

IBPS PO Preliminary Grand Test –IPP-171017 HINTS & SOLUTIONS

	ΙA	NSWER K	ŒΥ		
1.(4)	21.(3)	41.(1)	61.(4)	81.(3)	
2.(3)	22.(4)	42.(3)	62.(2)	82.(3)	
3.(3)	23.(1)	43.(4)	63.(2)	83.(5)	
4.(1)	24.(2)	44.(3)	64.(1)	84.(1)	
5.(5)	25.(4)	45.(3)	65.(5)	85.(5)	
6.(2)	26.(5)	46.(5)	66.(5)	86.(4)	
7.(5)	27.(5)	47.(4)	67.(5)	87.(3)	L
8.(5)	28.(2)	48.(3)	68.(5)	88.(4)	
9.(1)	29.(3)	49.(2)	69.(3)	89.(2)	h
10.(1)	30.(1)	50.(3)	70.(2)	90.(5)	ſ
11.(2)	31.(1)	51.(3)	71.(3)	91.(4)	
12.(3)	32.(2)	52.(2)	72.(2)	92.(5)	
13.(4)	33.(3)	53.(5)	73.(5)	93.(1)	//
14.(1)	34.(4)	54.(2)	74.(3)	94.(3)	ľ
15.(5)	35.(1)	55.(5)	75.(4)	95.(2)	L.
16.(4)	36.(4)	56.(2)	76.(1)	96.(4)	
17.(5)	37.(3)	57.(4)	77.(5)	97.(3)	
18.(2)	38.(2)	58.(5)	78.(2)	98.(4)	Ä.
19.(3)	39.(3)	59.(2)	79.(2)	99.(3)	
20.(1)	40.(4)	60.(4)	80.(1)	100.(4)	٠,

HINTS & SOLUTIONS

1.(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

- 2.(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.
- 3.(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.

4.(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. | like him more than you. [=| like him more than (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.

All the given sentences are grammatically correct.

Read the complete passage carefully. Statements (1), (3) and (4) can be easily accessed from the passage while statement (b) finds no relevance as it is not mentioned anywhere in the passage that the inclusion of the word secularism in the Preamble would create the right atmosphere to urge minorities to play a positive role in the development and progress of the nation. Hence only option (2) does not form the part of the passage.

Refer the third and fourth paragraphs of the passage, all three reasons are well explained that led the Constitution-makers to avoid defining the term in the Preamble. Hence (5) is the correct option.

- 8.(5) Refer the second paragraph of the passage, "India's brand of secularism is a complex mix of constitutional provisions that guarantee all persons freedom of conscience and the right to free profession, practice and propagation of religion; the freedom to manage religious affairs; the freedom from being compelled to pay taxes to promote a particular religion; and protection of the interests of minorities." Hence all four statements are correct in context of the passage.
- 9.(1) Refer the second paragraph of the passage, "One only needs to read contemporary news headlines to understand the severity of these challenges to secularism. They appear insurmountable partly because India's unique brand of secularism has not been sufficiently understood either by its contemporary rulers or by civil society." Hence only option (1) is correct in context of the passage.
- 10.(1) Refer the first paragraph of the passage, "JUSTICE VIKRAMJIT SEN, A RETIRED JUDGE of the Supreme Court,

5.(5)

6.(2)

1

once observed during the hearing of a case in 2015: "India is a secular country, but I don't know how long it will remain so." A sense of exasperation might have been behind his observation..." Hence only statement (I) is correct in context of the passage.

- 11.(2) Refer the second last sentence of the third paragraph, "But Parliament's insertion of the word "secular" along with the word "socialist" to describe the Indian Republic in the Preamble during the Emergency (1975-77) was, to infer from the debates, aimed at emphasising the "larger objective"." Hence only statement (II) is correct in context of the passage.
- 12.(3) Conceive means form a mental representation of; imagine. Hence "Perceive" is the word most similar in meaning to it.
- 13.(4) Exasperation means a feeling of intense irritation or annoyance. Vexation means the state of being annoyed, frustrated, or worried. Hence both are similar in meanings.

Exigent means pressing; demanding.

Tedious means too long, slow, or dull; tiresome or monotonous.

