# IBPS PO Pre 2017 Reasoning Question Paper with Solution (DOWNLOAD PDF) 

Direction: Read the information carefully and answer the given question.

Ten people are sitting in two parallel rows, containing five people. In one row, J, K, L, M and N are seated and all of them are facing north and in the second row, $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}$ and T are seated and all of them are facing south, not necessarily in the same order. Each person also likes a different colour namely, Orange, Black, Violet, Blue, Yellow, Grey, Green, Red, White and Pink, not necessarily in the same order.

N sits exactly in the centre of the row and faces the one who likes Yellow. Only one person sits between $S$ and the one who likes Yellow. S faces one of the immediate neighbours of the one who likes Grey. Only two people sit between K and the one who likes Grey. K faces the one who likes Red. $P$ faces immediate neighbours of $L$. $P$ does not like Red. $M$ is an immediate neighbour of $L$. The one who likes Blue is not an immediate neighbour of S . T is not an immediate neighbour of $P$ and faces the one who likes Black. T does not sit at the extreme end of the line. $R$ faces the one who likes White. R
does not like Yellow. The one who likes Pink faces north. The one who likes Orange sits to the immediate right of the person who likes Green. $S$ does not like Orange. Violet sits opposite to the person who sits left of the person who likes Orange.

1. Which of the following pairs represent the people sitting at extreme end of the rows?
A. S, M
B. $\mathrm{Q}, \mathrm{L}$
C. $\mathrm{P}, \mathrm{N}$
D. Q, J
E. R, L
2. Who amongst the following likes Blue?
A. S
B. $P$
C. R
D. T
E. Q
3. Who amongst the following is an immediate neighbour of the one who likes Pink?
A. The one who likes Grey
B. The one who likes Green
C. K
D. The one who likes White
E. None of these
4. Which of the following colour does Q like?
A. Orange
B. Yellow
C. Grey
D. Green
E. Red
5. Which of the following statements is definitely true as per the given arrangement?
A. L faces R
B. Q likes Red
C. Q is an immediate neighbour of P
D. The one who likes White is an immediate neighbour of $P$
E . The one who likes Violet faces N

Direction: In these questions, the relationship between two elements is shown in the statements. These statements are followed by two conclusions.

## 6. Statements:

$K>R=L, P>L, R \geq S$

## Conclusions:

I. $\mathrm{S}<\mathrm{L}$
II. $L=S$
A. If only conclusion I follow.
B. If only conclusion II follow.
C. If either conclusion I or conclusion II follows.
D. If neither conclusion I nor II follows.
E. If both conclusions I and II follow.

Direction: In these questions, the relationship between two elements is shown in the statements. These statements are followed by two conclusions.
7. Statements:

Z $<\mathrm{L}<\mathrm{W}=\mathrm{N}=\mathrm{K} \leq \mathrm{A}$

## Conclusions:

I. $A>L$
II. $Z=A$
A. If only conclusion I follow.
B. If only conclusion II follow.
C. If either conclusion I or conclusion II follows.
D. If neither conclusion I nor II follows.
E. If both conclusion I and II follows.

Direction: In these questions, the relationship between two elements is shown in the statements. These statements are followed by two conclusions.

## 8. Statements:

$Y>A<N, Y=B<P$

## Conclusions:

I. $\mathrm{P}>\mathrm{A}$
II. $N>B$
A. If only conclusion I follow.
B. If only conclusion II follow.
C. If either conclusion I or conclusion II follows.
D. If neither conclusion I nor II follows.
E. If both conclusion I and II follows.

Direction: In these questions, the relationship between two elements is shown in the statements. These statements are followed by two conclusions.
9. Statement:

X = M < A < S = T < R

## Conclusions:

I. $M=T$
II. $\mathrm{R}>\mathrm{A}$
A. Only conclusion I follow
B. Only conclusion II follow
C. Either conclusion I or conclusion II follows
D. Neither conclusion I nor II follows
E. Both conclusions I and II follow

Direction: In these questions, the relationship between two elements is shown in the statements. These statements are followed by two conclusions. \#\# \#DONE\#\#\#
10. Statement:
$A=M>P, N>R, A>T$

## Conclusions:

I. $T=P$
II. $\mathrm{R}<\mathrm{A}$
A. If only conclusion I follow.
B. If only conclusion II follow.
C. If either conclusion I or conclusion II follows.
D. If neither conclusion I nor II follows.
E. If both conclusion I and II follows.

