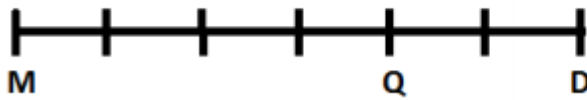


From Statement II,

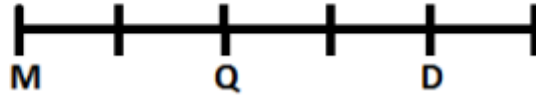
Step 1: As it is given that, D sits second to right of Q. One of the immediate neighbours of D sits fifth to the right of M. So, there will be two possible cases,



Case 1

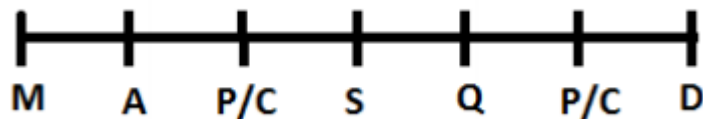


Case 2



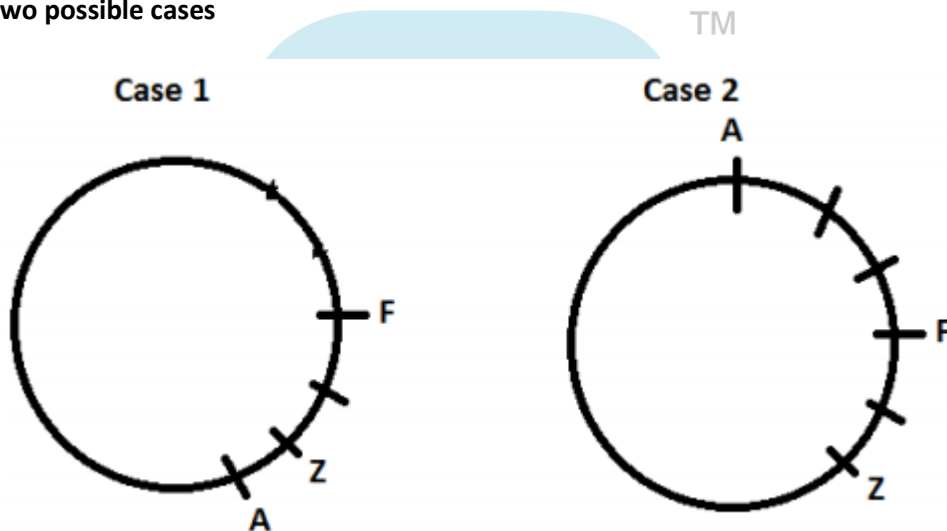
Step 2: Now, S sits second to the right of A. Neither P nor C sits at the end of the row. Neither P nor C are the immediate neighbours of each other. So, case 2 will be eliminated and we get our final answer,

Case 1

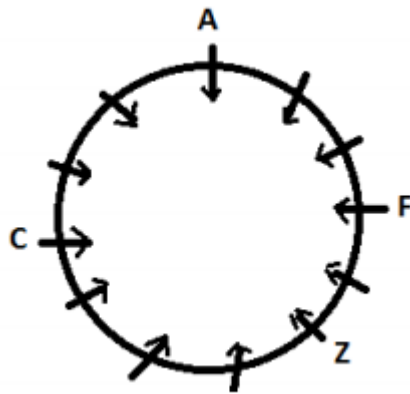


30.(b); From statement II,

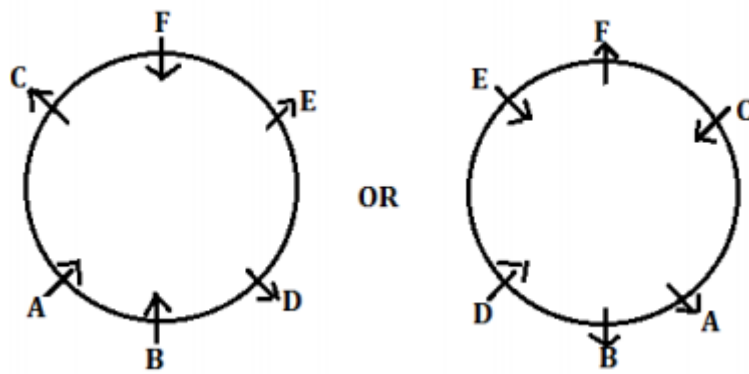
Step 1: Using the given conditions, two persons are sit in between A and F who is sitting second to the right of Z. There will be two possible cases