Quibbling means argue or raise objections about a trivial matter

14.(1) Insurmountable means too great to be overcome. Hence "Vulnerable" is the word most opposite in meaning to it

Impervious means unable to be affected by.

15.(5) Conviction means a firmly held belief or opinion. Hence "Doubt" is the word most opposite in meaning to it.

Conjecture means an opinion or conclusion formed on the basis of incomplete information.

Dictum means a formal pronouncement from an

authoritative source.

Dogma means a principle or set of principles laid down by an authority as incontrovertibly true.

16.(4) Phase out means a gradual stopping (as in operations or production): a closing down by phases.

Stamp out means to end something bad or unpleasant by taking strong and determined action.

Dexterous means showing or having skill, especially with the hands.

Shell out means to spend a certain amount of money.

17.(5) Revivalist means one who conducts religious revivals; specifically a member of the clergy who travels about to conduct revivals.

Pastor means a minister in charge of a Christian church or congregation, especially in some non-episcopal churches.

Esteem means respect and admire.

18.(2) Feudal means absurdly outdated or old-fashioned.
 Franchise means the rights of citizenship.

 Primitive means very basic or unsophisticated in terms of comfort, convenience, or efficiency.
 Autarchy means economic independence or self-sufficiency.

19.(3) Customary means according to the customs or usual practices associated with a particular society, place, or set of circumstances.

Forthrightness means bluntness, candidness.

Requisition means an official order laying claim to the use of property or materials.

Intimidating means frightening; menacing.



- 20.(1) Regime means a government, especially an authoritarian one.
 - Disposition means a person's inherent qualities of mind and character.

Subservient means less important; subordinate.

- 21.(3) "defining" is the correct word replacement as it means state or describe exactly the nature, scope, or meaning of. Here, defining is used to describe a whistle-blower. Other options do not fit into sentence in context of their meanings.
- 22.(4) "expose" is the correct word replacement as it means make (something) visible by uncovering it. It is to be noted that the verb it requires should be plural as the Subject it denotes is Plural (government officials). Hence based on Subject-Verb agreement and its meaning, option (4) is the correct choice.
- 23.(1) "progressive" is the correct word replacement as it means happening or developing gradually or in stages.

 The phrase "progressive expansion" adds meaning to the paragraph. Hence option (1) is the correct choice.
- 24.(2) "information" is the correct word replacement as it means what is conveyed or represented by a particular arrangement or sequence of things. Options (1), (3) and (4) can be easily eliminated as they can't be obtained under RTI Act. Hence "on the basis of information they obtained under the Right to Information (RTI) Act" makes a good choice.

"empowered" is the correct word replacement as it means make (someone) stronger and more confident, especially in controlling their life and claiming their rights. Other options are neglected on the basis of their usage.

- 26.(5) "privy" is the correct word in context of its usage in the sentence as it means sharing in the knowledge of (something secret or private). Hence (5) is the correct option.
- 27.(5) "potential" is the correct word in context of its usage in the sentence as it means having or showing the capacity to develop into something in the future. The phrase "making every citizen a potential whistle-blower" adds meaning to the sentence. Hence (e) is the correct choice.
- 28.(2) "concealing" is the correct word replacement as it means preventing (something) from being known; keep secret. "concealing the identity" makes an appropriate phrase and adds meaning to the sentence. Hence (2) is the correct choice.
- 29.(3) "specifically" is the correct word replacement as it means in a way that is exact and clear; precisely. "specifically requested" makes the sentence complete and meaningful. Hence (3) is the correct choice.
- 30.(1) "leaked" is the correct word replacement as it means intentionally disclosed (secret information). "the information was leaked" is the correct phrase to add meaning to the paragraph. Hence (1) is the correct choice.

25.(4)



31.(1) Suppose, he purchases 900 cm of cloth
And the mark-price of the cloth be Rs. 100 per cm.
Actual length of cloth brought by him = 990 cm.
C.P. for him = Rs. (900 × 95) = Rs. 85,500

C.P. for him = Rs. (900×95) = Rs. 85,500While selling, he gives 90 cm for a meter.

Hence, he will give 990 cm for $\frac{100}{90} \times 990 = 1100$ cm.