Direction: Study the information given below and answer the questions based on it.

Eight boxes are arranged from top to bottom. Box number 1 is at the top position and box number 8 is at the bottom position. Their colors are i.e. Brown, Black, Red, White, Pink, Blue, Yellow and Green, not necessarily in the same order.

Two boxes are between Black and Pink boxes. The blue box is placed at an even numbered position but not at $8^{\text {th }}$ position. One box is between Blue and White box. The White box is above the Blue box. The number of boxes above White box is same as the number of boxes below Pink box. There is one box between green and red box. The green box is placed above red box. The number of boxes between Yellow and Pink box is same as Brown and Blue box.
11. Which of the following colored box is kept at the top position?
A. Red
B. Black
C. Green
D. White
E. Yellow
12. How many boxes are kept between Red and Yellow boxes?
A. 0
B. 1
C. 2
D. 3
E. 4
13.What is the position of Brown box?
A. $2^{\text {nd }}$
B. $4^{\text {th }}$
C. $7^{\text {th }}$
D. $6^{\text {th }}$
E. $8^{\text {th }}$
14. Which of the following combination of position and color is correct?
A. Red-1 ${ }^{\text {st }}$
B. Yellow- $7^{\text {th }}$
C. Green-3rd
D. None is correct
E. Pink-6 ${ }^{\text {th }}$
15.Which of the following colored box is not kept above the Pink coloured box?
A. White
B. Green
C. Red
D. Blue
E. Black

Direction: Study the information given below and answer the questions based on it.

Eight friends C, D, F, G, L, O, P and $Y$ are sitting on a circular table. Some of them are facing inside while others are facing outside. C sits second to the left of $Y$. $G$ and $C$ are the immediate neighbours. $Y$ sits third to the right of $O$, who is not sitting immediately to C. P, who faces outside sits second to the right of $D$ who is facing inside. F and $G$ are sitting opposite to each other. $D, G$ and $L$ are facing in the same direction. $P$ and $C$ face in the same direction which is opposite to that of G. At least two persons sit between $F$ and $P$ and $P$ is not a neighbour of F.

16. Who among the following is facing outside?
A. G
B. $Y$
C. O
D. L
E. D
17. What is the position of P with respect to C?
A. Second to the left
B. Third to the right
C. Second to the right
D. Fourth to the left
E. Third to the left
18.Who among the following is sitting opposite to L?
A. P
B. C
C. O
D. $M$
E. D
19. Which of the following combination is not true?
A. C - Outside
B. D - Inside
C. G - Inside
D. O-Inside
E. L - Inside
20.How many persons are sitting between $D$ and $Y$ if counted anticlockwise starting from D ?
A. Two
B. Three
C. More than 4
D. None
E. One

Directions: In each question below are three statements followed by two conclusions numbered I and II. You have to take the three given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

## 21. Statements:

All numbers are digits.
All alphabets are numbers.
All words are alphabets.

## Conclusions:

I. All words are digits.
II. Some numbers are not words.
A. If only Conclusion I follows.
B. If only Conclusion II follows.
C. If either Conclusion I or Conclusion II follows
D. If neither Conclusion I nor Conclusion II follows
E. If both Conclusions I and II follow.


Direction: In the following question, some statements are followed by some conclusions. Assuming the given statements to be true, find which of the following conclusions follow the given statements and choose appropriate answer choice.

## 22. Statements:

Some tables are chairs.
All chairs are benches.
All benches are desks.

## Conclusions:

I. Some desks are tables.
II. Some benches are tables.
III. Some desks are chairs.
A. Only I follows
B. Only II follows
C. Only III follows
D. Only II and III follow
E. All follow

Directions: In the question below are given three statements followed by three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

## 23. Statements:

Some bags are plates.
Some plates are chairs.
All chairs are tables.

