

IBPS PO Preliminary Grand Test –IPP-180926

HINTS & SOLUTIONS

ANSWER KEY

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

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

2. (3)
 4. (5)
 "ongoing transition" is the correct phrase that makes the sentence meaningful as the word "ongoing" means continuing; still in progress. Other words change the meaning of the sentence and thus they are irrelevant.
 "glitches" adds meaning to the sentence as it means a sudden, usually temporary malfunction or fault of equipment. Other words given in the options are relatively out of the context. They alter the meaning of the sentence so formed. Hence (a) is the correct option.
 "backlash" is the correct word that suits perfectly to the meaning of the sentence as it means a strong negative reaction by a large number of people, especially to a social or political development. Hence (e) is the correct option.
 "the biggest source of worry" is the correct phrase that defines the meaning of the sentence appropriately. Hence (c) is the correct option.
 "exempt" completes the sentence meaningfully as it means free (a person or organization) from an obligation or liability imposed on others. Other words are though nearly the same, but they are grammatically irrelevant and contextually different. Hence (b) is the correct choice.

- 11.(4) "sourcing" is the correct word usage among the given five options as the word means obtaining from a particular source.
 12.(5) "need to claim" is the correct phrase that makes the sentence meaningful. Other words do not suit to the meaning of the sentence. Hence (5) is the correct choice.
 13. (4)
 14. (2)
 15. (3)
 16. (1)
 17. (4)
 18.(4)

While the quantifier 'a little' means something that is not much in quantity, 'little' means something that is almost nil. In the case of sentence (IV), there is almost no knowledge of a certain fact.

Hence except (IV), all sentences are grammatically correct.

- 19.(3) "A good deal" is used as a quantifier with uncountable nouns, like work, writing, etc. The phrase, when not used as a quantifier, can simply mean a deal that is good, like in sentence (III). But the phrase cannot be used as a quantifier with countable nouns as in sentence (II). Hence all sentences except (II) are grammatically correct.

- 20.(3) In case of sentence (I), replace 'were' by 'was' as "The Secretary and Treasurer" denotes the same person. However, if "The Secretary and the Treasurer" were used, then the verb "were" would have been correct as it denotes two different persons and in such cases, it takes plural verb.

e.g. The Secretary and Principal **has** come.
 The Secretary and the Principal **have** come.

In sentence (III), remove 'to' after 'resembles' to make the sentence grammatically correct. "Resemble" is a Transitive Verb and thus it is always followed by Object and not 'to', 'with', etc.

- e.g. She **resembles** her mother.
 Hence only sentences (II) and (IV) are grammatically correct.

- 21.(1) In sentence (II), replace 'take' by 'takes' to make the sentence grammatically correct as "One of" is followed by a Plural Noun or Pronoun but it always takes Singular verb.

e.g. One of the volcanic eruptions **takes** place.

In sentence (III), 'you' should be followed by 'are' as "you" is such a Pronoun which acts the same way in both Nominative Case and Objective Case.

e.g. I like **him** more than **you**. [=I like **him** more than (I like) **you**.]

I like him more than **you do**. [=I like **him** more than **you like him**.]

In sentence (IV), replace 'his' by "one's" as when the subject of the sentence is "One" and it refers to 'anybody' then the possessive of 'one' is "one's".

e.g. **One** should be respectful to **one's** elders.

Hence only sentence (I) is grammatically correct.

- 22.(5)
 23.(4)

Refer to first paragraph of the passage "Significant allocations have been made to power, urban development and inland waterways sectors" "According to the government, total infrastructure spending is

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expected to be about 10% of GDP (gross domestic product) during the 12th Five-Year Plan (2012–17), up from 7.6% during the previous Plan.” Hence sentences (II) and (III) are true.