Step 2: Now, C is sitting third right of A, So, case 1 will be eliminated. Continuing with step 2, Three person sit between Z and C. Hence, we get our final answer

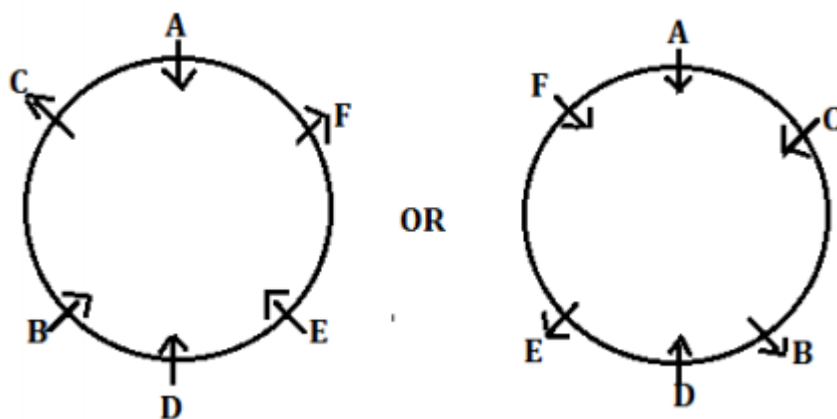


31.(c); From I, we get two possible case-



From both of the above cases we get that three persons are facing inside.

From II,



From both of the above cases we get that four persons are facing inside.

So, either I or II is sufficient to answer the question.

32.(d); From I,



R>P and > S> > >

Books
R/P
R/P

From II, Q> P, T

Books
Q

From I and II,

R>S>Q>P/T>P/T

Books
S
R/P
Q
T
R/P

OR

Books
P
S
Q
R
T

As, even by combining both we can say either book S or P is placed at top. So, data in both statements I and II together are not sufficient to answer the question.

33.(e); From I,



Floors	Persons	Colours
6		Purple
5	J	
4	I/	Black/
3	M	
2	I/	Black/
1	L	

From II, K likes White color. The one who likes Grey color lives above I.

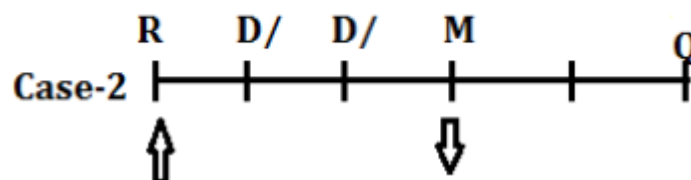
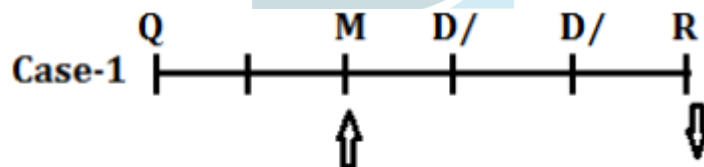
From I and II,

Floors	Persons	Colours
6		Purple
5	J	Grey/
4	K	White
3	M	Grey/
2	I	Black
1	L	

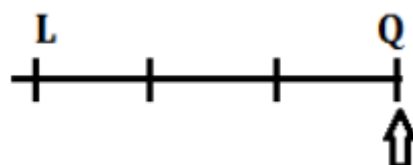
TM

So, from both I and II we get that K lives on 4th floor and likes White colour

34.(d); From I,

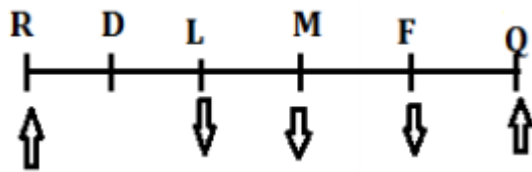


From II,





From I and II,



Even by combining I and II we cannot get the direction of D, so data in both statements I and II together are not sufficient to answer the question.