## Conclusions:

I. Some tables are plates.
II. Some chairs are bags.
III. No chair is bag
A. Only I follow
B. Only II follows
C. Only III follows
D. Only II and III follow
E. Either II or III and I follow

Direction: In each questions given below, three statements are followed by two conclusions numbered I and II. You have to take the three given statements to be true even if they seem to be at variance with the commonly known facts. Read the conclusions and decide which conclusion logically follows from the three given statement disregarding commonly known facts. Give answer:

## 24. Statements:

Some books are papers.
No paper is magazine.
All magazines are pens.
Conclusions:
I. Some books are not magazines.
II. Some books are magazines.

A. Only conclusion I follows.
B. Only conclusion II follows.
C. Either conclusion I or II follows.
D. Neither conclusion I nor II follows.
E. Both conclusions I and II follow.

Direction: In each of the following questions three statements are given and these statements are followed by two conclusions numbered (1) and (2). You have to take the given three statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

## 25. Statements:

All books are novels.
No novel is a magazine.
All magazines are newspapers.

## Conclusions:

I. No book is a magazine.
II. Some newspapers are novels.
A. If only (I) conclusion follows
B. If only (II) conclusion follows
C. If either (I) or (II) follows
D. If neither (I) nor (II) follows and
E. If both (I) and (II) follow

Direction: Study the following information carefully and answer the questions given below:

Seven friends- A, B, C, D, E, F and G likes different colours- Red, Pink, Brown, Blue, Black, Green and Orange but not necessarily in the same order. They go for a picnic on three different days of the weekTuesday, Wednesday and Sunday. At least two and not more than three persons go to a picnic on the same day.

D likes Green and he does not go for the picnic on Sunday. The one who likes Black goes for picnic on Wednesday. A goes for picnic on Tuesday only with E and he likes Red. B and C do not go for a picnic on the same day. The one who goes to picnic on Tuesday does not like Brown colour. F likes Blue but does not go to picnic on Wednesday. G goes to picnic on the same day as F . C likes Pink colour.
26. Who among the following likes black?
A. B
B. G
C. E
D. F
E. None of these
27. Which of the following combination is true?
A. E-Wednesday-Orange
B. G-Sunday-Brown
C. F-Sunday-Brown
D. D-Wednesday-Pink
E. None of these
28. Which of the following group of persons goes to picnic on Sunday?
A. F,G
B. C,F,G
C. $\mathrm{G}, \mathrm{E}, \mathrm{F}$
D. F,C
E. None of these
29.E likes which color?
A. Blue
B. Pink
C. Brown
D. Green
E. None of these
30.B goes to picnic on which of the following day?
A. Tuesday
B. Wednesday
C. Sunday
D. Can't be determined
E. None of these

Direction: Study the following information and answer the given questions.

S is the wife of J. A is the only son of X . O is the only sister of $\mathrm{N} . \mathrm{Y}$ is the father of A . J and X are siblings. $S$ is the mother of two children and neither of them is a son. There is no other person in the family.
31. What is the relation of O with respect to the X ?
A. Uncle
B. Niece
C. Aunt
D. Sister
E. Can't be determined
32.What is the relation of $A$ with respect to the person N ?
A. Brother-in-law
B. Cousin
C. Sister
D. Father
E. Uncle

Direction: Study the following information carefully and answer the questions given below:

Point $R$ is to the northwest of point U , which is to the south of point Q , which is to the west of point S. Point T is to the north of point S and to the east of point $P$, which is in the same line as $Q$ and $U . R$ is in the same line as S and Q .

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33. If the distance between $T$ and $S$ is 5 m and that between Q and U is 3 m , then what is the distance between point $P$ and $U$ ?
A. 6 m
B. 7 m
C. 9 m
D. 8 m
E. None of these
34.Point $R$ is in which direction with respect to Point $T$ ?
A. Northwest
B. Northeast
C. Southwest
D. Southeast
E. None of these
35.How many such pairs of letters are there in the word HORIZONTAL, each of which has as many letters between them in the word (in both forward and backward directions) as they have between them in the English Language alphabetical series?
A. One
B. Two
C. Three
D. More than three
E. None

## ANSWERS

1. Ans. E.

| R(Red) | $T$ (Blue) | Q(Yellow) | $P$ (Orange) | $S$ (Green) |
| :--- | :--- | :--- | :--- | :--- |
| $K$ (White) | $J$ (Black) | $N$ (Pink) | $M$ (Grey) | L(Violet) |

