IBPS PO Preliminary Grand Test –IPP-180921

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1.(1) "since the 1950-53 Korean War ended with an armistice" is the correct phrase to replace the bold part as 'since' in this case is used to describe the reason. Hence (a) is the correct option.

2.(2) "have not brought about any improvement" is the correct phrase replacement as the phrase " **bring about**" means to make something happen, especially to cause changes in a situation. Hence (b) is the correct option.

3.(5) The given sentence is grammatically correct.

4.(3) "Given the fact that almost half of" is the correct phrase replacement as it makes the sentence grammatically correct. Other options are grammatically incorrect. So (c) is the correct choice.

5.(2) As the sentence is in passive form, "were severely criticized in both these countries as well" is the correct phrase to make the sentence grammatically correct.

6.(5) The given sentence is grammatically correct.

7.(1) "to be more prudent than the ones offered by" is the correct phrase replacement to make the sentence grammatically correct because 'as' is used in positive degree but here comparative degree is given and we use 'to be' in comparative degrees.

8.(4) "has come a long way since Independence" is the correct phrase replacement as the sentence is in Present Tense. Hence (d) is the correct option.

9.(5) The given sentence does not require any correction as it is grammatically correct.

10.(3) "to suspend diplomatic ties with" is the correct phrase replacement to make the sentence grammatically correct because here the 'ties' is used to signifiy 'connection' or 'link' and therefore the use of prepositon 'with' is suitable and not 'to' which makes it grammatically incorrect.

11.(4) Clearly in the 2nd paragraph of the passage the author has explained how the deferral system has increased the stash in offshore tax deferred accounts.

12.(3) Democrats weren't against the repatriation but they viewed deferral as an unjustified reward for tax avoidance also due to the reason that they failed to keep their promise.

13.(2) Refer to the 4th paragraph of the passage, "But the money won't be repatriated and taxed under American law if Europeans, in the course of enforcing their own laws against tax havens, get their hands on it first and that in the nutshell is the reason due to which the members of Congress and Treasury officials are not in favour of the Apple ruling."

14.(5) None of these is the correct choice. Option (i) is incorrect as the new minimum tax is 19 percent after the proposal. Option (iii) is incorrect as tax holiday wasn't a complete success as the promises were not kept. Option (ii) is also incorrect as it is not mentioned if apple has the largest stash in the deferred accounts.

15.(4) It is mentioned in the passage that Apple's ignorance due to its arrogance and congress' idleness is the possible reason for the situation.

16.(2) Refer to the last paragraph of the passage, ". An even better solution would be to simply end indefinite corporate tax deferral, imposing American taxes on profits when they are made."

17.(1) **Stashing** means store (something) safely in a secret place hence **garner** is the word most similar in meaning which means gather or collect (something, especially information or approval).

18.(3) **Enticing** means attractive or tempting; alluring hence **enchanting** is the word most similar in meaning which means delightfully charming or attractive.

19.(1) **Repatriate** means return to one's own country hence **expatriate** is the word most opposite in meaning which means send (a person or money) abroad.

20.(5) **Worse** means of poorer quality or lower standard; less good or desirable hence **supercalifragilisticexpialidocious** is the word most opposite in meaning which means wonderful.

21.(3) "graduating" is the correct word replacement as it means successfully completing an academic degree, course of training, or high school.

22.(2) "enrolment" is the correct word replacement as it means the action of enrolling or being enrolled.

23.(4) "desperately" is the correct word replacement as it means used to emphasize the extreme degree of something.

24.(5) "institutions" is the correct word and it does not require any replacement as the word is in plural form (i.e. various higher education **institutions**)

25.(2) "perceived" is the correct word replacement as it means interpret or regard (someone or something) in a particular way.

26.(1) "astounding" is the correct word replacement as it is in positive sense than other given options.

27.(5) "phenomenon" is the correct word as it doesn't require any correction as it means a fact or situation that is observed to exist or happen, especially one whose cause or explanation is in question.