- 24.(5) Referring to second paragraph, we find that all the given statements are true. Hence option (5) is the right answer.
- 25.(3) “GST impact on infrastructure sector” is an appropriate title of the passage as the author has mentioned that GST impact on infrastructure sector seems to be a mixed bag—predictability and efficiency are key advantages while higher GST rates and non-inclusion of sub-sector are negatives. Hence we can clearly state that “GST impact on infrastructure sector” is an appropriate title.
- 26.(4) Refer to the third paragraph “As works contracts are limited to only immovable properties, turnkey contracts which do not result in immovable property would now be treated as composite supplies.” “Other contracts which do not result in immovable property could be regarded as composite supplies, and depending on the principal supply, tax liability would arise either as a supply of goods or services.” Hence both the sentences (1) and (3) are true.
- 27.(3) Refer to the fifth paragraph “withdrawal of exemptions for road, water supply and sewerage projects sponsored by government and local authorities is expected to increase government spend.”
- 28.(5) Refer to the second last paragraph “a flat GST rate of 18% would lead to increased incidence on infrastructure projects, availability of input tax credits would neutralize such concerns.” “exemptions and concessions to infrastructure have been completely withdrawn. This could also lead to increased working capital requirements.” “Project cost could rise due to increased burden of indirect taxes.” Hence all the above statements are true.
- 29.(2) **Conducive** means making a certain situation or outcome likely or possible. Hence it has similar meaning as **advantageous**.
Exemplary means serving as a desirable model; very good.
Adamant means refusing to be persuaded or to change one's mind.
Paucity means an insufficient quantity or number.
- 30.(2) **Dichotomy** means a division or contrast between two things that are or are represented as being opposed or entirely different. Hence it has the opposite meaning as **resemblance**.
Truculent means defiantly aggressive.
Imperative means of vital importance, crucial.
Hapless means unfortunate and deserving pity.

31.(2)

$$\begin{array}{cccccccc}
 310 & 220 & 148 & 92 & 50 & 20 & & 0 \\
 \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & & \uparrow \\
 -90 & -72 & -56 & -42 & -30 & -20 & & \\
 \hline
 & -18 & -16 & -14 & -12 & -10 & & \\
 \hline
 & & & & & & &
 \end{array}$$

32.(4)

$$\begin{array}{cccccc}
 895 & 495 & 239 & 95 & 31 & 15 \\
 \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\
 -400 & -256 & -144 & -64 & -16 & \\
 \hline
 & 20^2 & 16^2 & 12^2 & 8^2 & 4^2 \\
 \hline
 & & & & &
 \end{array}$$

33.(5)

$$\begin{array}{cccccc}
 20 & 67 & 161 & 302 & 490 & 725 \\
 \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\
 +47 & +94 & +141 & +188 & +235 & \\
 \hline
 & 47 \times 1 & 47 \times 2 & 47 \times 3 & 47 \times 4 & 47 \times 5 \\
 \hline
 & & & & &
 \end{array}$$

34.(2)

$$\begin{array}{cccccc}
 7 & 4 & 5 & 12 & 52 & 424 & 6800 \\
 \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\
 \times 0.5+0.5 & \times 1+1 & \times 2+2 & \times 4+4 & \times 8+8 & \times 16+16 & \\
 \hline
 & & & & & &
 \end{array}$$

35.(4)

$$\begin{array}{cccccc}
 59 & 64 & 75 & 94 & 123 & 164 & 219 \\
 \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\
 +5 & +11 & +19 & +29 & +41 & +55 & \\
 \hline
 & 2^2+1 & 3^2+2 & 4^2+3 & 5^2+4 & 6^2+5 & 7^2+6 \\
 \hline
 & & & & & &
 \end{array}$$

36.(4) Let C.P = x Profit % = $\frac{4}{75}x\%$

$$S.P = \frac{\left(100 + \frac{4}{75}\right)}{100} \times x = 981$$

$$\Rightarrow x^2 + 1875x - 1721250 = 0$$

$$\therefore x = 675$$

37.(2)

$$S.I = 2380$$

$$P = x, T = 4, R = R$$

$$\text{Amount} = 2380$$

$$S.I = 2380 - x$$

$$2380 - x = \frac{x \times 4 \times R}{100} \quad \dots\dots\dots (1)$$

$$P = x$$

$$T = 4$$

$$R = \frac{130}{100} \times R$$

$$\text{Amount} = 2584$$

$$S.I = 2584 - x$$

$$\Rightarrow 2584 - x = \frac{x \times 4 \times \frac{130}{100} R}{100}$$

$$\Rightarrow (2584 - x) \frac{130}{100} = \frac{x \times 4 \times R}{100} \quad \dots\dots\dots (2)$$