2. Ans. D.

| R(Red) | $T$ (Blue) | Q(Yellow) | P(Orange) | S(Green) |
| :--- | :--- | :--- | :--- | :--- |
| K(White) | J(Black) | N(Pink) | M(Grey) | L(Violet) |

3. Ans. A.

| R(Red) | T(Blue) | Q(Yellow) | P(Orange) | S(Green) |
| :--- | :--- | :--- | :--- | :--- |
| K(White) | J(Black) | N(Pink) | M(Grey) | L(Violet) |

4. Ans. B.

| R(Red) | $T$ (Blue) | Q(Yellow) | $P$ (Orange) | S(Green) |
| :--- | :--- | :--- | :--- | :--- |
| K(White) | J(Black) | $N$ (Pink) | $M$ (Grey) | L(Violet) |

5. Ans. C.

| R(Red) | T(Blue) | Q(Yellow) | P(Orange) | S(Green) |
| :--- | :--- | :--- | :--- | :--- |
| K(White) | J(Black) | N(Pink) | M(Grey) | L(Violet) |

6. Ans. C.
$K>R=L, P>L, R \geq S$
$L=R \geq S$

## Conclusions:

I. $\mathrm{S}<\mathrm{L}$
II. $L=S$

This forms a complementary pair - $S$ is either smaller or equal to $L$. Hence, the correct option is Either conclusion I or conclusion II follows.

7. Ans. A.
$\mathrm{Z}<\mathrm{L}<\mathrm{W}=\mathrm{N}=\mathrm{K} \leq \mathrm{A}$
For conclusion I -
$\mathrm{L}<\mathrm{W}=\mathrm{N}=\mathrm{K} \leq \mathrm{A}-$
$\mathrm{L}<\mathrm{K} \leq \mathrm{A}$
I. $A>L$ (true) - It is clear that $A$ is greater than $L$.

For conclusion II -
II. $Z=A$ (false) $Z=A$ is not confirm, so this is false.

Hence, only conclusion I follow.
8. Ans. A.
$Y>A<N, Y=B<P$
$\mathrm{P}>\mathrm{B}=\mathrm{Y}>\mathrm{A}<\mathrm{N}$
For conclusion I -
$P>B=Y>A$
$\mathrm{P}>\mathrm{Y}>\mathrm{A}$
I. $P>A$ (True) $P$ is greater than $A$ is true.

For conclusion II -
$B=Y>A<N$
II. $N>B$ (false) There is no relation between $N$ and $B$.

Hence, only conclusion I follow.
9. Ans. B.
$X=M<A<S=T<R$

## Conclusions:

For conclusion $\mathrm{I}-\mathrm{M}<\mathrm{A}<\mathrm{S}=\mathrm{T}$ - There is no relation between M and T .
I. $M=T$ (false)

For conclusion II -
$\mathrm{A}<\mathrm{S}=\mathrm{T}<\mathrm{R}$
II. $R>A$ (True) $-R$ is greater than $A$.

Hence, only conclusion II follow.
10. Ans. D.
$A=M>P, N>R, A>T$
I. $T=P$ (false) There is no relation between $T$ and $P$.

For conclusion II -
$A=M>P, N>R$
II. $R<A$ (false) - there is no relation between $R$ and $A$.

Hence, neither conclusion I nor II follows.

11. Ans. C.

Green box is kept at top position.

- Blue box is placed at even number position but not at $8^{\text {th }}$ position. So Blue box can be at $2^{\text {nd }}, 4^{\text {th }}$ and $6^{\text {th }}$ position.
- One box is between Blue and White box. White box is above the Blue box. So Blue box cannot be at $2^{\text {nd }}$ position now either it is at $4^{\text {th }}$ or $6^{\text {th }}$ position.
Case 1: If Blue box at $4^{\text {th }}$ -

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 | Blue |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. One box is above White box so Pink box must be at $7^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box must be at $4^{\text {th }}$ position but Blue box is already so this case gets rejected.