28.(5) "intellectually" is the correct word as it does not require any correction as it means cleverly.

29.(3) "mediocre" is the correct word replacement as it means of only average quality; not very good.

30.(4) "hinges" is the correct word replacement as the verb should be singular in particular with the subject of the sentence. Hinge means attach or join with or as if with a hinge.

31.(3) $65\% \times 380 - ? \times \frac{3}{2} \approx 21 + 80$

$\Rightarrow 247 - ? \times \frac{3}{2} \approx 101 \Rightarrow ? = 96.$

32.(1) $\approx 7^2 + \frac{12}{24} + \frac{\sqrt{?}}{12} = 50$

$\approx 49 + \frac{1}{2} + \frac{\sqrt{?}}{12} = 50$

$\approx \frac{\sqrt{?}}{12} = 50 - \frac{99}{2}$

$\approx \frac{\sqrt{?}}{12} = \frac{1}{2}$

$\approx ? = 36$

33.(2) $\approx 1 + \left(\frac{1}{2}\right)^2 + \left(\frac{100}{8}\right)^2 = (?)^2 - 12$

$\approx \frac{5}{4} + \frac{10000}{64} = (?)^2 - 12$

$\approx \frac{10080}{64} = (?)^2 - 12$

$\approx 169.5 = (?)^2$

$\approx ? = 13$

34.(4) $\approx \frac{100}{3} + \frac{200}{3} + 900 = \frac{(?)^{\frac{1}{2}}}{11} + 989$

$\approx 1000 = \frac{(?)^{\frac{1}{2}}}{11} + 989$

$\approx ? = 121 \times 121 = 14641$

35.(1) $\approx \frac{90}{100} \times 900 + 196 + \frac{?}{4} = 3 \times ? + 16$

$\approx 810 + 196 - 16 = \frac{11}{4} \times ?$

$\approx \frac{990 \times 4}{11} = ?$

≈ 360

36.(4) The series is

$4 \times 2 + 5 = 13$

$13 \times 2 + 5 = 31$

$31 \times 2 + 5 = 67$

$67 \times 2 + 5 = 139$

$139 \times 2 + 5 = \boxed{283}$

37.(5) The series is

$3 \times 1^2 + 2 = 5$

$5 \times 2^2 + 3 = 23$

$23 \times 3^2 + 4 = 211$

$211 \times 4^2 + 5 = \boxed{3381}$

38.(3) The series is

$7 + 1^2 = 8$

$7 + 3^2 = 16$

$7 + 5^2 = 32$

$7 + 7^2 = 56$

$7 + 9^2 = 88$

$7 + 11^2 = \boxed{128}$

39.(1) The series is

$15 + 4 = 19$

$19 + 4 = 23$

$23 + 14 = 37$

$37 + 14 = 51$

$51 + 24 = 75$

$75 + 24 = 99$

$99 + 34 = 133$

$133 + 34 = \boxed{167}$

40.(5) The series is

$6 \times 1.5 = 9$

$9 \times 2 = 18$

$18 \times 2.5 = 45$

$45 \times 3 = 135$

$135 \times 3.5 = 472.5$

41.(3) In 30 min, increased time = 3 min.

In 1 hr, increased time = 6 min

In 6 hr, increased time = 36 min

Required time = 11 : 36 a.m.

42.(1) Let original No. be $(10x + y)$

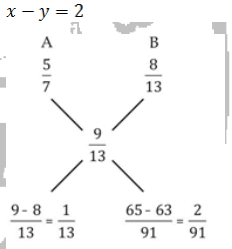
$\therefore 10x + y - (10y + x) = 18$

$10x + y - 10y - x = 18$

$9x - 9y = 18$

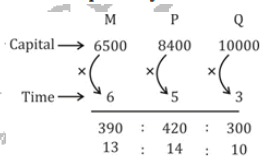
$x - y = 2$

43.(1)