S.P. for him = Rs. (1100×90) = Rs. 99,000 $Profit\% = \frac{(99000 - 85500)}{85,500} \times 100 \approx 15.8\%$

Short-trick: $x \times \frac{11}{10} \times \frac{10}{9} \times \frac{18}{19} = 1.1578x$ $\Rightarrow 15.7 \approx 15.8\% \text{ profit}$ Let, A's salary one year ago be Rs. 12x

32.(2) Let, A's salary one year ago be Rs. 12x and B's salary one year ago be Rs. 16x A's salary this year = Rs. $\left(\frac{12x}{4} \times 5\right)$ = Rs. 15x

B's salary this year = Rs. $\left(\frac{16x}{4} \times 3\right)$ = Rs. 24x

ATQ, 15x + 24x = 41600or, 39x = 41600or, $x = \frac{41600}{39}$

A's present salary = $15x = 15 \times \frac{41600}{39} = 16,000$

33.(3) Required probability = $\frac{12}{19} \times \frac{11}{18} = \frac{22}{57}$

Note: The result of third pick doesn't impact the probability of first two chances.

34.(4) A takes a total of $12 \times 8 = 96$ hours to complete the work B takes a total of $10 \times 8 = 80$ hours to complete the work Let, in x days they complete the work together working 8 hours a day. Then, $\frac{1}{96} + \frac{1}{80} = \frac{1}{8x}$ or, $\frac{1}{12} + \frac{1}{10} = \frac{1}{x}$ or, $\frac{1}{12} + \frac{1}{10} = \frac{1}{x}$

or, $\frac{11}{60} = \frac{1}{x}$ or, $\frac{11}{60} = \frac{1}{x}$ or, $x = \frac{60}{11} = 5\frac{5}{11}$ days

- 35.(1) Let, the amount invested in scheme B be Rs. 'x', $\frac{(13900 x) \times 14 \times 2}{100} + \frac{x \times 11 \times 2}{100} = 3508$ or, $13900 \times 14 3508 \times 50 = 3x$ or, 19200 = 3xor, x = 6400
- 36.(4) The distance between them 1 minute before they collide is equal to the distance covered by them towards each other in 1 minute.

Hence, req. answer = $\left(\frac{1}{60}\right) \times 15 = \frac{1}{4} = 0.25 \text{ km}$

37.(3) ATQ, $\frac{2000 \times x}{100} + \frac{2000 \times (x+2)}{100} + \frac{2000 \times (x+4)}{100} + \frac{2000 \times (x+6)}{100} + \frac{2000 \times (x+8)}{100} = 1500$ $or, \frac{2000}{100} (x+x+2+x+4+x+6+x+8) = 1500$ $or, 5x+20 = \frac{150}{2}$ or, x = 11

- 38.(2) Average C. P. of all three varieties = $30 \times \frac{5}{6}$ = Rs. 25 Let, x kgs of first variety y kys of second variety are taken, then, $(x+y+2)25 = 20x + 24y + 30 \times 2$ or, 5x + y = 10 x = 1 & y = 5 are the only possible values.
- 39.(3) Total ways of arranging the four letters = $\frac{4!}{2! \, 2!} = 6$ No. of arrangements where vowels are together $= \frac{(4-2+1)!}{2!} = 3$ Req. no. of ways = 6 3 = 3

Hence, 5 kgs of second variety are taken.

40.(4) Let, the distance between X and Y be 'x' km. When B covers 'x - 11' km, A covers 'x + 11' km When B covers 'x + 9' km, C covers 'x - 9' km ATQ,

Alg. $\frac{(x+11)}{(x-11)} \times (x+9) = \frac{3}{2}$ or, $2(x^2+20x+99) = 3(x^2-20x+99)$ or, $x^2-100x+99=0$ or, x=99,1

Hence, answer is x = 99, as x = 1 is not acceptable.

