## IBPS RRB PO 2022

## Top 50 Questions on Blood

 Relation \& Direction Sense
## DOWNLOAD PDF



Direction (1 - 2) : Study the information given below and answer the questions based on it.
In a family of six members, Alex is the father of Dean. Julie is the mother of Tom. Tom is the uncle of Kerry. Wong is the daughter-in-law of Alex. The family has a daughter.

1. How is Kerry related to Julie?
A. Grand daughter
B. Sister
C. Sister-in-law
D. Daughter
E. Mother
2. How is Wong related to Dean?
A. Grand daughter
B. Wife
C. Sister-in-law
D. Daughter
E. Mother

Direction (3-5): Study the following information and answer the question given.
Six members of a family $A, B, C, D, E$ and $F$ are enjoying in a garden; $B$ is the son of $C$ but $C$ is not the mother of $B$. $A$ and $C$ are a married couple. $E$ is the brother of $C$. $D$ is the daughter of $A . F$ is the brother of $B$.
3. How many children does $A$ have?
A. 1
B. 2
C. 3
D. 4
E. None of these
4. Who is the wife of $E$ ?
A. A
B. $F$
C. B
D. Cannot be determined
E. None of these
5. Which of the following is a pair of females?
A. AE
B. BD
C. DF
D. $A D$

## E. None of these

Direction (6 - 10) : Study the information given below and answer the questions based on it.
' $A$ \& $B$ ' means ' $A$ is the brother of $B$ '.
' $A \wedge B$ ' means ' $A$ is the father of $B$ '.
' $A$ \% $B$ ' means ' $A$ is the sister of $B$ '.
' $A$ \# $B$ ' means ' $A$ is the mother $B$ '.
6. In the expression ' $\mathrm{R} \% \mathrm{Q} \# \mathrm{P} \% \mathrm{~S}^{\prime}$, how is $S$ related to R ?
A. Niece
B. Nephew
C. Son
D. Daughter
E. Either Niece or Nephew
7. In the expression 'P\#R\%T\&Q^S', how is $P$ related to $S$ ?
A. Sister
B. Sister-in-law
C. Paternal grandmother
D. Maternal grandmother
E. None of these
8. Which of the following means $M$ is the maternal uncle of $R$ ?
A. M\&K\#R
B. $M \& K \wedge R$
C. $M^{\wedge} K \& R$
D. M\#K\&R
E. None of these
9. Which of the following means $S$ is the aunt of $T$ ?
A. P\&T\#R^S
B. R\#S\%P\&Q^T
C. R\#S\% ${ }^{\wedge}$ T
D. Both B and C
E. None of these
10. In the expression 'P\%Q\#S\&T\%M^N\%O' how is Q related to N?
A. Grandfather
B. Grandmother
C. Uncle
D. Aunt
E. Mother

Direction (11-13): Read the following information carefully to answer the given questions.
' $A$ @ $B$ ' means ' $A$ is the son of $B$ '.
' $A+B^{\prime}$ means ' $B$ is the sister of $A^{\prime}$.
'A \$ B' means ' $A$ is the wife of $B^{\prime}$ '.
' $A$ - $B^{\prime}$ means ' $B$ is the daughter of $A$ '.
' $A$ * $B$ ' means ' $A$ is the son of $B$ '.
11. If ' $R+S-T \$ U * V-W$ ', then $R$ is T's $\qquad$ _.
A. Brother
B. Sister
C. Uncle
D. Aunt
E. Can not be determined
12. If 'R @ T \$ U * V - W', which of the following is definitely true?
A. $W$ is mother of $V$.
B. $V$ has 3 children.
C. $V$ is father-in-law of $T$.
D. $R$ is grandson of $V$.
E. None of these
13. If ' F @ $D-C \$ B * G^{\prime}$, then how is $B$ related to D ?
A. son
B. son-in-law
C. daughter
D. daughter-in-law
E. can not be determined

Direction (14 - 15) : Study the information given below and answer the questions based on it.
' $A$ @ $B$ ' is ' $A$ is the son of $B$ '.
' $A$ \# $B^{\prime}$ is ' $A$ is the daughter of $B$ '.
' $A \$ B^{\prime}$ is ' $A$ is the brother of $B$ '.
' $A \% B^{\prime}$ is ' $A$ is the sister of $B$ '.
' $A$ \& $B$ ' is ' $A$ is the father of $B^{\prime}$.
' $A$ * $B$ ' is ' $A$ is the wife of $B$ '.
If $H$ \% G, B \& F, C \$ B, Z \& C, G @ E, A