$$\text{Equation (1) = (2)}$$

$$R = 10\% \quad P = 1700$$

38.(3) $16247 = P \left[\left(1 + \frac{11}{100}\right)^2 - 1 \right]$

$$\Rightarrow P = 70000$$

$$S.I = \frac{70000 \times 11 \times 2}{100} = 15400$$

39.(4) Let milk = 9x, Water = 4x

$$9x + 4x = 1677$$

$$\Rightarrow 13x = 1677$$

$$x = 129$$

$$\text{milk} = 1161, \text{water} = 516$$

$$\Rightarrow \frac{1161}{516 + y} = \frac{9}{7}$$

$$\Rightarrow 8127 = 4644 + 9y$$

$$\Rightarrow y = 387$$

40.(3) Present age of father = x

$$\text{Present age of son} = y$$

$$12 \text{ years ago : } x - 12 = 6(y - 12) \quad \dots\dots(1)$$

$$12 \text{ years after : } x + 12 = 2.25(y + 12) \quad \dots\dots\dots(2)$$

$$\text{From (1) and (2)}$$

$$y = 20, x = 60$$

41.(5) Total population in city C and E = 38% of 6,00,000 = 2,28,000

$$\text{Total male population in city C and E} = 34\% \text{ of } 4,00,000 = 1,36,000$$

$$\text{Total no. of females in city C and E} = 2,28,000 - 1,36,000 = 92,000$$

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42.(4) Males in B and D together = 38% of 4,00,000 = 1,52,000
 Total population in A and B = 50% of 6,00,000
 = 3,00,000
 Total male population in city A and B = 53% × 4,00,000
 = 2,12,000
 Total female population in A and B in = 88,000
 Ratio = $\frac{1,52,000}{88,000} = \frac{19}{11}$

43.(3) Population of D in 2017 = $6,00,000 \times \frac{12}{100} \times \frac{110}{100} = 79,200$
 Male population of D in 2017 = $4,00,000 \times \frac{13}{100} \times \frac{115}{100} = 59,800$
 Female population in D in 2017 = 79,200 - 59,800
 = 19,400
 Population of C in 2017 = $6,00,000 \times \frac{15}{100} \times \frac{115}{100} = 1,03,500$
 Male population in C in 2017 = $4,00,000 \times \frac{20}{100} \times \frac{120}{100} = 96,000$
 Female population in C in 2017 = 1,03,500 - 96,000
 = 7,500
 Ratio = $\frac{19,400}{7,500} = \frac{194}{75}$

44.(2) Let, population in city C in 2014 = x
 $x \times \left[1 + \frac{20}{100}\right] \left[1 + \frac{20}{100}\right] = 6,00,000 \times 15\%$
 $x \times \frac{120}{100} \times \frac{120}{100} = 90,000$
 x = 62,500

45.(3) No. of females in city C = $6,00,000 \times \frac{15}{100} = 90,000$
 No. of males in D = $13\% \times 4,00,000 = 52,000$
 $\% = \frac{52,000 - 10,000}{52,000} \times 100 = \frac{42,000}{52,000} \times 100 = 80.77\%$
 $\approx 81\%$
 No. of females in city C is 81% less than the number of males in city D.

46.(4) Number of boys studying in all the classes
 = 400 + 450 + 400 + 350 + 275 + 225
 = 2100
 Required Average = $\frac{2100}{6} = 350$

47.(2) Decrease in total number of student studying in class B
 = 5% of 800
 = 40
 Number of boys studying in class B in 2017
 = 450 - 40
 = 410
 Increase in total number of student studying in class F
 = 10% of 600
 = 60
 Number of boys studying in class F in 2017
 = 225 + 60
 = 285
 Required difference = 410 - 285 = 125

48.(3) Number of girls studying in class C = 425
 Number of boys studying in class D = 350
 Required percentage = $\frac{425 - 350}{350} \times 100 = 21.42\%$

49.(1) Total number of girls studying in senior classes (D, E and F)
 = 375 + 300 + 375 = 1050
 Total number of girls studying in junior classes (A, B and C)
 = 375 + 350 + 425 = 1150
 Required Ratio = $\frac{1050}{1150} = \frac{21}{23} = 21 : 23$

50.(2) Difference between number of girls and boys:
 For Class A = 25
 For Class B = 100
 For Class C = 25
 For Class D = 25
 For Class E = 25
 For Class F = 150
 Hence, maximum difference is for the class F.

