

SBI PO Preliminary -2021. SBPP-2021-100019

HINTS & SOLUTIONS

ANSWER KEY

1.(5)	21.(3)	41.(3)	61.(2)	81.(3)
2.(4)	22.(4)	42.(3)	62.(2)	82.(4)
3.(5)	23.(5)	43.(2)	63.(4)	83.(3)
4.(4)	24.(2)	44.(1)	64.(5)	84.(4)
5.(4)	25.(4)	45.(3)	65.(1)	85.(5)
6.(2)	26.(3)	46.(2)	66.(1)	86.(4)
7.(3)	27.(3)	47.(3)	67.(2)	87.(4)
8.(4)	28.(2)	48.(1)	68.(3)	88.(3)
9.(4)	29.(2)	49.(1)	69.(4)	89.(1)
10.(3)	30.(1)	50.(5)	70.(2)	90.(5)
11.(1)	31.(2)	51.(3)	71.(1)	91.(1)
12.(2)	32.(1)	52.(3)	72.(2)	92.(5)
13.(5)	33.(1)	53.(4)	73.(1)	93.(5)
14.(2)	34.(4)	54.(3)	74.(3)	94.(5)
15.(2)	35.(3)	55.(2)	75.(4)	95.(3)
16.(5)	36.(4)	56.(1)	76.(4)	96.(1)
17.(4)	37.(5)	57.(1)	77.(2)	97.(1)
18.(2)	38.(5)	58.(5)	78.(5)	98.(1)
19.(1)	39.(2)	59.(1)	79.(4)	99.(3)
20.(5)	40.(3)	60.(2)	80.(3)	100.(3)

HINTS & SOLUTIONS

- 1.(5) All the given sentences are correct in context of the passage. "The Guardian drones, manufactured by General Atomics, will complement India's maritime surveillance aircraft at sea in intelligence, surveillance and reconnaissance", "UAVs have the potential to play a role in enabling the Indian military not only in fighting wars but also in intelligence, reconnaissance and surveillance, and deterring cross-border terrorist attacks.", "The additional capability will free up the navy's Boeing P-81s for anti-submarine warfare (ASW)." "The use of unmanned systems such as drones removes potential political costs".
- 2.(4) Sentences (2) and (3) are correct while sentence (1) is about Nishant drone. Other two are the features of The Israel Aerospace Industries' (IAI's) Heron TPs.
- 3.(5) Refer the sixth and seventh paragraphs of the passage, "Modern air defences.....target them". It can be easily inferred that author talks about the existing concern towards the air securities of countries which are vulnerable to attacks. All three statements are related to the facts given in the passage indicating the expression what author means to say. Hence (5) is the correct choice.
- 4.(4) According to the passage, statements (II) and (III) are correct. Statement (I) does not go in agreement with the passage as it tells about UAV's role in economy which is irrelevant in context of it.
- 5.(4) The theme of the passage revolves around the import of armed drones by India from USA and Israel. Hence the title 'India's quest for Armed drones' is an appropriate title.
- 6.(2) **Ludicrous** means foolish or unreasonable. Hence it has same meaning as **preposterous**. **Veracity** means unwillingness to tell lies.
Winsome means charming in a childlike or naive way.
Vociferous means conspicuously and offensively loud.
Detract means divert or reduce.
- 7.(3) **Doctrines** means belief. Hence it has same meaning as **dogma**.
Devout means holy, given to religious duties, solemn.
Demure means quiet, modest.
Feral means savage, wild.
Furtive means secretive.
- 8.(4) **Nascent** means just coming into existence and beginning to display signs of future potential. Hence it has opposite meaning to **wither**.
Fractious means troublesome or irritable.
Enmity means ill will, hatred.
Impudent means casually rude.
Inhibit means restrain.
- 9.(4) Replace 'start' by 'started' as part (c) of the sentence uses 'could have'. "Have/has/had" is followed by V3 form of the verbs. Hence "could have taken..... and started..." is the correct usage.
- 10.(3) Use 'when' in place of 'that' as "Scarcely/Hardly" is followed by 'when' or 'before' in a correct grammatical usage.
- 11.(1) Replace 'or' by 'if' as "seldom if ever" and 'seldom' or 'never' are the correct usage.
- 12.(2) Use 'by' before 'whom' to make the sentence grammatically correct. Look at these sentences;
I know the man **by whom he was helped**. [Passive]
I know the man **who helped him**. [Active]
- 13.(5) The given sentence is grammatically correct.
- 14.(2) Replace 'has' by 'had' as part (a) of the sentence denotes the past event while part (b) signifies past of the past event for which **Past Perfect Tenses** should be used. e.g. **I did not know** [Simple Past] **when he had come** [Past Perfect Tense].
- 15.(2) Replace 'each and every' by 'each' as 'each' is used for 'two or more than two' while 'every' or 'each and every' is always used for 'more than two'. e.g. There were **two boys** and **each** boy had a red pen. There were **ten students** in the class room and **each/every/each and every** student had a red pen.
- 16.(5) There is no error in the given statement.
- 17.(4) Replace 'sweetly' by 'sweet' as "taste, feel, seem, appear, look, smell, remain, etc." are 'Copula Verbs' or **Linking Verbs** which take **Adjective** and not Adverb. e.g. She **tastes sweet** [Adjective].
A rose **smells sweet** [Adjective].
She **looks beautiful** [Adjective].
She **looks suspiciously** [Adverb] at him.