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 |  |
| 4 | Blue |
| 5 |  |
| 6 | Pink |
| 7 |  |
| 8 |  |



## Case 2: If Blue box at 6th ${ }^{\text {th }}$

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Blue |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. Three boxes are above White box so Pink box must be at $5^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box either at $8^{\text {th }}$ or $2^{\text {nd }}$ position.


## Case 2A: If Black box is at $\mathbf{8}^{\text {th }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 | Black |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 |  |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 | Black |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. From this that cannot be possible so this case gets rejected.


Case 2A: If Black box is at $\mathbf{2}^{\text {nd }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | Black |
| 3 |  |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. So Yellow box must be at $7^{\text {th }}$ and Brown box must be at $8^{\text {th }}$ position. Here is the final table:

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 | Yellow |
| 8 | Brown |

12. Ans. D.

3 boxes are kept between Red and Yellow boxes.

- Blue box is placed at even number position but not at $8^{\text {th }}$ position. So Blue box can be at $2^{\text {nd }}, 4^{\text {th }}$ and $6^{\text {th }}$ position.

- One box is between Blue and White box. White box is above the Blue box. So Blue box cannot be at $2^{\text {nd }}$ position now either it is at $4^{\text {th }}$ or $6^{\text {th }}$ position.
Case 1: If Blue box at $4^{\text {th }}$ -

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 | Blue |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. One box is above White box so Pink box must be at $7^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box must be at $4^{\text {th }}$ position but Blue box is already so this case gets rejected.

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 |  |
| 4 | Blue |
| 5 |  |
| 6 | Pink |
| 7 |  |
| 8 |  |

Case 2: If Blue box at $6^{\text {th }}-$

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Blue |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. Three boxes are above White box so Pink box must be at $5^{\text {th }}$ position.

- Two boxes are between Black and Pink boxes. So Black box either at $8^{\text {th }}$ or $2^{\text {nd }}$ position.


## Case 2A: If Black box is at $\mathbf{8}^{\text {th }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 | Black |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 |  |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 | Black |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. From this that cannot be possible so this case gets rejected.
Case 2A: If Black box is at $\mathbf{2}^{\text {nd }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | Black |
| 3 | White |
| 4 | Pink |
| 5 | Blue |
| 6 |  |
| 7 |  |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.


| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. So Yellow box must be at $7^{\text {th }}$ and Brown box must be at $8^{\text {th }}$ position.
Here is the final table:

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 | Yellow |
| 8 | Brown |

## 13. Ans. E.

Brown box is kept at $8^{\text {th }}$ position.

- Blue box is placed at even number position but not at $8^{\text {th }}$ position. So Blue box can be at $2^{\text {nd }}, 4^{\text {th }}$ and $6^{\text {th }}$ position.
- One box is between Blue and White box. White box is above the Blue box. So Blue box cannot be at $2^{\text {nd }}$ position now either it is at $4^{\text {th }}$ or $6^{\text {th }}$ position.
Case 1: If Blue box at $4^{\text {th }}-$

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 | Blue |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |



- The number of boxes above White box is same as the number of boxes below Pink box. One box is above White box so Pink box must be at $7^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box must be at $4^{\text {th }}$ position but Blue box is already so this case gets rejected.

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 | Blue |
| 4 |  |
| 5 | Pink |
| 6 |  |
| 7 |  |
| 8 |  |

Case 2: If Blue box at $\mathbf{6}^{\text {th }}$ -

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Blue |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. Three boxes are above White box so Pink box must be at $5^{\text {th }}$ position. - Two boxes are between Black and Pink boxes. So Black box either at $8^{\text {th }}$ or $2^{\text {nd }}$ position.
Case 2A: If Black box is at $8^{\text {th }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Pink |
| 5 | Blue |
| 6 |  |
| 7 | Black |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 |  |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 | Black |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. From this that cannot be possible so this case gets rejected.


## Case 2A: If Black box is at $\mathbf{2}^{\text {nd }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | Black |
| 3 |  |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. So Yellow box must be at $7^{\text {th }}$ and Brown box must be at $8^{\text {th }}$ position.


## Here is the final table:

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 | Yellow |
| 8 | Brown |

14. Ans. B.

Yellow box is kept at $7^{\text {th }}$ position.