51.(2) $2x^2 - 5x + 3 = 0$ $y^2 = 1$
 $2x^2 - 2x - 3x + 3 = 0$ $y = \pm 1$
 $2x(x-1) - 3(x-1) = 0$
 $(x-1)(2x-3) = 0$
 $x = 1, x = \frac{3}{2}$

52.(1) $\therefore x \geq y$
 $x = \sqrt{361}$ $y = \sqrt[3]{5832}$
 $x = 19$ $y = 18$
 $\therefore x > y$

53.(3) $21x^2 + 44x + 15 = 0$ $56y^2 + 15y + 1 = 0$
 $21x^2 + 35x + 9x + 15 = 0$ $56y^2 + 7y + 8y + 1 = 0$
 $7x(3x+5) + 3(3x+5) = 0$ $7y(8y+1) + 1(8y+1) = 0$
 $(3x+5)(7x+3) = 0$ $(8y+1)(7y+1) = 0$
 $x = \frac{-5}{3}, x = \frac{-3}{7}$ $y = \frac{-1}{8}, y = \frac{-1}{7}$
 $\therefore x < y$

54.(4) $3x^2 + 14x + 16 = 0$ $y^2 + 3y + 2 = 0$
 $3x^2 + 6x + 8x + 16 = 0$ $y^2 + 2y + y + 2 = 0$
 $3x(x+2) + 8(x+2) = 0$ $y(y+2) + 1(y+2) = 0$
 $(x+2)(3x+8) = 0$ $(y+2)(y+1) = 0$
 $x = -2, x = \frac{-8}{3}$ $y = -2, y = -1$
 $\therefore x \leq y$

55.(5) $x = \sqrt{13.69}$ $3y^2 - 8y - 16 = 0$
 $x = 3.7$ $3y^2 - 12y + 4y - 16 = 0$
 $3y(y-4) + 4(y-4) = 0$
 $(3y+4)(y-4) = 0$
 $y = \frac{-4}{3}, y = 4$

56.(5) \therefore Relationship cannot be established
 Let CP of other brand = Rs x kg
 \therefore CP of 5 kg = $(2 \times 200 + 3 \times x) = \text{Rs } (400 + 3x)$
 SP of 45 kg = $5 \times 177 = \text{Rs } 885$
 $\therefore \frac{885 - (400 + 3x)}{485 - 3x} \times 100 = 18$
 $\Rightarrow \frac{485 + 3x}{400 + 3x} = \frac{9}{50}$
 $\Rightarrow 177x = 20650$
 $x = 116\frac{2}{3}$
 So, cost of other brand = Rs 116.66

57.(1) Let reduced weight = x
 Clearly, quantity of pulp remains the same in both the cases
 $\therefore (100 - 96)\% \text{ of } 20 \text{ kg} = (100 - 95)\% \text{ of } x \text{ kg}$
 $\Rightarrow x = 16 \text{ kg}$

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58.(3) Let original weight = x
 \therefore weight of container = $\frac{25x}{100} = \frac{x}{4}$
 Original weight of fluid = $x - \frac{x}{4} = \frac{3x}{4}$
 New weight of (Container + Fluid) = $\frac{50}{100}x = \frac{x}{2}$
 New weight of Fluid = $\left(\frac{x}{2} - \frac{x}{4}\right) = \frac{x}{4}$
 \therefore required fraction = $\frac{\left(\frac{3x}{4} - \frac{x}{4}\right)}{\frac{3x}{4}} = \frac{x}{2} \times \frac{4}{3x} = \frac{2}{3}$

59.(1) Let the must produce x items
 \therefore CP = $40x + 3000$
 SP = $60x$
 According to question
 $60x - (40x + 3000) = 1000$
 $\Rightarrow x = 200$