- 18.(2)
20.(5)
22.(4)
24.(2)
26-30.
26.(3)
28.(2)
31.(2)

- 19.(1)
21.(3)
23.(5)
25.(4)

The correct sequence of sentences is **FEBCAD**

	2016	2017
Arts	52,800	57,200
Commerce	96,800	1,24,800
Science	1,05,600	1,14,400
Agriculture	30,800	26,000
Pharmacy	26,400	46,800
Medicine	48,400	52,000
Engineering	79,200	98,800

Clearly in Agriculture, there was decrease in number of students from 2016 to 2017.

- 32.(1) Ratio = 26400 : 46800 = 22 : 39.
33.(1) % increase in Engineering students from 2016 to 2017
= $\frac{98800 - 79200}{79200} \times 100 \approx 25\%$

- 34.(4) Arts & Commerce together in 2016
= 52800 + 96800 = 1,49,600
Arts & commerce together in 2017
= 57,200 + 1,24,800 = 1,82,000
Desired % = $\frac{1,49,600}{1,82,000} \times 100 \approx 82\%$

- 35.(3) Clearly in commerce % increase was maximum
36.(4) Total number of member enrolled in 2017
= 160% of (150 + 70)

$$\frac{220 \times 160}{100} = 352.$$

- 37.(5) Req'd ratio = $\frac{\text{No. of members in Project A and B in 2013}}{\text{No. of members in Project A and B in 2016}}$
= $\frac{60 + 210}{70 + 150} = \frac{270}{220} = \frac{27}{22} = 27 : 22$

- 38.(5) Req'd. %
= $\frac{\text{No. of members in Project A in 2013}}{\text{No. of members in Project B in 2016}} \times 100$
= $\frac{60}{150} \times 100 = 40\%$

- 39.(2) Total number of members enrolled in Project A from 2013 to 2016 = 60 + 140 + 200 + 70 = 470
Total number of members enrolled in Project B in 2015 and 2016 together = 240 + 150 = 390
 \therefore Difference = 470 - 390 = 80

Therefore required % more = $\frac{80}{390} \times 100 = 20.51\%$ more

- 40.(3) Total number of members enrolled in Project B in 2015 and 2016 together = 240 + 150 = 390
Total number of members enrolled in Project A in 2012 and 2016 = 170 + 70 = 240
 \therefore Difference = 390 - 240 = 150

Therefore required % = $\frac{150}{240} \times 100 = 62.5\%$.