Ratio of quantity = 7 : 2

44.(1)



M's extra share on working partner

$= 7400 \times \frac{5}{100} = \text{Rs. } 370$

Remaining profit = Rs. 7400 – 370 = Rs. 7030

37 units = 7030

1 units = $\frac{7030}{37}$

Profit of Q = $\frac{7030}{37} \times 10 = \text{Rs. } 1900$

45.(3) Probability $= \frac{2c_1 \times 3c_2 + 2c_2 \times 3c_1}{5c_3}$

$= \frac{2 \times 3 + 1 \times 3}{10}$

$= \frac{9}{10}$

46.(2) Total persons who have not voted from A and C together

$= 12 \times 200 + 20 \times 160 = 5600$

Total males who have voted from these villages

$= \frac{88}{100} \times 20{,}000 \times \frac{60}{100} + \frac{80}{100} \times 16000 \times \frac{55}{100}$

$= 10560 + 7040$

$= 17600$

Required percentage $= \frac{5600}{17600} \times 100 = 31\frac{9}{11}\%$

47.(2) $$\text{Required ratio} = \frac{\frac{90}{100}\times 13500\times\frac{70}{100}+\frac{92}{100}\times 22500\times\frac{60}{100}}{\frac{90}{100}\times 13500\times\frac{30}{100}+\frac{92}{100}\times 22500\times\frac{40}{100}}$$
$$=\frac{8505+12420}{3645+8280}=\frac{20925}{11925}$$
$$=\frac{93}{53}$$

48.(5) Required difference
$$=\left(\frac{88}{100}\times 20000\times\frac{60}{100}-\frac{90}{100}\times 13500\times\frac{30}{100}\right)$$
= 10560 – 3645 = 6915.

49.(1) $$\text{Total males who voted} = \frac{80}{100}\times 16000\times\frac{55}{100}=7040$$
$$\text{Total females who voted} = \frac{80}{100}\times 16000\times\frac{45}{100}=5760$$
$$\text{Total male voters} = 7040+\frac{20}{100}\times 16000\times\frac{5}{8}=9040$$
$$\text{Total female voters} = 5760+\left(\frac{20}{100}\times 16000\times\frac{3}{8}\right)=6960$$
$$\text{Required ratio} = \frac{9040}{6960}=\frac{113}{87}$$

50.(3) $$\text{Required average} = \frac{12\times 200+20\times 160+10\times 135}{3}$$
$$=\frac{2400+3200+1350}{3}=2316\frac{2}{3}.$$

51.(5) $$\text{Required \%} = \frac{175}{175+275+300}\times 100$$
$$=\frac{175}{750}\times 100$$
$$=23\frac{1}{3}$$

52.(4) Required No. of people = 375 + 400 + 300 + 200 + 250 + 275 = 1800

53.(3) Required difference = 275 – 175 = 100

54.(2) Required Ratio = 375 : 325 = 75 : 65 = 15 : 13.

55.(1) Required No. of people = 2050 millions

56.(1) I. $3x^2-15x-8x+40=0$
$3x(x-5)-8(x-5)=0$
$x=\frac{8}{3},5$
II. $2y^2-23y+66=0$
$2y^2-12y-11y+66=0$
$2y(y-6)-11(y-6)=0$
$y=6,\frac{11}{2}$
$x<y$

57.(5) I. $x^2-14x-5x+70=0$
$x(x-14)-5(x-14)=0$
$x=5,14$
II. $2y^2-10y-7y+35=0$
$2y(y-5)-7(y-5)=0$
$y=5,\frac{7}{2}$
$x\geq y$

58.(5) I. $2x^2-4x-\sqrt{13}x+2\sqrt{13}=0$
$2x(x-2)-\sqrt{13}(x-2)=0$
$x=\frac{\sqrt{13}}{2},2$
II. $10y^2-18y-5\sqrt{13}y+9\sqrt{13}=0$
$2y(5y-9)-\sqrt{13}(5y-9)=0$
$y=\frac{\sqrt{13}}{2},\frac{9}{5}$