* Z, H \# C, F @ D, then

14. Find the relation between H and A ?
A. $A$ is the mother-in-law of H
B. $A$ is the grandmother of H
C. A is the sister-in-law of H
D. $A$ is the mother of H
$E$. $A$ is the father of $H$
15. How many female members are there in the family?
A. 3
B. 4
C. 5
D. 2
E. Cannot be determined

Direction (16 - 20) : Study the following information carefully and answer the questions.
M, N, O, P, Q, R, S and T are eight members of three different families, who belong to three different cities, viz Mumbai, Goa and Pune. They go for vacation in three different places, viz Manali, Shimla and Shillong. Out of total members, there is an equal number of males and females. Each member of a family is going to different places for vacation. In each place, at least one male and one female are going and each family has at least two members.
$M$ belongs to Pune and he is going to visit Shillong. $P$ is wife of $Q$ and they are visiting Manali and Shimla respectively. T is son of $N$, who is wife of $S$, who visits to Shimla and they all belong to Goa. O is daughter of $R$, who is wife of $M$. $O$ is going to visit Shimla. $M$ is not going with $R$.
16. Which of the following group belongs to Mumbai?
A. N,S,T
B. P,Q
C. $M, O, R$
D. $P, S, R$
E. None of these
17. Which of the following group going to visit Manali?
A. $P, Q, N$
B. $\mathrm{P}, \mathrm{O}$
C. $M, N$
D. $Q, R, T$
E. None of these
18. O belongs to which of the following city?
A. Mumbai
B. Goa
C. Pune
D. Can't be determined
E. None of these
19. Which of the following statement is true?
A. P belongs to Goa
B. $S$ is going to visit Shimla
C. R belongs to Mumbai
D. T is going to visit Shillong
E. None of these
20. $N$ is going to visit?
A. Manali
B. Shillong
C. Shimla
D. Can't be determined
E. None of these

Direction (21 - 25) : Study the information given below and answer the questions based on it.
$X \# Y \rightarrow X$ is father of $Y$.
$X @ Y \rightarrow X$ is daughter-in-law of $Y$.
$X \% Y \rightarrow X$ is mother of $Y$.
$X \& Y \rightarrow X$ is brother of $Y$.
$X^{*} Y \rightarrow X$ is sister of $Y$.
$X!Y \rightarrow X$ is husband of $Y$.
I. P \# T
II. V @ R
III. R \% S
IV. T \% W
V. S \& T
VI. U! T
VII. V \% Q
21. How is $P$ related to $R$ ?
A. Father
B. Sister
C. Brother
D. Husband
E. Wife
22. How many male members are there in the family?
A. 3
B. 4
C. 5
D. 6
E. Can't be determined
23. If $A$ is wife of $Q$, then how is $Q$ related to T?
A. Niece
B. Nephew
C. Son
D. Daughter
E. Uncle
24. How is $U$ related to $S$ ?
A. Sister
B. Sister-in-law
C. Brother-in-law
D. Son-in-law
E. Brother
25. How is V related to Q ?
A. Mother
B. Father
C. Uncle
D. Aunt
E. Can't be determined

Direction (26 - 30) : Study the following information carefully and answer the questions given below.
There is an MN axis in such a way that M is in the north direction and N is in the south direction. There is an $A B$ axis in such a way that $A$ is in the west direction and $B$ is in the east direction. MN axis and $A B$ axis intersect at a point $O$ in such a way that MO is $8 \mathrm{~m}, \mathrm{ON}$ is $14 \mathrm{~m}, \mathrm{AO}$ is 12 m and $O B$ is 10 m . Rohit starts from point $B$ and walks for 4 m towards north to reach a point $L$ then takes a left turn and walks for 16 m and stops at a point $C$. Point $E$ is 8 m to the north of point $A$ and point $H$ is 6 m to the east of point $E$. Point $F$ is 6 m to the west of point $N$.
26. How far is point $H$ with respect to point F?
A. 14 m
B. 16 m
C. 22 m
D. 18 m
E. 8 m
27. In which of the following directions is point $F$ with respect to point $B$ ?
A. South-east
B. South-west
C. North-west
D. North-east
E. South
28. What is the distance between point C and point H ?
A. 2 m
B. 4 m
C. 8 m
D. 10 m
E. 12 m
29. In which of the following directions is point $M$ with respect to point $A$ ?
A. South-east
B. South-west
C. North-west
D. North-east
E. South
30. If point $K$ is $14 m$ to the south of point $L$ which is 4 m to the north of point $B$ then what is the distance between point $K$ and point B ?
A. 10 m
B. 8 m
C. 12 m
D. 14 m
E. 6 m