- 41.(3) I. $\frac{3}{\sqrt{x}} + \frac{4}{\sqrt{x}} = \sqrt{x}$ | II. $y^2 = \frac{7^{\frac{5}{2}}}{\sqrt{y}}$
or, $\frac{3+4}{\sqrt{x}} = \sqrt{x}$ | or, $y^2 \times \sqrt{y} = 7^{\frac{5}{2}}$
or, $7 = x$ | or, $y^2 \times y^{\frac{1}{2}} = 7^{\frac{5}{2}}$
or, $x = 7$ | or, $y^{\frac{5}{2}} = 7^{\frac{5}{2}}$
 $\therefore y = 7$

Thus $x = y$

- 42.(3) I. $x^2 - 264 = 361$ | II. $y^3 - 878 = 453$
or, $x^2 = 361 + 264$ | or, $y^3 = 483 + 878$
 $\therefore x^2 = 625$ | or, $y^3 = 1331$
 $\therefore x = \sqrt{625} = \pm 25$ | $\therefore y = \sqrt[3]{1331} = 11$

Hence no relation can be established.

- 43.(2) I. $9x + 8y = 64$ (i)
II. $3x + 4y = 28$ (ii)
From, (i) - (ii) $\times 3$, we get
 $9x + 8y = 64$
 $9x + 12y = 84$

 $-4y = -20$

$$\therefore y = 5$$

Putting the value of y in equation (i), we get

$$9x + 8 \times 5 = 64$$

$$\text{or, } 9x = 64 - 40$$

$$\therefore x = \frac{24}{9}$$

Hence $x < y$

- 44.(1) I. $x^2 - 48x + 575 = 0$ | II. $46y^2 - 35y - 11 = 0$
or, $x^2 - 23x - 25x + 575 = 0$ | or, $46y^2 - 46y + 11y - 11 = 0$
or, $x(x - 23) - 25(x - 23) = 0$ | or, $46(y - 1) + 11(y - 1) = 0$
or, $(x - 25)(x - 23) = 0$ | or, $(46y + 11)(y - 1) = 0$
 $\therefore x = 25, 23$ | $\therefore y = -\frac{11}{46}, 1$

Hence $x > y$

- 45.(3) I. $15x^2 - 11x - 12 = 0$ | II. $20y^2 - 49y + 30 = 0$
or, $15x^2 - 20x + 9x - 12 = 0$ | or, $20y^2 - 25y - 24y + 30 = 0$
or, $5x(3x - 4) + 3(3x - 4) = 0$ | or, $5y(4y - 5) - 6(4y - 5) = 0$
or, $(5x + 3)(3x - 4) = 0$ | or, $(4y - 5)(5y - 6) = 0$
 $\therefore x = -\frac{3}{5}, \frac{4}{3}$ | $\therefore y = \frac{5}{4}, \frac{6}{5}$

Hence, no relation can be established.

	1st class	:	2nd class
Fare	3	:	1
Passenger	$\times 1$:	$\times 50$

$$\text{Total Fare} = 3 + 50 = 53x$$

$$\Rightarrow 53x = 1325$$

$$\therefore x = \frac{1325}{53} = 25$$

\therefore Amount collected from IInd class = $50x$

$$\Rightarrow 25 \times 50 = \text{Rs. } 1250$$

Investment ratio of A and B

$$= 52000 \times 12 : 39000 \times 8$$

$$= 2 : 1$$

Let profit be 100 unit

Now 25% profit given to B as commission

So, $(100 - 25) = 75$ unit divided between

A & B in ratio 2 : 1

$$\therefore \text{B get total profit} = 25 + 75 \times \frac{1}{3} = 50 \text{ unit}$$

$$\Rightarrow 50 \text{ unit} = 20,000$$

$$\Rightarrow 1 \text{ unit} = 400$$

$$\therefore \text{A's share} = 75 \times \frac{2}{3} = 50 \text{ unit}$$

$$\Rightarrow 50 \times 400 = 20,000$$

- 48.(1) Let the first and second part of a number is a and b respectively.