59.(2) I. $x=22,-22$
II. $y^2-22y-23y+506=0$
$y(y-22)-23(y-22)=0$
$y=22,23$
$x\leq y$

60.(1) I. $x-4\sqrt{3x}-3\sqrt{3x}+36=0$
$\sqrt{x}(\sqrt{x}-4\sqrt{3})-3\sqrt{3}(\sqrt{x}-4\sqrt{3})=0$
$\sqrt{x}=3\sqrt{3},4\sqrt{3}$
$x=27,48$
II. $y-7\sqrt{2y}-5\sqrt{2y}+70=0$
$\sqrt{y}(\sqrt{y}-7\sqrt{2})-5\sqrt{2}(\sqrt{y}-7\sqrt{2})=0$
$\sqrt{y}=7\sqrt{2},5\sqrt{2}$
$y=98,50, x<y$

61.(1) Let value of first and second cycle be x & y respectively
Condition I
$96+x=2y$ ... (i)
Condition II
$96+y+306=x$ ... (ii)
Solving (i) & (ii)
$x=900$

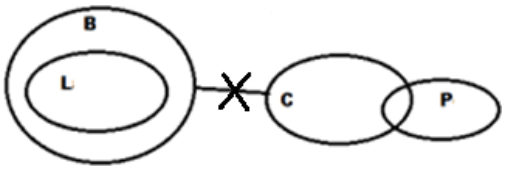
62.(1) Let total amount lend by RBI =x
Interest given by SBI to RBI = $\frac{40}{100}x = .4x$
Interest earned by SBI = 44% of x = .44x
Percentage earning of SBI $=\frac{.44x-.4x}{x}\times 100=4\%$

63.(4) Let elder sister get x Rs.
The younger sister got = $(61000-x)$Rs
According to question
$$x\left(1+\frac{20}{100}\right)^2=(61000-x)\left(1+\frac{20}{100}\right)^4$$
$$\frac{x}{61000-x}=\frac{6}{5}\times\frac{6}{5}$$
$25x=36\times 61000-36x$
$61x=36\times 61000$
$x=36000$
Younger's share $=61000-36000=25{,}000$

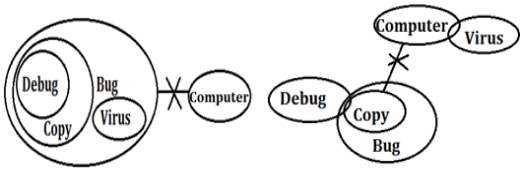
64.(4) Let the tap A is on for x hours
According to question
$$\frac{x}{10}+\frac{4}{20}+\frac{2}{25}=1$$
$$\Rightarrow\frac{10x+20+8}{100}=1$$
$$x=\frac{72}{10}=7.2\ hrs$$
As, In 10 hours, A can do 100% work
Hence, in 7.2 hours, A 'll do 72% work.

65.(4) Let the stream of current be = x km/hr
So,
Condition I
$$\frac{10}{3+x}+8=\frac{10}{3-x}$$
$$\frac{8}{10}=\frac{3+x-3+x}{(3-x)(3+x)}$$
$2x^2+5x-18=0$
$x=2,-\frac{9}{2}$
Condition II
Let new actual speed = y km/h
$$\frac{10}{y+2}=1+\frac{2}{3}$$
$$\frac{10}{y+2}=\frac{5}{3}$$
$30=5y+10$
$y=4$ km/h

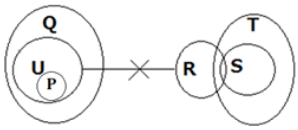
66.(3)



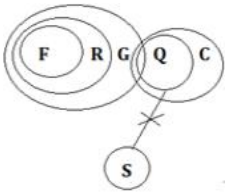
67.(3)



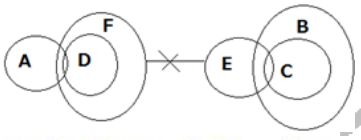
68.(4)



69.(1)



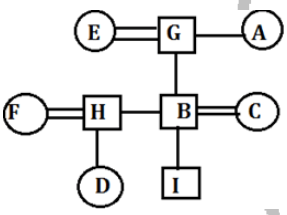
70.(4)



71-75.