Direction (31-35) : In the following questions, the symbols @, ๑, \$ \% and \# are used with the following meanings illustrated.
'P \$ Q' means 'P is to the north Q '.
' P \# Q' means ' $P$ is to the east of $Q$ '.
'P @ Q' means ' $P$ is to the west of $Q$ '.
'P \% Q' means 'P is to the south of Q'.
In each of the following questions, assuming the given statements to be true, find out the answer of the question.
31. What is the distance between the starting point and end point if the expression is: B \# A, C \$ B, D \# C, E \% $D$ and $A B=5 \mathrm{~km}, B C=10 \mathrm{~km}, C D=9 \mathrm{~km}$ and $D E=10 \mathrm{~km}$ ?
A. 13 km
B. 12 km
C. 14 km
D. 10 km
E. None of these
32. What is the direction of $E$ from the Point C if the expression is: B \# A, C \$ B, $D$ \# C, $E \% D$ and $A B=5 \mathrm{~km}, B C=10 \mathrm{~km}$, $C D=9 \mathrm{~km}$ and $\mathrm{DE}=10 \mathrm{~km}$ ? ?
A. East
B. South
C. West
D. South-East
E. None of these
33. What is the total distance of $A$ to Point G if the expression is: B \# A, C \$ B, D \# C, E \% D, F \# E and, G \$ F and distance $A B=5 \mathrm{~km}, \mathrm{BC}=10 \mathrm{~km}, \mathrm{CD}=9 \mathrm{~km}, \mathrm{DE}=10$ $\mathrm{km}, \mathrm{EF}=7 \mathrm{~km}$ and $\mathrm{GF}=10 \mathrm{~km}$ ?
A. 41 km
B. 51 km
C. 40 km
D. 10 km
E. None of these
34. What is the G's direction now if the expression is: B \# A, C @ B, D \# C, E \% $D, F$ \# $E$ and, $G \$ F$ and distance $A B=5$ $\mathrm{km}, \mathrm{BC}=10 \mathrm{~km}, \mathrm{CD}=9 \mathrm{~km}, \mathrm{DE}=10 \mathrm{~km}$, $\mathrm{EF}=7 \mathrm{~km}$ and $\mathrm{GF}=10 \mathrm{~km}$ ?
A. North
B. West
C. South
D. East
E. None of these
35. What is the shortest distance covered by $G$ to reach $E$ if the expression is: $B$ \# $A, C$ @ B, D \# C, E \% D, F \# E and, G \$ $F$ and distance $A B=5 \mathrm{~km}, B C=10 \mathrm{~km}$, $C D=9 \mathrm{~km}, \mathrm{DE}=10 \mathrm{~km}, \mathrm{EF}=3 \mathrm{~km}$ and GF $=4 \mathrm{~km}$ ?
A. 2 km
B. 6 km
C. 8 km
D. 9 km
E. None of these

Direction (36 - 40) : Study the information given below and answer the questions based on it.
The symbol denotes the useful meaning:
@ - west direction
\& - east direction
\$ - north direction