According to the question,

Case: (i)

$$\frac{80}{100}a - \frac{60}{100}b = 3$$

$$\Rightarrow 8a - 6b = 30 \dots (i)$$

Case: (ii)

$$\frac{80}{100}b - \frac{90}{100}a = 6$$

$$8b - 9a = 60 \dots (ii)$$

From eqn. (i) & (ii)

$$a = 60, b = 75$$

Hence required number

$$= (a + b) = (60 + 75) = 135$$

49.(1) According to the question,

Let the number of students = x

$$\therefore 60x - 3000 = 45x$$

$$\therefore x = 200$$

50.(5) Let S.P. of 1st book = n

Then

$$\text{S.P. of total 11 books} = n + n - 1 +$$

$$\dots + n - 5 + \dots + n - 10 = 11n - 55$$

$$\Rightarrow \text{S.P. of 6th books} = \text{C.P. of 1 book} = n - 5$$

$$\text{C.P. of all book} = (n - 5) \times 11$$

$$= 11n - 55$$

$$\Rightarrow \text{S.P.} = \text{C.P.}$$

\therefore No gain no loss

51.(3) SI of 3 years = Rs. 3000

$$\text{SI for 2 years} = \text{Rs. } \frac{3000}{3} \times 2 = \text{Rs. } 2000$$

$$\text{SI for 2 years} = \text{Rs. } 2000$$

$$\text{CI for 2 years} = \text{Rs. } 2050$$

$$\text{difference} = (2050 - 2000) = \text{Rs. } 50$$

$$\text{Required rate\%} = \frac{50}{1000} \times 100 = 5\%$$

According to the question,

$$5\% \text{ of sum} = 1000$$

$$\text{sum} = \frac{1000}{5} \times 100 = \text{Rs. } 20,000$$

52.(3) Let CP of the article = $100x$

According to question,

$$\text{SP} = 95x$$

Again,

$$\text{New CP} = 90x$$

Then,

$$\text{New SP} = 90x \times \frac{130}{100} = 117x$$

Difference between new SP and actual SP

$$\Rightarrow 117x - 95x = 33$$

$$\Rightarrow 22x = 33$$

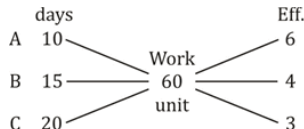
$$\therefore x = \frac{3}{2}$$

\therefore CP of article = $100x$

$$= 100 \times \frac{3}{2}$$

$$= 150$$

53.(4)



$$\text{A and C work for two days} = (6 + 3) \times 2 = 18 \text{ units}$$

$$\text{Work left} = (60 - 18) = 42 \text{ units}$$

Now A is replaced by B

$$(\text{B} + \text{C}) \text{ one day work} = 4 + 3$$

(B + C) complete remaining work in —

$$\frac{\text{total work}}{\text{Eff.}} = \frac{42}{7} = 6 \text{ days.}$$

$$\text{Total days} = 6 + 2 = 8 \text{ days}$$

54.(3)

Let the speed of Ravi = x km/hr

then Ajay's speed will be $(x + 4)$ km/hr.

Total distance, covered by Ajay = $60 + 12 = 72$ km

Total distance, covered by Ravi = $60 - 12 = 48$ km

According to question,

$$\Rightarrow \frac{72}{(x + 4)} = \frac{48}{x}$$

$$\Rightarrow 72x = 48x + 192$$

$$\Rightarrow 24x = 192$$

$$\Rightarrow x = 8 \text{ km/hr.}$$

\therefore Ravi's speed = 8 km/hr.