60.(4) Let at present there be x boys
 \therefore No. of girls at present = $5x$
 Before the boys had left, No. of boys = $x + 45$
 No. of girls = $5x$
 $\therefore x + 45 = 2 \times 5x$
 $\Rightarrow x = 5$
 \therefore No. of girls in the beginning = $5x + 15 = 40$

61.(4) $\frac{24}{100} \times 480 + \frac{30}{100} \times 270 + \frac{48}{100} \times 10 = x$
 $x = 24 \times 4.8 + 3 \times 27 + 4.8$
 $x = 115.2 + 81 + 4.8$
 $x = 201$

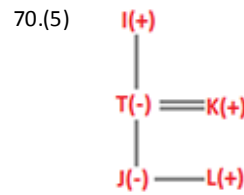
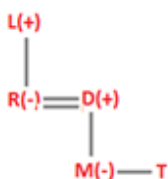
62.(2) $x = 19 \times \frac{4}{38} \times 26 + \frac{1024 \times 5}{4}$
 $x = 4 \times 13 + 1280$
 $x = 1332$

63.(2) $\frac{x}{100} \times \frac{360}{72} + \frac{28}{100} \times 625 = \frac{2}{7} \times 315$
 $\frac{x}{20} + \frac{7}{25} \times 625 = 2 \times 45$
 $\frac{x}{20} + 175 = 90$
 $\frac{x}{20} = -85$
 $x = -1700$

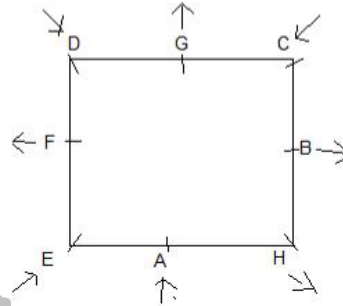
64.(1) $\frac{841}{116} \times 4 + 256\sqrt{x} = 541$
 $\frac{841}{29} + 256\sqrt{x} = 541$
 $256\sqrt{x} = 541 - 29$
 $256\sqrt{x} = 512$
 $\sqrt{x} = 2$
 $x = 4$

65.(5) $68 \times 24 - \frac{2}{100} \times 1600 = x^2$
 $x^2 = 1632 - 32$
 $x = 40$

- 66.(1) (I) $H \geq R > T = L$ [True] (II) $T < R \leq H > K$ [False]
 67.(5) (I) $G \leq D < N \leq P$ [True] (II) $G < B \leq J$ [True]
 68.(2) (I) $E < I > N = R \geq S$ [False] (II) $N = R \geq S$ [True]
 69.(4)



71-75.



71. (5) 72. (1) 73. (4) 74. (1) 75. (4)
 76-80.

Step 1: From the given definite conditions: - Vinay wears white color arm band and belongs to Kalam house, but he plays neither Volleyball nor Cricket. Rahul belongs to Bose house. . The one who plays Tennis wears Orange color arm band. . Durgesh is a tennis player and belongs to Bhabha house. . Arjun does not belong to Patel House and Shivaji house. Vikash is a Hockey Player and he belongs to neither Raman house nor Shivaji house.

House	Sports	Student	Color(armband)
Raman		Vikash	
Kalam	Volleyball/cricket	Vinay	White
Bhabha	Tennis	Durgesh	Orange
Bose		Rahul	
Patel		Arjun	
Shivaji		Vikash/ Arjun	

Step 2: As mentioned in step 1 that Vikash is a Hockey Player and he belongs to neither Raman house nor Shivaji house, then only one place left for Vikash that Vikash belongs to patel house. And Arjun belongs to Raman House, as he does not belong to Patel and Shivaji house. Then Raman belongs to Shivaji house. The players who belong to Bhabha house and Raman house wear the same color arm band. Raman wears the same color of arm band as the person who belongs to Bose House wears, but he is not a Football Player. Now it is given that not more than two members wears the same color armband so Rahul and Raman wear the Green color armband. And Vikash wears the white color armband.