*     - south direction

The point $T$ is $30 \mathrm{~m} *$ of the point $X$. The point $K$ reaches to point $B$ in $\$$ covering a distance of 10 m . The point $L$ has same distance to point $S$ as between point $X$ and point $E$ in the $\&$. The point $Q$ is 30 m
from the point T in $\&$. The point K is pointing to point $L$ in \& by covering a distance of 24 m . The point $T$ points the same distance to point $B$ as between the point $K$ and point $L$ in @. The distance between the point $X$ and point $E$ is 9 m less than the distance between the point $K$ and point $L$, such that the point $E$ is \& of point $X$. The point $L$ is $*$ of point $T$ and are parallel to line BK.
36. If $J$ is a point between $X$ and $T$ such that it divides the distance of points XJ : TJ in the ratio $2: 1$, then what is the shortest distance to travel from point $B$ to point J?
A. 34 m
B. 26 m
C. 36 m
D. 39 m
E. 37 m
37. If point $Y$ is in between the points $B$ and $K$ such that it divides the distance $B K$ in two equal halves, then what is the direction of point $Y$ from the point $T$ ?
A. North-west
B. North-east
C. South-east
D. South
E. South-west
38. If point $S$ is 15 m west of the point $D$, then what set of points lies in the straight line in the correct sequence?
A. K, L, D, S
B. $L, K, D, S$
C. L, T, D, S
D. K, L, S, D
E. S, D, L, T
39. If point $R$ is the mid-point of the points $S E$, then what is the distance and direction of point $R$ to point $E$ ?
A. 25 m , south
B. 15 m , north
C. 20 m , north
D. 20 m , south
E. 25 m , north
40. If point $A$ is 10 m south of the point $K$, then what is the shortest distance from
point $A$ to point $D$, considering that the point $S$ is 15 m west of point $D$ ?
A. 62 m
B. 64 m
C. 55 m
D. 58 m
E. 54m

Direction (41 - 45) : Study the following data carefully and answer the questions accordingly.
Rohit started walking in the east direction from point C. After walking 30 m , he reached point D. From there, he takes a left turn and walks 20 m to reach point $E$. From $E$, he turns left and walk 14 m and reaches point $F$. Then, he turns left and walks 68 m to reach point G . From point G , he turns right and walks 56 m . Now he reached point H and from there he turns right and walks 80 m to reach point I . From point I, he turns right and walks 64 m to reach point J.
41. I is in which direction with respect to C?
A. West
B. South
C. South East
D. North West
E. Can't be determined
42. If point $L$ is the intersection of points $C, D, G$ and $F$, then which of the following will be true regarding $L$ ?
A. Point $J$ is to the north of $L$
B. $\mathrm{LG}+\mathrm{LF}=\mathrm{IH}-12$
C. $L$ is to the north of $F$
D. All are true
E. None of these
43. What is the total distance travelled by Rohit in West?
A. 76 m
B. 90 m
C. 70 m
D. 64 m
E. Can't be determined
44. Point $E$ is in which direction with respect to point I?
A. East
B. North West
C. South East
D. South West
E. None of these
45. What will be the shortest distance between points C and J ?
A. 36 m
B. 45 m
C. 50 m
D. 40 m
E. None of these

Direction (46 - 47) : 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 $Q$.
46. 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
47. Point $R$ is in which direction with respect to Point T?
A. Northwest
B. Northeast
C. Southwest
D. Southeast
E. None of these

Direction (48 - 49) : Study the information given below and answer the questions based on it.

Point A is 11 metres to the north of point B. Point $C$ is 11 metres to the east of point
B. Point $D$ is 5 metres to the north of point
C. Point $E$ is 7 metres to the west of the point $D$. Point $F$ is 9 metres to the north of point $E$. Point $G$ is 4 metres to the west of point $F$.
48. Point $D$ is in which direction with respect to point $F$ ?
A. North-East
B. South-East
C. South
D. North-West
E. East
49. Which of the following three points lie in a straight line?
A. A, E and D
B. $F, E$ and $C$
C. G, $F$ and $B$
D. G, A and B
E. None of these
50. Pratiksha started from her hostel towards west. After walking a distance of 25 m , she turned to the right and walked 10 m . She then again turned to the right and walked 15 m . After this she turn right at $135^{\circ}$ and to cover 30 m . In which direction she is going?
A. West
B. South
C. South-West
D. South-East
E. None of these

## \# \# \#ANSWERS\# \# \#

1. Ans. A.

Kerry is granddaughter of Julie.
Solution of Puzzle:-

2. Ans. B.

Wong is wife of Dean.
Solution of Puzzle:-

3. Ans. C.

A has three childrern - F, B \& D

4. Ans. D.

Can't be determined.