55.(2)

Total no. of handshakes among the group of 42 men

$$\Rightarrow {}^{42}C_2 = \frac{42!}{2!(42-2)!} = \frac{42!}{2!40!}$$

$$= \frac{42 \times 41 \times 40!}{2 \times 1 \times 40!}$$

$$= 21 \times 41$$

$$= 861$$

Total no. of handshakes among the group of 16 women

$$\Rightarrow {}^{16}C_2 = \frac{16!}{2!(16-2)!} = \frac{16!}{2!14!}$$

$$= \frac{16 \times 15 \times 14!}{2 \times 1 \times 14!}$$

$$= 8 \times 15 = 120$$

\therefore Maximum no. of handshakes = $861 + 120$

$$= 981.$$

$$\times 0.5, \times 1, \times 1.5, \times 2, \times 2.5 \dots \dots \dots$$

$$\text{Therefore } 78 \times 2.5 = 195.$$

$$56.(1) \text{ Pattern is } 1^3 - 1, 2^3 + 2, 3^3 - 3, 4^3 + 4, 5^3 - 5, \dots \dots \dots$$

$$\text{So, } 6^3 + 6 = 222.$$

$$57.(1) \text{ Series is } +2^2, +4^2, +6^2, +8^2, +10^2.$$

$$\text{So, } 152 + 100 = 252.$$

$$58.(5) \text{ Series is } \times 1 + 1^2, \times 2 + 2^2, \times 3 + 3^2, \times 4 + 4^2.$$

$$\text{So, } 12 \times 3 + 9 = 45.$$

$$59.(1) (\times 3 + 1.5), (\times 6 + 3), (\times 12 + 6), (\times 24 + 12)$$

$$\text{So, } 264 \times 12 + 6 = 3174.$$

$$60.(2) ? = \left(\frac{127}{100} \times 1540\right) + \left(\frac{5.5}{100} \times 150\right) + \left(\frac{104}{100} \times 7\right)$$

$$= 1955.8 + 8.25 + 7.28$$

$$= 1971.33 \approx 1970$$

$$61.(2) ? = \sqrt{361} \times 19 + 1083 \div 57 \approx 380.$$

$$62.(2) (95 \times 13) + (6 \times 15) = 53 \times \sqrt{?}$$

$$\Rightarrow 1235 + 90 = 1325 = 53 \times \sqrt{?}$$

$$\Rightarrow 53 \times 25 = 53 \times \sqrt{?}$$

$$\Rightarrow ? = 625$$

$$63.(4) (333\% \text{ of } 856) \div 49.95$$

$$= 2850.48 \div 49.95$$

$$\approx 2850 \div 50 = 57$$

$$64.(5) \frac{43 \times 45 \times 1680}{100 \times 301} = 108.$$

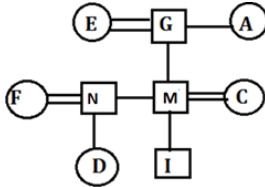
$$65.(1)$$

66-71. To solve this puzzle first we have to try to make family tree from the given conditions. It is given that, three are married couples. There are four male members in a family. Only 3 generations in a family. M and N have only one child.

E's husband's sister has two nephews. E's grandson's mother's husband is M. There is a line in the puzzle that, C sits at 120° anticlockwise direction of M's brother, that means M has a brother and D is niece of M now it is clear that N is father of D.

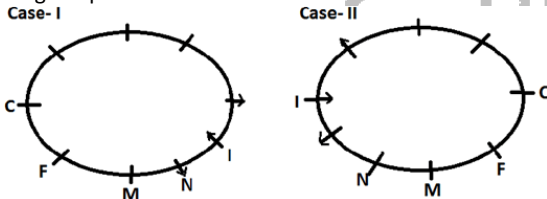
There is one generation gap between A's brother and N's wife, from this condition A has remaining only one position, that A is sister-in-law of E.

I is son of C from this condition there is only one possibility that I is son of M and C is wife of M. F is female, there is only one position of female that is N's wife. Hence F is wife of N. G's position will be fixed.