- Blue box is placed at even number position but not at $8^{\text {th }}$ position. So Blue box can be at $2^{\text {nd }}, 4^{\text {th }}$ and $6^{\text {th }}$ position.
- One box is between Blue and White box. White box is above the Blue box.

So Blue box cannot be at $2^{\text {nd }}$ position now either it is at $4^{\text {th }}$ or $6^{\text {th }}$ position.
Case 1: If Blue box at $4^{\text {th }}-$

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 | Blue |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. One box is above White box so Pink box must be at $7^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box must be at $4^{\text {th }}$ position but Blue box is already so this case gets rejected.


| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 |  |
| 4 | Blue |
| 5 |  |
| 6 | Pink |
| 7 |  |
| 8 |  |

Case 2: If Blue box at $6^{\text {th }}-$

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Blue |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. Three boxes are above White box so Pink box must be at $5^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box either at $8^{\text {th }}$ or $2^{\text {nd }}$ position.


## Case 2A: If Black box is at $\mathbf{8}^{\text {th }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Pink |
| 5 | Blue |
| 6 |  |
| 7 | Black |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 |  |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 | Black |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. From this that cannot be possible so this case gets rejected.


## Case 2A: If Black box is at $\mathbf{2}^{\text {nd }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | Black |
| 3 |  |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. So Yellow box must be at $7^{\text {th }}$ and Brown box must be at $8^{\text {th }}$ position.


## Here is the final table:

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 | Yellow |
| 8 | Brown |

15. Ans. D.

Blue box is not kept above the Pink box.

- Blue box is placed at even number position but not at $8^{\text {th }}$ position. So Blue box can be at $2^{\text {nd }}, 4^{\text {th }}$ and $6^{\text {th }}$ position.
- One box is between Blue and White box. White box is above the Blue box.

So Blue box cannot be at $2^{\text {nd }}$ position now either it is at $4^{\text {th }}$ or $6^{\text {th }}$ position.
Case 1: If Blue box at $4^{\text {th }}-$

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 |  |
| 4 | Blue |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. One box is above White box so Pink box must be at $7^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box must be at $4^{\text {th }}$ position but Blue box is already so this case gets rejected.


| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | White |
| 3 |  |
| 4 | Blue |
| 5 |  |
| 6 | Pink |
| 7 |  |
| 8 |  |

Case 2: If Blue box at $6^{\text {th }}-$

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Blue |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

- The number of boxes above White box is same as the number of boxes below Pink box. Three boxes are above White box so Pink box must be at $5^{\text {th }}$ position.
- Two boxes are between Black and Pink boxes. So Black box either at $8^{\text {th }}$ or $2^{\text {nd }}$ position.


## Case 2A: If Black box is at $\mathbf{8}^{\text {th }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 | White |
| 4 | Pink |
| 5 | Blue |
| 6 |  |
| 7 | Black |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 |  |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 | Black |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. From this that cannot be possible so this case gets rejected.


## Case 2A: If Black box is at $\mathbf{2}^{\text {nd }}$ position-

| Box number | Color |
| :--- | :--- |
| 1 |  |
| 2 | Black |
| 3 |  |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- There is one box between green and red box. The green box is placed above red box. Green box must be at $1^{\text {st }}$ and Red box must be at $3^{\text {rd }}$ position.

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 |  |
| 8 |  |

- The number of boxes is between Yellow and Pink box is same as Brown and Blue box. So Yellow box must be at $7^{\text {th }}$ and Brown box must be at $8^{\text {th }}$ position.


## Here is the final table:

| Box number | Color |
| :--- | :--- |
| 1 | Green |
| 2 | Black |
| 3 | Red |
| 4 | White |
| 5 | Pink |
| 6 | Blue |
| 7 | Yellow |
| 8 | Brown |

16. Ans. C.

Using the statements, $C$ sits second to the left of $Y$. $G$ and $C$ are the immediate neighbours. Y sits third to the right of O , who is not sitting immediate to C . We get two scenarios:
Scenario I


## Scenario II

(In)


- Using the statements, C sits second to the left of Y . G and C are the immediate neighbours. $\mathrm{D}, \mathrm{G}$ and L are facing in the same direction. P and C face in the same direction which is opposite to that of G . We get the following combinations:



## Scenario I



Scenario II


- Using the statements $P$, who faces outside sits second to the right of $D$ who is facing inside. $F$ and $G$ are sitting opposite to each other. At least two persons sit between $F$ and $P$. $F$ and $P$ can't be neighbours.
- Thus, Scenario II is not possible. Filling the remaining details in scenario, we get the correct sequence as follows.