35.(e); From statement II- L can be born on either 24 March or 8 June. From statement I and II- When L is born on 24 March

13/19	24	31	8	13/19
March	March	March	June	June
M	L	J	N	K

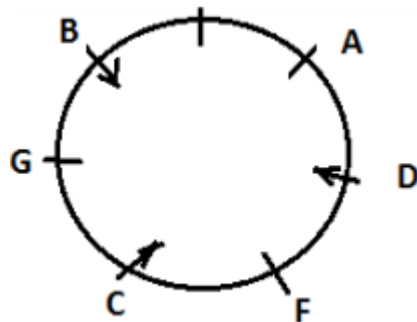
When L is born on 8 June

31	8	13	19	24
March	June	June	June	June
M	L	J	N	K

But it is given in statement II that M does not born on 13 and N does not born on 19 So, final arrangement from both statement I and II-

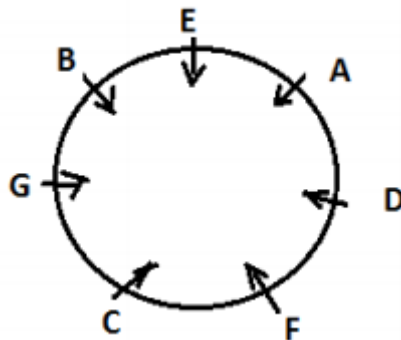
19	24	31	8	13
March	March	March	June	June
M	L	J	N	K

36.(b); A sits third to the right of C, who sits second to the left of D. Only two people sits between G and A. B is not the immediate neighbour of C. F sits third to the right of B. C faces inside. B is not an immediate neighbour of A.

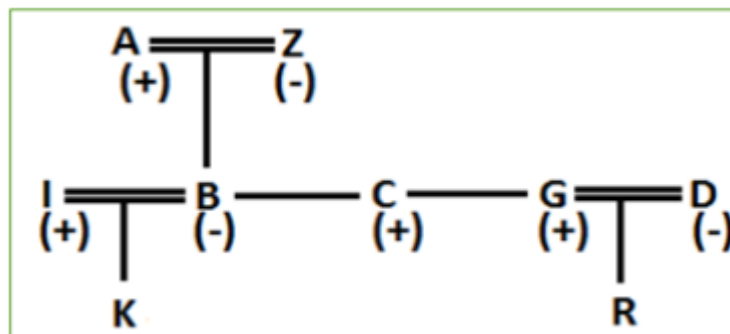




A and G faces same direction. F sits second to the left of A. E sits third to the right of F, and on the immediate left of B. E and B faces same direction.



37.(e);



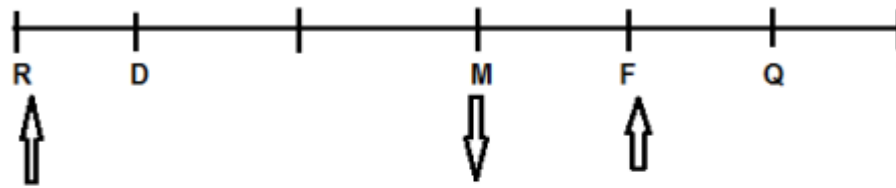
38.(b); Only statement II is sufficient to answer the question as from II statement it is clear that H lives on 4th floor. Statement I is not required to answer the question.

Floors	Persons
8	K
7	
6	I
5	N
4	H
3	
2	
1	

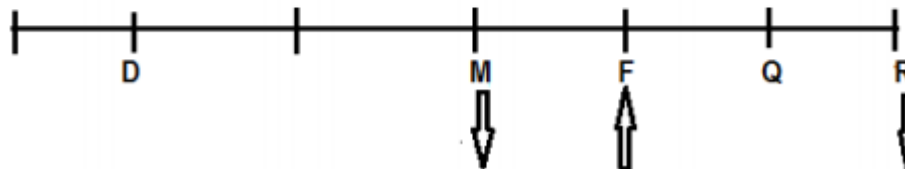
39.(a); From Only statement I there will be two possible cases-----



Case 1-



Case 2-



From both possible cases it is clear that Q sits to the immediate right of F. So only Statement I alone is sufficient to answer the questions but Statement II alone is not sufficient to answer the question.

40.(d); Statement I and II together are not sufficient to answer the question as by combining both I and II together we get the code of Benefit can be either mlp or hlt.