5. Ans. D.

Pairs of females are - A \& D

6. Ans. E.

We can draw the family diagram as follows:

| Symbol | meaning | Symbol | Meaning |
| :--- | :--- | :--- | :--- |
| - | Female | $\&$ | Brother |
| + | male | $\wedge$ | father |
|  |  | $\%$ | sister |
|  |  |  | $\#$ |
|  |  |  | mother |

R\%Q\#P\%S


From the above diagram it is clear that $S$ is either niece or nephew of $R$.
7. Ans. C.

We can draw the family diagram as follows:

| Symbol | meaning | Symbol | Meaning |
| :---: | :---: | :---: | :---: |
| - | Female | \& | Brother |
| + | male | $\wedge$ | father |
|  |  | \% | sister |
|  |  | \# | mother |

P\#R\%T\&Q^S

thus from the above family tree it is clear that $P$ is the paternal grandmother of $S$
8. Ans. A.

We can draw the family diagram as follows:

| Symbol | meaning | Symbol | Meaning |
| :--- | :--- | :--- | :--- |
| - | Female | $\&$ | Brother |
| + | male | $\wedge$ | father |
| - | - | $\%$ | sister |
| - | - |  | $\#$ |
|  | \# | mother |  |

Now we will analyze all the options one by one:
A) $M \% K \# R$

from the above family tree $M$ is the maternal uncle of $R$
B) $M \& K \wedge R$

from the above family tree $M$ is the paternal uncle of $R$
C) $M \wedge K \& R$

from the above family tree $M$ is the father of R
D) $M \# K \& R$

from the above family tree $M$ is the mother of R
9. Ans. D.

We can draw the family diagram as follows:

| Symbol | meaning | Symbol | Meaning |
| :--- | :--- | :--- | :--- |
| - | Female | $\&$ | Brother |
| + | male | $\wedge$ | father |
| $-\quad-\quad-\quad-\quad-\quad-\quad-\quad-\quad$ | $\%$ | sister |  |
|  | $\#$ | mother |  |

A) $P \& Q \# R \wedge S$


From the above family tree $S$ is the grandchildren of $T$.
B) $R \# S \% P \& Q \# T$


From the above family tree $S$ is the aunt of $T$.
C) $R \# S \% P^{\wedge} T$


From the above family tree $S$ is the aunt of T
10. Ans. B.

We can draw the family diagram as follows:

| Symbol | meaning | Symbol | Meaning |
| :--- | :--- | :--- | :--- |
| - | Female | $\&$ | Brother |
| + | male | $\wedge$ | father |
| - |  | $\%$ | sister |
|  |  |  | $\#$ |
|  |  |  |  |

'P\%Q\#S\&T\%M^N\%O'


From the above diagram it is clear that Q is the grandmother of N
11. Ans. E.

Symbols used are as follows:

| Symbol | Relationship |
| :---: | :--- |
| $\longleftrightarrow$ | Represents Couple |
| $\longleftrightarrow$ | Represents Mother/Father <br> to Son/ Daughter |
| - | Represents Siblings |
| $(+)$ | Represents Male |
| $(-)$ | Represents Female |

7) Option E. is the correct answer as R is either uncle or aunt of $T$.
In the given expression: ' $\mathrm{R}+\mathrm{S}-\mathrm{T} \$ \mathrm{U} *$ V - W'
$R+S: S$ is sister of $R$.
$S-T$ : $T$ is daughter of $S$.
$T \$ U$ : $T$ is wife of $U$.
$\mathrm{U} * \mathrm{~V}: \mathrm{U}$ is son of V .
$\mathrm{V}-\mathrm{W}: \mathrm{W}$ is daughter of V .

12. Ans. D.

Symbols used are as follows:

| Symbol | Relationship |
| :---: | :--- |
| $\longleftrightarrow$ | Represents Couple |
| $\downarrow$ | Represents Mother/Father <br> to Son/ Daughter |
| - | Represents Siblings |
| $(+)$ | Represents Male |
| $(-)$ | Represents Female |

8) Option D. is the correct answer as $R$ is grandson of $V$.
In the given expression: `R @ T \$ U * V W'
$R$ @ $T: R$ is son of $T$.
$T \$ U: T$ is wife of $U$.
$\mathrm{U} * \mathrm{~V}: \mathrm{U}$ is son of V .
$\mathrm{V}-\mathrm{W}$ : W is daughter of V .