71.(2) 72.(2) 73.(4) 74.(2) 75.(4)

76-77.



76.(2) 77.(3)

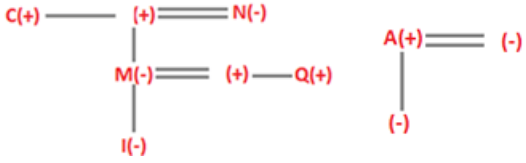
78.(4) $Y \geq Z < Q = J = U \leq I < X$

79.(1) After interchanging the position, Raman position will be 8th from right end and his position is given from left end that is 20th.
Hence total number of persons in a row= 20+8-1= 27 persons
Boys and girls ration is given 6 : 3
Let boys= 6x and girls = 3x
6x + 3x = 27, hence x = 3
Boys = 18, girls = 9.

80.(3)

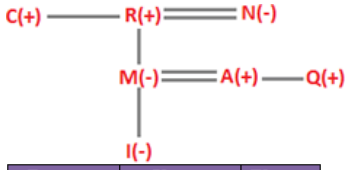
81-85. From the given conditions, first we try to complete blood-relation tree. M's husband works with M's father. M's daughter lives on First floor. C is brother-in-law of N and Q is brother of one of the married male person of the family. M's brother-in-law works with M's uncle. Only A's wife works in the 'Pantaloons' shop. M's mother is in the same shop as A's daughter. I's maternal grandfather lives on Fourth floor.

Blood relation tree-



From the given conditions, M's husband works with M's father in the Cantabile shop and does not live on Fifth floor. Only A's wife works in the 'Pantaloons' shop. If A is the husband of N, which means only N works in Pantaloons shop. But from the condition, M's mother is in the same shop as A's daughter. Hence N works with M, which is not possible, So A is the husband of M and rest R is the father of M.

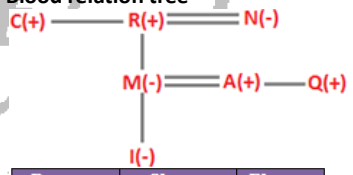
Blood relation tree-



Person	Shops	Floors
A	Cantabile	
Q		
R	Cantabile	
C		
I		
M	Pantaloons	
N		

From the given conditions, M's daughter lives on First floor and does not work in H&M shop. M's mother is in the same shop as A's daughter. M's brother-in-law works with M's uncle in the same shop and lives on Second floor. Hence both works in H&M shop. I's maternal grandfather lives on Fourth floor. The one, who lives on the Third floor, works in the H&M shop. None of the persons, who work in the Cantabile or 'Max' shop, lives on eight floor. M's husband works with M's father and does not live on Fifth floor.

Blood relation tree-



Person	Shops	Floors
A	Cantabile	Seventh
Q	H&M	Second
R	Cantabile	Fourth
C	H&M	Third
I	Max	First
M	Pantaloons	Eight
N	Max	Fifth

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

86-90. It is given that Q and O have birthday in the days which started from the same letter so the days can be Tuesday and Thursday or Saturday and Sunday. There will be four possibilities which can be possible.
(1)When Q has a birthday on Saturday, then O has a birthday on Sunday. It is given that Only one person has a birthday between Q and the one who got watch so the one who got watch has a birthday on Thursday. It is given that R and N have birthdays after the one who got watch, so this arrangement can't be possible.
(2) When Q has a birthday on Sunday, then O has a birthday on Saturday. So the one who got watch has birthday on Friday. Hence this arrangement can't be possible.