From the conditions, N sits at 30° to M that means N can sit either left of M or right of M. There is an angle of 90° between C and N's brother (M), hence C can sit either left or right of M.

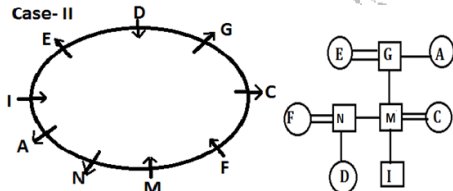
I faces to the centre and C sits 4th left of M's son (I). F is an immediate neighbor M. Both the immediate neighbors of I face outside to the centre. From these conditions we will get 2 possible cases.



C sits at 120° anticlockwise direction of M's brother (N), from this condition case-I will be cancelled out. Only case-II will be continued with the rests conditions.

Grandmother of D (E), sits opposite to mother of D (F). G sits 3rd right of one, who is 3rd right of D's brother (I), Hence M faces to the centre. E's husband's sister (A), who sits 3rd place away from F. So there are 2 possibilities in case-II, Either A sits just near to N or just near to E. But from the given condition, "D faces to the centre", the possibility of A sits just near to E will be eliminated.

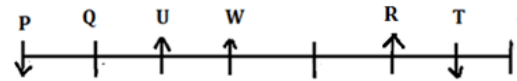
F faces to the centre. From these conditions we will get final answer.



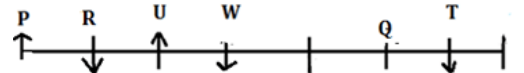
- 66.(1)
- 67.(2)
- 68.(3)
- 69.(4)
- 70.(2)
- 71.(1)
- 72-76.

From the given conditions, Q sits 2nd to the left of the one who is 3rd to the right of T, Hence Q sits either 5th to the right of T or immediate to the right of T. T is not facing towards the north. P does not face the same direction as W faces. W is an immediate neighbor of U. Only one person sits to the left of the T. P, who sits one of the extreme ends of the row, sits 2nd left of U. Q sits 4th to the left of R. Only one person sits to the left of the T.

Case-I

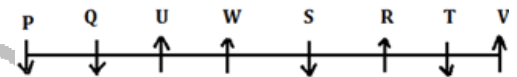


Case-II



From the given condition, U, who faces the same direction as R faces. Hence Case-II will be eliminated. Case-I is continued with the remaining conditions, V and Q face opposite direction. S sits 2nd right of U. S faces towards south direction. S sits 2nd right of U. The one, who sits 3rd to the right of the one, who sits immediate right of W, doesn't face to the north direction.

Case-I



- 72.(2)
- 73.(1)
- 74.(3)
- 75.(4)
- 76.(4)
- 77.(2)

- I. C > A (False)
- II. E > B (True)

- I. D ≤ C (True)
- II. L > D (True)

- 78.(5)
- 79.(4)

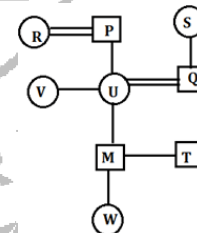
- I. Q > I (False)
- II. M ≥ S (False)

- 80.(3)
- 81.(3)

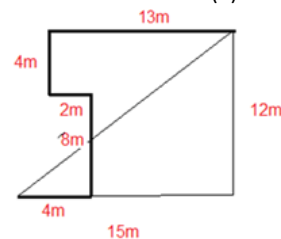
- I. J ≥ Q (False)
- II. Q > J (False)

- 82-84.