17. Ans. C.

Using the statements, C sits second to the left of Y . G and C are the immediate neighbours. Y sits third to the right of O , who is not sitting immediate to C . We get two scenarios:


## Scenario I



## Scenario II

(In)


- Using the statements, C sits second to the left of $Y$. G and C are the immediate neighbours. $D, G$ and $L$ are facing in the same direction. $P$ and $C$ face in the same direction which is opposite to that of G . We get the following combinations:
Scenario I



## Scenario II



- Using the statements $P$, who faces outside sits second to the right of $D$ who is facing inside. $F$ and $G$ are sitting opposite to each other. At least two persons sit between $F$ and $P$. $F$ and $P$ can't be neighbours.
- Thus, Scenario II is not possible. Filling the remaining details in scenario, we get the correct sequence as follows.


18. Ans. C.

Using the statements, C sits second to the left of Y . G and C are the immediate neighbours. Y sits third to the right of O , who is not sitting immediate to C . We get two scenarios:
Scenario I


## Scenario II

(In)


- Using the statements, C sits second to the left of $Y$. G and $C$ are the immediate neighbours. $D, G$ and $L$ are facing in the same direction. $P$ and $C$ face in the same direction which is opposite to that of G . We get the following combinations:
Scenario I


Scenario II


- Using the statements $P$, who faces outside sits second to the right of $D$ who is facing inside. $F$ and $G$ are sitting opposite to each other. At least two persons sit between $F$ and $P$. $F$ and $P$ can't be neighbours.
- Thus, Scenario II is not possible. Filling the remaining details in scenario, we get the correct sequence as follows.



19. Ans. D.

Using the statements, C sits second to the left of Y . G and C are the immediate neighbours. Y sits third to the right of O , who is not sitting immediate to C . We get two scenarios:
Scenario I


## Scenario II

(In) O


- Using the statements, C sits second to the left of Y. G and C are the immediate neighbours. $\mathrm{D}, \mathrm{G}$ and L are facing in the same direction. P and C face in the same direction which is opposite to that of $G$. We get the following combinations:



## Scenario I



Scenario II


- Using the statements $P$, who faces outside sits second to the right of $D$ who is facing inside. $F$ and $G$ are sitting opposite to each other. At least two persons sit between $F$ and $P$. $F$ and $P$ can't be neighbours.
- Thus, Scenario II is not possible. Filling the remaining details in scenario, we get the correct sequence as follows.


20. Ans. C.

Using the statements, $C$ sits second to the left of $Y$. $G$ and $C$ are the immediate neighbours. $Y$ sits third to the right of $O$, who is not sitting immediate to $C$. We get two scenarios:


## Scenario I



## Scenario II

(In)


- Using the statements, C sits second to the left of $Y$. G and C are the immediate neighbours. $D, G$ and $L$ are facing in the same direction. $P$ and $C$ face in the same direction which is opposite to that of G . We get the following combinations:
Scenario I



## Scenario II



- Using the statements $P$, who faces outside sits second to the right of $D$ who is facing inside. $F$ and $G$ are sitting opposite to each other. At least two persons sit between $F$ and $P$. $F$ and $P$ can't be neighbours.
- Thus, Scenario II is not possible. Filling the remaining details in scenario, we get the correct sequence as follows.


21. Ans. A.

The Venn Diagram for the above relation is:


Digits
Numbers
Alphabets
Words

When all the statements are positive, negative statement does not follow.

22. Ans. E.

23. Ans. E.


From the above diagram, Either II or III and I follow. 24. Ans. A.


Some books (common part of paper and magazines) are definitely not magazines.
25. Ans. A.


All book are novels and no novel is magazine. So, no book is magazine follows.


Some newspapers are novels does not follow, as all magazine are newspapers and no magazine is novel.
26. Ans. A.