$$
\mathrm{V}(+/-)
$$


13. Ans. B.

Symbols used are as follows:

| Symbol | Relationship |
| ---: | :--- |
|  | Represents Couple |
|  | Represents Mother/Father to Son/ Daughter |
|  | Represents Male |
| $(-)$ | Represents Female |

9) Option $B$. is the correct answer as $B$ is son-in-law of $D$.
In the given expression: ${ }^{\prime} \mathrm{F} @ \mathrm{D}-\mathrm{C} \$ \mathrm{~B}$ * G'
$F @ D: F$ is son of $D$.
$D-C: C$ is daughter of $D$.
$C$ \$ $B$ : C is wife of $B$.
$B * G: B$ is son of $G$.

14. Ans. B.

A is the grandmother of H
H $\qquad$ ( +
15. Ans. B.

16. Ans. B.
$P$ and $Q$ belongs to Mumbai
I. $\mathrm{P}(-) \longleftrightarrow \mathrm{Q}(+)$
II. $\mathrm{N}_{\mathrm{T}(+)}(-) \longleftrightarrow \mathrm{S}(+)$


| M | Pune | Shillong |
| :--- | :--- | :--- |
| N | Goa | Shillong |
| O | Pune | Shimla |
| P | Mumbai | Manali |
| Q | Mumbai | Shimla |
| R | Pune | Manali |
| S | Goa | Shimla |
| T | Goa | Manali |

17. Ans. E.

P, R \& T group going to visit Manali.
I. $\mathbf{P}(-) \longleftrightarrow \mathbf{Q}(+)$


| M | Pune | Shillong |
| :--- | :--- | :--- |
| $\mathbf{N}$ | Goa | Shillong |
| $\mathbf{O}$ | Pune | Shimla |
| P | Mumbai | Manali |
| Q | Mumbai | Shimla |
| R | Pune | Manali |
| S | Goa | Shimla |
| T | Goa | Manali |

18. Ans. C.

O belongs to Pune
I. $\mathbf{P}(-) \longleftrightarrow \mathbf{Q ( + )}$
II. $\mathrm{N}_{\mathrm{T}(+)}^{(-)} \longleftrightarrow \mathrm{S}(+)$
$\underset{\mathrm{O}(-)}{\text { III. } \mathrm{R}(-)} \longleftrightarrow \mathrm{M}(+)$

| M | Pune | Shillong |
| :--- | :--- | :--- |
| N | Goa | Shillong |
| $\mathbf{0}$ | Pune | Shimla |
| P | Mumbai | Manali |
| Q | Mumbai | Shimla |
| R | Pune | Manali |
| S | Goa | Shimla |
| T | Goa | Manali |

19. Ans. B.

S is going to visit Shimla
I. $\mathbf{P}(-) \longleftrightarrow \mathbf{Q}(+)$
II. $\underset{\mathrm{T}(+)}{\mathrm{N}(-)} \longleftrightarrow \mathrm{S}(+)$
III. $\mathrm{R}(-) \underset{\mathrm{O}(-)}{ } \longleftrightarrow \mathrm{M}(+)$

| M | Pune | Shillong |
| :--- | :--- | :--- |
| N | Goa | Shillong |
| $\mathbf{0}$ | Pune | Shimla |
| P | Mumbai | Manali |
| Q | Mumbai | Shimla |
| R | Pune | Manali |
| S | Goa | Shimla |
| T | Goa | Manali |

20. Ans. B.

N is going to visit Shillong
I. $\mathbf{P}(-) \longleftrightarrow \mathbf{Q ( + )}$
II. $\mathrm{N}_{\mathrm{T}(+)}(-) \longleftrightarrow \mathrm{S}(+)$
III. $\mathrm{R}(-) \longleftrightarrow \mathrm{M}(+)$

| M | Pune | Shillong |
| :--- | :--- | :--- |
| N | Goa | Shillong |
| O | Pune | Shimla |
| P | Mumbai | Manali |
| Q | Mumbai | Shimla |
| R | Pune | Manali |
| S | Goa | Shimla |
| T | Goa | Manali |

21. Ans. D.
$P$ is husband of $R$.


Hence, option D.
22. Ans. E.

We don't know the gender of $W$ and $Q$.
Family Tree:


Hence, option E .
23. Ans. B.

If $A$ is wife of $Q$ then $Q$ is a male then $Q$ is nephew of $T$.