- I. N ≥ R (False)
- II. N < R (False)

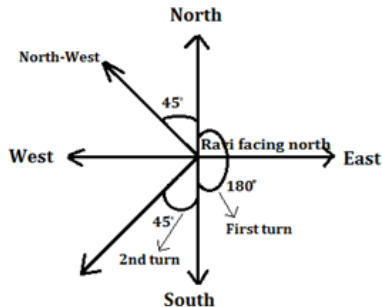


- 82.(4)
- 83.(3)
- 84.(4)
- 85-87. Farhan > Amit > Chetan > Dev > Ellen/ Bipu > Ellen/ Bipu
- 85.(5)
- 86.(4)
- 87.(4)
- 88.(3)



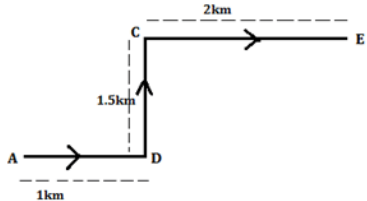
$$\sqrt{15^2 + 12^2} = 3\sqrt{41}$$

89.(1) In Ravi's last turn he moves 270° means when he turns 225° anticlockwise, he reached at same point from where he started. Now he has to turn another 45° anticlockwise to complete 270°. Finally we can find that he faces North-West direction.



Floor	Person	Game
9	Babita	Football
8	Vani	Badminton
7	Seema	Kabaddi
6	Queen	Polo
5	Veena	Bowling
4	Priya	Disc Throw
3	Uma	Golf
2	Tisha	Hockey
1	Ria	Cricket

90.(5) Distance of AE = $\sqrt{3^2 + 1.5^2}$
 $= \sqrt{11.25} = 3.354$
 $= 3\text{km (3000m) approx.}$



91-95. From the conditions, Vani is playing Badminton and lives on floor number 8. Only five people live above the floors on which Priya lives. Only one person lives between Priya and the one who is playing Hockey, it means the one who is playing Hockey lives either 2nd floor or 6th floor. Only three people live between the ones who are playing Hockey and Polo. Uma lives immediately below the one who is playing Disc Throw. The one, who is playing Disc Throw lives on an even numbered floor, so only one place is left for who is playing Disc Throw now it is clear that Priya is playing Disc Throw. Babita is playing Football and lives immediately above Vani now it is clear that Babita lives on topmost floor.
 Only two people live between Queen and the one who is playing Golf. The one, who is playing Golf lives below the floor on which Queen lives. So there is only one possibility that Queen will live on 6th floor.

Case-1

Case-2

Floor	Person	Game
9	Babita	Football
8	Vani	Badminton
7		
6	Queen	Polo
5		
4	Priya	Disc Throw
3	Uma	Golf
2		Hockey
1		

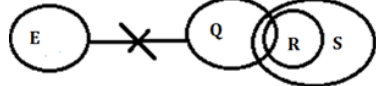
Floor	Person	Game
9	Babita	Football
8	Vani	Badminton
7		
6	Queen	Hockey
5		
4	Priya	Disc Throw
3	Uma	Golf
2		Polo
1		

Tisha lives immediately above Ria. Tisha is not playing Polo, From this condition case-2 will be eliminate. Because in case-2 there is no places for Tisha and Ria. Only case-1 will be continued with the remaining conditions. With the rest conditions, the one who is playing Cricket does not live immediately above or immediately below Queen it means Ria is playing Cricket. Seema does not live immediately above or immediately below Priya so Seema will live on 7th floor. Veena is not playing Kabaddi so Seema will play Kabaddi. It will be fixed that Veena lives on 5th floor and is playing Bowling. We will get final answer.

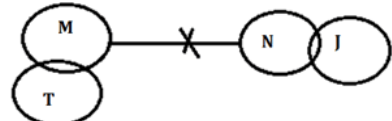
91.(1)
93.(5)
96.(1)

92.(5)
94.(5)

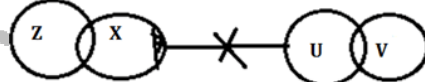
95.(3)



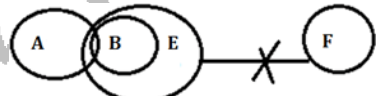
97.(1)



98.(1)



99.(3)



100.(3)