1. A goes to picnic on Tuesday only with E and he likes Red.
2. D likes Green and he does not go on a picnic on Sunday.
3. The one who likes Black goes to picnic on Wednesday.
4. B and C do not go for a picnic on the same day.
5. F likes Blue but does not go a to picnic on Wednesday.
6. G goes to picnic on the same day as $F$.
7. C likes Pink colour.
8. The one who goes to picnic on Tuesday does not like Brown colour.

| A | Tuesday | Red |
| :--- | :--- | :--- |
| B | Wed | Black |
| C | Sunday | Pink |
| D | Wed | Green |
| E | Tuesday | Orange |
| F | Sunday | Blue |
| G | Sunday | Brown |

B likes Black
27. Ans. B.

1. A goes to picnic on Tuesday only with E and he likes Red.
2. D likes Green and he does not go on a picnic on Sunday.
3. The one who likes Black goes to picnic on Wednesday.
4. B and C do not go for a picnic on the same day.
5. F likes Blue but does not go a to picnic on Wednesday.
6. G goes to picnic on the same day as $F$.
7. C likes Pink colour.
8. The one who goes to picnic on Tuesday does not like Brown colour.

| A | Tuesday | Red |
| :--- | :--- | :--- |
| B | Wed | Black |
| C | Sunday | Pink |
| D | Wed | Green |
| E | Tuesday | Orange |
| F | Sunday | Blue |
| G | Sunday | Brown |

G-Sunday-Brown

28. Ans. B.

1. A goes to picnic on Tuesday only with $E$ and he likes Red.
2. D likes Green and he does not go on a picnic on Sunday.
3. The one who likes Black goes to picnic on Wednesday.
4. $B$ and $C$ do not go for a picnic on the same day.
5. F likes Blue but does not go a to picnic on Wednesday.
6. G goes to picnic on the same day as $F$.
7. C likes Pink colour.
8. The one who goes to picnic on Tuesday does not like Brown colour.

| A | Tuesday | Red |
| :--- | :--- | :--- |
| B | Wed | Black |
| C | Sunday | Pink |
| D | Wed | Green |
| E | Tuesday | Orange |
| F | Sunday | Blue |
| G | Sunday | Brown |

C,F,G
29. Ans. E.

1. A goes to picnic on Tuesday only with $E$ and he likes Red.
2. D likes Green and he does not go on a picnic on Sunday.
3. The one who likes Black goes to picnic on Wednesday.
4. B and C do not go for a picnic on the same day.
5. F likes Blue but does not go a to picnic on Wednesday.
6. G goes to picnic on the same day as $F$.
7. C likes Pink colour.
8. The one who goes to picnic on Tuesday does not like Brown colour.

| A | Tuesday | Red |
| :--- | :--- | :--- |
| B | Wed | Black |
| C | Sunday | Pink |
| D | Wed | Green |
| E | Tuesday | Orange |
| F | Sunday | Blue |
| G | Sunday | Brown |

E likes Orange color.
30. Ans. B.

1. A goes to picnic on Tuesday only with E and he likes Red.
2. D likes Green and he does not go on a picnic on Sunday.
3. The one who likes Black goes to picnic on Wednesday.

4. B and C do not go for a picnic on the same day.
5. F likes Blue but does not go a to picnic on Wednesday.
6. G goes to picnic on the same day as $F$.
7. C likes Pink colour.
8. The one who goes to picnic on Tuesday does not like Brown colour.

| A | Tuesday | Red |
| :--- | :--- | :--- |
| B | Wed | Black |
| C | Sunday | Pink |
| D | Wed | Green |
| E | Tuesday | Orange |
| F | Sunday | Blue |
| G | Sunday | Brown |

B goes to picnic on Wednesday.
31. Ans. B.
as seen from the diagram, $O$ is the niece of $X$.

32. Ans. B.
as seen from the diagram A is the cousin of N .

33. Ans. D.

$P Q=T S=5 m$
So,
$P U=P Q+Q U$
$P U=5 m+3 m=8 m$
34. Ans. C.


Point $R$ is in south west direction with respect to point $T$.
35. Ans. D.


There are four pairs (or,no,nr,,hn)

Hence, option D is the correct answer.