## Family Tree:



Hence, option B.
24. Ans. C.

U is brother-in-law of S .

## Family Tree:



Hence, option C.
25. Ans. A.
$V$ is mother of Q .
Family Tree:


Hence, option A.
26. Ans. C.

Point $H$ is $22 m$ far away from point $F$.
Hence, option C.

27. Ans. B

Point $F$ is south-west of point $B$.
Hence, option C.

28. Ans. B.

The distance between point C and point H is 4 m .
Hence, option B.

29. Ans. D.

Point $M$ is north-east of point $A$.
Hence, option D.

30. Ans. A.

The distance between point K and point N is 10 m .
Hence, option A.

31. Ans. C.

B \# A, C \$ B, D \# C, E \% D
After Putting the meaning of symbols in the expression and we get :
$B$ is east of $A, C$ is west of $B, D$ is east $C$, $E$ is south of $D$
Diagram of directions is as follows:


So, distance required between $\mathrm{AE}=$ $A B+B E=5+9=14 \mathrm{~km}$. So answer is 3).
32. Ans. D.

B \# A, C @ B, D \# C, E \% D
After Putting the meaning of symbols in the expression and we get :
$B$ is east of $A, C$ is west of $B, D$ is east $C$, $E$ is south of $D$
Diagram of directions is as follows:


So, $E$ is South East of C. So answer is 4). 33. Ans. B.

B \# A, C @ B, D \# C, E \% D and
After Putting the meaning of symbols in the expression and we get :
$B$ is east of $A, C$ is west of $B, D$ is east $C$, $E$ is south of $D, F$ is east of $E$ and $G$ is North of $F$.
Diagram of directions is as follows:


So, Total distance required $=51 \mathrm{~km}$. So answer is 2).
34. Ans. A.

B \# A, C @ B, D \# C, E \% D and
After Putting the meaning of symbols in the expression and we get :
$B$ is east of $A, C$ is west of $B, D$ is east $C$, $E$ is south of $D, F$ is east of $E$ and $G$ is North of F.
Diagram of directions is as follows:


So, facing north direction now. So answer is 1).
35. Ans. E.

B \# A, C @ B, D \# C, E \% D and After Putting the meaning of symbols in the expression and we get :
$B$ is east of $A, C$ is west of $B, D$ is east $C$, $E$ is south of $D, F$ is east of $E$ and $G$ is North of $F$.
Diagram of directions is as follows:

$G F^{2}+E F^{2}=G E^{2}$
$4^{2}+9^{2}=G E^{2}$
$\mathrm{GE}=5 \mathrm{~km}$
So, the shortest distance $=5 \mathrm{~km}$. So answer is 5).
36. Ans. B.
by given sol figure, it is clear that the shortest distance from point $B$ to point J is 26 m .

37. Ans. E.
by given sol figure, it is clear that the point $Y$ is south-west of point $T$

38. Ans. D.
by given sol figure, it is clear that the points K, L, S, D lies in the straight line in the correct sequence.

39. Ans. C.
by given sol figure, it is clear that the point $E$ is 20 m , north of the point $R$

40. Ans. C.
by given sol figure, it is clear that the shortest distance between the point $A$ and point $D$ is 55 m .

$\left((10)^{\wedge} 2+(54)^{\wedge} 2\right)=(3016)^{\wedge} 1 / 2=$ 55(approx.)
41. Ans. D.


Therefore, option $D$ is correct.
42. Ans. B.


Therefore, option B is the correct answer.
43. Ans. C.


Required distance $-14+56=70 \mathrm{~m}$ Therefore, option $C$ is the correct answer.
44. Ans. C.


Therefore, option C is the correct answer. 45. Ans. D.


Required distance $-\sqrt{ }(24)^{2}+(32)^{2}=$ $\sqrt{ } 1600=40 \mathrm{~m}$
Therefore, option $D$ is the correct answer.
46. Ans. D.

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


Point $R$ is in south west direction with respect to point $T$.
48. Ans. B.


Clearly, point $D$ is in the S-E direction of point $F$.
Hence, option B is correct.
49. Ans. D.


Clearly, points $G, A$ and $B$ lie in the straight line (vertically).
Hence, option D is correct.
50. Ans. C.


She is finally going into South west direction.