I. $x^2 + 13x + 42 = 0$ $\Rightarrow (x + 6) (x + 7) = 0$ $\Rightarrow x = -6, -7$ II. $y^2 + 19y + 90 = 0$ $\Rightarrow (y + 9) (y + 10) = 0$ $\Rightarrow y = -9, -10$ $\therefore x > y$ I. $x^2 + 15x + 56 = 0$ $\Rightarrow (x + 7) (x + 8) = 0$

41.(1)

43.(4)

- I. $x^2 + 15x + 56 = 0$ $\Rightarrow (x + 7) (x + 8) = 0$ $\Rightarrow x = -7, -8$ II. $y^2 - 23y + 132 = 0$ (y - 12) (y - 11) = 0 $\Rightarrow y = 12, 11$ $\therefore x < y$
- I. $x^2 = 144$ $\Rightarrow x = \pm 12$ II. $y^2 - 24y + 144 = 0$ $\Rightarrow y^2 - 12y - 12y + 144 = 0$ $\Rightarrow y(y - 12) - 12(y - 12) = 0$ $\Rightarrow (y - 12)(y - 12) = 0$ $\Rightarrow y = 12$ $\therefore x \le y$



- 44.(3) $I. 2x^2 + 19x + 45 = 0$ $\Rightarrow 2x^2 + 10x + 9x + 45 = 0$ $\Rightarrow 2x(x+5)+9(x+5)=0$
 - \Rightarrow (x + 5) (2x+9) = 0
 - $\Rightarrow x = -5, -\frac{9}{3}$
 - II. $2y^2 + 11y + 12 = 0$
 - $\Rightarrow 2y^2 + 8y + 3y + 12 = 0$
 - \Rightarrow 2y (y + 4) + 3 (y + 4) = 0
 - \Rightarrow (y + 4) (2y + 3) = 0
 - $\Rightarrow y = -4, -\frac{3}{3}$
- 45.(3) $I. 3x^2 - 13x + 12 = 0$ $\Rightarrow 3x^2 - 9x - 4x + 12 = 0$ \Rightarrow 3x (x - 3) - 4 (x - 3) = 0 \Rightarrow (x - 3) (3x - 4) = 0 $\Rightarrow x = \frac{4}{3}, 3$
 - $II. 2y^2 15y + 28 = 0$
 - $\Rightarrow 2v^2 8v 7v + 28 = 0$
 - $\Rightarrow 2y(y-4)-7(y-4)=0$
 - \Rightarrow (y 4) (2y 7) = 0
 - $\Rightarrow y = \frac{7}{2}$, 4
 - : y > x
- Total population in city C and E = 38% of 6,00,000 46.(5) = 2,28,000
 - Total male population in city C and E = 34% of 4,00,000= 1,36,000
 - Total no. of females in city C and E = 2,28,000 1,36,000= 92,000
- 47.(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 $=53\% \times 4,00,000$ Total male population in city A and B
 - = 2,12,000
 - Total female population in A and B in = 88,000
 - $\frac{1,52,000}{} = \frac{19}{}$ Ratio = 88.000
- Population of D in 2017 = 6,00,000 × $\frac{12}{100}$ × $\frac{110}{100}$ = 79,200 Male population of D in 2017 = 4,00,000 × $\frac{13}{100}$ × $\frac{115}{100}$ = 59,800 48.(3)

 - = 79,200 59,800 Female population in D in 2017
 - = 19,400
 - Population of C in 2017 = 6,00,000 × $\frac{15}{100}$ × $\frac{115}{100}$ = 1,03,500 Male population in C in 2017 = 4,00,000 × $\frac{20}{100}$ × $\frac{120}{100}$ = 96,0

 - Female population in C in 2017 = 1,03,500 96,000
 - $Ratio = \frac{19,400}{7,500} = \frac{194}{75}$
- Let, population in city C in 2014 = x49.(2)
 - $= 6,00,000 \times 15\%$
 - $x \times \frac{120}{100} \times \frac{120}{100} = 90,000$
 - x = 62,500

- No. of females in city C = $6,00,000 \times \frac{15}{100} 4,00,000 \times \frac{20}{100}$ 50.(3) = 90,000 - 80,000 = 10,000
 - No. of males in D = $13\% \times 4,00,000$
 - = 52,000
 - $52,000 10,000 \times 100 =$ $\frac{12,000}{52,000} \times 100 = 80.77\%$ 42,000
 - ~ 81%
 - No. of females in city C is 81% less than the number of males in city D.
- Let, Laptop manufactured by P, (in March) = x 51.(3) Laptop manufactured by Q, (in March) = y
 - Given $\rightarrow x + y = 1000$
 - And, 30% x + 40% y = 340
 - 3x + 4y = 3400
 - &x + y = 1000...(ii)
 - On solving (i) & (ii)
 - We get, x = 600 = laptop manufactured By P (March)
 - y = 400 = Laptop manufactured by Q (March)
 - Desired difference = 600 400 = 200
- 52.(2) Laptop sold by P in Jan = $450 \times 20\%$