Days	Persons	Gifts
Monday		
Tuesday		
Wednesday		
Thursday		Watch
Friday		Watch
Saturday	Q/O	
Sunday	O/Q	

(3)When Q has a birthday on Thursday, O has a birthday on Tuesday. It is given that the one who got chocolate has birthday just before O's birthday so The one who got chocolate has birthday on Monday. There are two persons who have birthdays between R and the one who got chocolate, which can't be possible in this arrangement.

Days	Persons	Gifts
Monday		Chocolate
Tuesday	O	
Wednesday		
Thursday	Q	
Friday		
Saturday		
Sunday		

(4) When Q has a birthday on Tuesday, O has a birthday on Thursday so the one who got chocolates has birthday on Wednesday. There are two persons who have birthday between O and P. The one who got watch has birthday on Thursday. Two persons have birthday between R and the one who got chocolate, so R has a birthday on Saturday. R has birthday before N so N has a birthday on Sunday. L has a birthday on Friday just above the one who got Shirt.

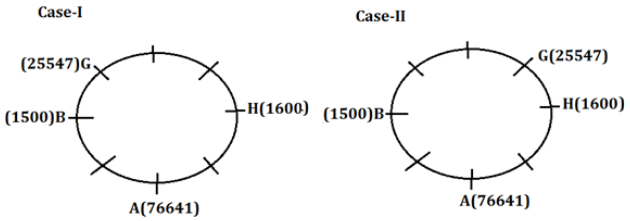
M has a birthday on Wednesday. There are three persons who have birthdays between the ones who got phone and perfume and the one who got phone has birthday on the day which's first letter after the first letter of Friday so P got Phone. L got Perfume. N does not get Dairy so N got wallet and Q got Dairy.

Days	Persons	Gifts
Monday	P	Phone
Tuesday	Q	Dairy
Wednesday	M	Chocolate
Thursday	O	Watch
Friday	L	Perfume
Saturday	R	Shirt
Sunday	N	Wallet

86.(2) 87.(4)
88.(4) 89.(4) 90.(3)

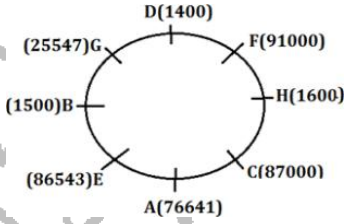
91-95. From the given condition, there is an angle of 90° between A and H. Hence H can sit either 2nd right or 2nd left of A. But the condition is given that, B sits at 90° clockwise direction of A. So H cannot sit 2nd left of A.

From the given conditions - Salary of the one, who sits 2nd to right of B is an odd number, which is divisible by 3. There is only one salary (76641) which is divisible by 3 and also an odd number, so A's salary is 76641. G's salary is 1/3rd of A's salary means G's salary is 25547. There is an angle of 180° between B and the one whose salary is perfect square (1600). There is an angle of 135° between A and G, hence G can sit either 3rd left or 3rd right of A, so we have 2 possible case which are shown below. B's salary is average of H and D's salary, so B's salary is 1500 and D's salary is 1400.



The condition is given that, H is not an immediate neighbor of the one, whose salary is 25547, hence case II will be cancelled out. Only case I will be continued with the rest conditions.

From the remaining conditions- F sits at 135° clockwise direction to B. D is not an immediate neighbor of the one whose salary is 76641. There is an angle of 180° between F and E, whose salary is an odd number. C's salary is 2nd largest salary among all the salaries. We will get the final answer.



91.(1) 92.(4)
93.(3) 94.(5) 95.(2)
96-100.

	A	B	C	D	E	F
Red	✓	✓		✓	✓	✓
Blue		✓	✓		✗	✗
Green			✓	✓	✗	✗
Pink		✓		✓		
Yellow		✗		✗	✓	✓
White	✓	✗	✓	✗		
Grey	✓	✗	✓	✗	✗	✗
Purple					✓	✓

96.(3) 97.(1)
98.(2) 99.(3) 100.(2)