House	Sports	Student	Color(armband)
Raman		Arjun	Orange
Kalam	Volleyball/cricket	Vinay	White
Bhabha	Tennis	Durgesh	Orange
Bose		Rahul	Green
Patel	Hockey	Vikash	White
Shivaji		Raman	Green

Step 3: The Football player wears a Green color arm band. Raman is not a football player so Rahul wears green color armband so he plays Football. The one who is player of Volleyball wears Orange color arm band. So there is only Arjun who likes orange color other than Durgesh
 So Arjun plays volley ball. Now as Vinay does not play volleyball nor Cricket so he plays Badminton. Hence we get our final answer.

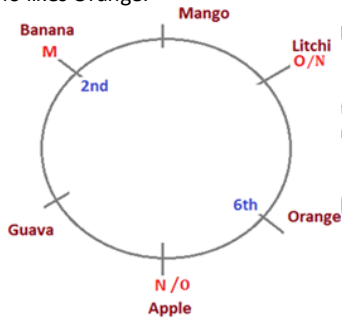
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House	Sports	Student	Color(armband)
Raman	Volleyball	Arjun	Orange
Kalam	Badminton	Vinay	White
Bhabha	Tennis	Durgesh	Orange
Bose	Football	Rahul	Green
Patel	Hockey	Vikash	White
Shivaji	Cricket	Raman	Green

- 76.(4) 77.(3) 80.(5)
 78.(4) 79.(2)

81-85. From the given conditions, M likes Banana and lives on 2nd floor and he is facing the person who likes Orange. The only person, who is between N and O, like Orange. The person who lives on 2nd floor sits on the immediate left of the person who likes Guava. The One who likes Litchi sits on the immediate right of the person, who lives on 6th floor but on the immediate left of the person who likes Mango. The persons who like Apple, Mango and Guava are live on neither 6th nor 1st floors. Rest the person, who likes Apple sits immediate left of the person, who likes Orange.

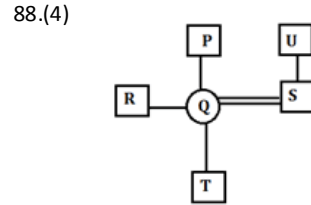
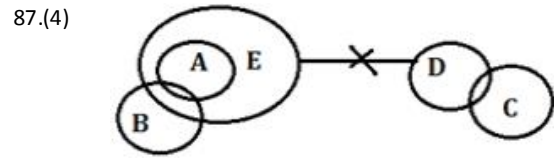
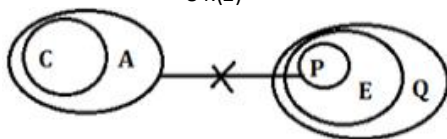


From the rest conditions, O does not like Apple. Hence N likes Apple and O likes Litchi. The one, who likes Apple, is sitting opposite to the person who lives on 5th floor. The persons, who live on 4th and 2nd floors like neither Apple nor Litchi. Hence the person, who likes Guava, lives on 4th floor. The persons who like Apple, Mango and Guava are live on neither 6th nor 1st floors. Hence the person, who likes Apple, lives on 3rd floor. And the person, who likes Litchi, lives on 1st floor. J neither lives on 6th floor nor sits on the immediate left of the person who like Banana. Hence J lives on 4th floor. L does not like Mango. Hence L likes Orange and the rest K likes Mango.

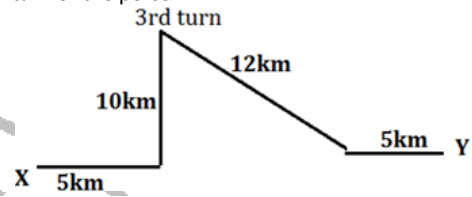
The final arrangement are-



- 81.(5) 82.(4) 85.(1)
 83.(3) 84.(2)
 86.(3)



- 89.(3) Point Y is in South- East direction with respect to 3rd turn of the person.



- 90.(4) $U \leq Q = A < S = J > H \geq K$
 91-95. White Orange Red
 A F D
 I I I
 I I I
 C B E
 Yellow Green Blue
 92.(4)
 93.(3) 94.(4)
 96-100.

Word	Code
Agencies	lo
Rating	we
may	bg
exchange	ui
india	tr
credit	ij
board	te

- 96.(3) 97.(2)
 98.(5) 99.(3) 100.(4)