 - Laptop sold by Q in April = $650 \times 20\% = 130$
 - Desired% = $\frac{130-90}{130} \times 100 = \frac{40}{130} \times 100 = 30\frac{10}{13}\%$
- Let, laptop manufactured by Q in march = x 53.(5)
 - Given data $x \times 40\% = 450 \times 20\% + 240 \times 15\%$
 - $x \times 40\% = 90 + 36$
 - $x \times 40\% = 126$
- $x = \frac{126}{40} \times 100 = 315$ 54.(2)
 - Desired ratio = $\frac{300 \times 25\%}{400 \times 20\%}$
 - 15 16
- No. of laptops manufactured in March By P 55.(5)
 - $=426 \times 5 450 300 540 240$
 - = 600
- 56.(2)
- 57.(4) 162 122
- 58.(5)
- 59.(2)
- 60.(4)

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

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

$$\frac{841}{29} + 256\sqrt{x} = 541$$

$$256\sqrt{x} = 541 - 29$$

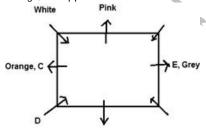
$$256\sqrt{x} = 512$$

$$\sqrt{x} = 2$$

$$x = 4$$

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

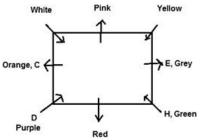
66-70. In this puzzle, there is some condition that is helpful to arrange these friends on Square table. E sits third to the right of D and likes grey colour. There are two persons sit between E and the one who likes white colour and D does not like white colour. There is one person between the one who likes Orange colour and Pink colour, who is not the neighbor of D, who sits at the corner. C who likes Orange, sits opposite of E.



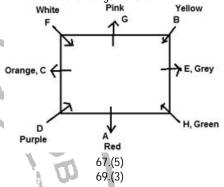
Persons who like purple and yellow colour sits opposite to each other and both of them are not the neighbor of D. For this condition, there is only one place left to fulfill this condition, So D and diagonally opposite of D would like Purple color and yellow color. But there is one more condition that H who likes green colour sits second to the right of the person who likes purple colour. That means D will like Purple color. F does not like Pink and Yellow colour. G is not the neighbor of D and E.



70.(2)



Note: There are two persons sit between A, who does not like yellow colour and B who sits at the corner side of the table. For this condition, B will seat adjacent C or E. If B sit adjacent to C, then F will like Pink or Yellow but it is given that, F does not like Pink or Yellow colour. So B will sit adjacent to E. and F will like White and G will like Pink. Then final arrangement is-



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

/1.(3)	/2.(2)	
73.(5)	74.(3)	75.(4)
7/ /1)		

Distance covered in 2 hours = 70 x 3 = 210 km

 $\sqrt{10}$ Time taken to cover the remaining distance = 410-210 = 200 km Time= 200/40= 5hrs

Total time= 5+3=8 hrs

A will reach Delhi at 11:00PM= >?

77.(5) 11:40 = <?

81-85.

66.(5)

68.(5)

71-75

78.(2) T=D/S = 16000m/2km/hr

T=16km/2km/hr=8:00hrs

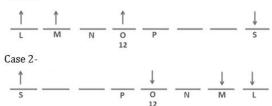
8:00 hrs = ><

79.(2) R will take 2 hrs = >@ to finish all tasks.

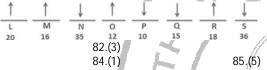
80.(1) B will take 2hrs to finish a work, he started work at \$> = 12:15, it means he will finish a work at 2:15 = \$@.

It is given that N is seated second to the right of L so there can be two possibilities. The person who scored in square digit sits at one of the extreme ends so he scored either 16 or 36 runs. M scored in square digit and is seated between the persons who scored 20 runs and the one who scored equal to the sum of the score which is scored by L and Q.M does not sit at the extreme end so M scored either 16 or 36 runs and the immediate neighbours of M scored 20 and 35 runs. L and Q scored either 15 or 20 runs. O scored 12 and seated between N

and P. L is not the neighbour of S. P did not score 18 and sits third to the right of S. L is immediate left of M who is not the neighbor of P. L sits third to the left of O. Case 1-



It is given that S sits second to the left of Q whose immediate neighbours face opposite direction. Q does not face north direction so case 2 will be eliminated. Hence R sits immediate right to S in case 1. R faces the same direction as L and P faces the same direction as N. so R faces north. P faces south and N faces South as because immediate neighbour of Q faces opposite direction . L did not score 35 so L scored 20 runs and N scored 35 runs hence Q scored 15 runs. The person who scored 15 is seated between the persons who scored 10 and the one who scored half of S hence S scored 36 runs so M scored 16 runs. P scored 10 runs and R scored 18 runs.



81.(3) 83.(5) 86-90.

Step1: 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		Ariun	
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 Ārjun plays volley ball. Now as Vinay does not play volleyball nor Cricket so he plays Badminton. Hence we get our final answer.

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

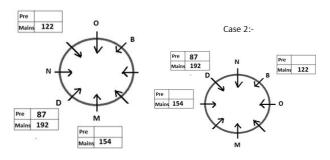
86.(4) 87.(3) 88.(4) 89.(2) 90.(5) 91-95. Step1: From the given definite conditions: - M sits 3 rd

Step1: From the given definite conditions: - M sits 3 rd to the left of B. The one who got highest marks in the mains examination is sitting immediate right of N. O sits 2 nd to the left of N and does not face B. The one who got highest marks in the mains exam is neither M nor B. The one who got highest marks in pre exam got the highest marks in the mains exam as well. D have highest marks in the pre exam, so from this it is clear that D got 192 marks in the mains exam. So from the given statement above we can deduced that N does not sit either immediate left or immediate right of M, so there are only two places where N can sit is 2 nd to the left of M and immediate right of B. And in the same way there are two places where O can sit as O sits 2 nd to the left of N. Hence there are two possible cases.

Step 2:- It is given that, the one who got 122 marks in the mains examination sits immediate right of O. The one who got 154 marks in the mains examination faces O. A got thrice the marks in mains examination what he got in the pre examination, So from these it is clear that A got 50 marks in Pre exam and 150 marks in the mains exam. But it is given that B has got 168 marks in the mains exam, and as in the 2nd case B has got 122 marks in the mains exam which can't be possible so the 2nd case will be eliminated.

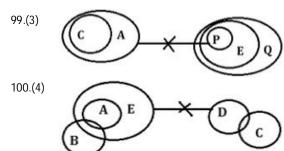
Case 1:-

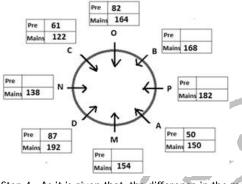
Case 1:-



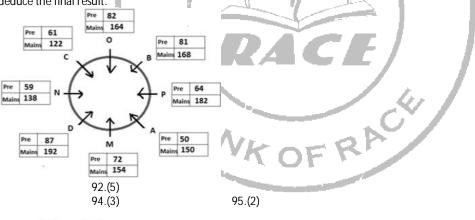
D RACE

Step 3:- Now it is given that, the one who got 138 marks in the mains examination is facing P. The one who got 150 marks in the mains exam faces C. So C faces A as A got 150 marks in the mains exam as mentioned in step 1 and there is only place where A can sit is immediate right of M. The one who got 138 marks in the mains examination is facing P, so P faces N. Two students who got half the marks in their pre examination what they got in their mains exam are immediate neighbours. So one of them is C as he got 122 marks in mains, and other student will be O, so O got 82 and 164 marks in the pre mains respectively.

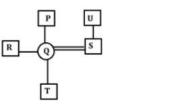




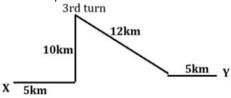
Step 4:- As it is given that, the difference in the marks of P and M what they got in pre exam is 8. P got 5 marks more than N in the pre exam, so from these two statements we can deduce that P got 64 and N got 59 marks and M got 72 marks in the pre exam. Hence we deduce the final result.



91.(4) 93.(1) 96.(4)



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



98.(4) $U \le Q = A < S = J > H \ge K$