IBPS PO Preliminary Grand Test –IPP-180923

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1.(2) "critiques" is the correct word replacement as it means a detailed analysis and assessment of something, especially a literary, philosophical, or political theory.

2.(4) "standardized" is the correct word replacement as it means cause (something) to conform to a standard.

3.(1) "castigated" is the correct word replacement as it means reprimand (someone) severely. Also, it is to be noted that the sentence is in Passive form.

4.(3) "foresee" is the correct word replacement as it means be aware of beforehand; predict.

5.(5) "models" is the correct word in context of its usage in the sentence. So it doesn't require any correction.

6.(2) "vigorously" is the correct word replacement as it means forcefully.

7.(1) "fad" is the correct word replacement as it means an intense and widely shared enthusiasm for something, especially one that is short-lived; a craze.

8.(3) "impossible" is the correct word replacement as it means very difficult to deal with.

9.(5) "humility" is the correct word in context of its usage in the sentence as it means the quality of having a modest or low view of one's importance.

10.(4) "unconventional" is the correct word replacement as it means not based on or conforming to what is generally done or believed.

11.(3) "greatest gift to mankind, denotes passion or firmness" is the correct set of phrases in context of the sentence structure and subsequent grammar usage.

12.(5) As the sentence is in passive form, "has been keen on having them fitted, being manufactured by" are the correct phrases in context of the sentence structure and grammatical usage. Hence it doesn't require any correction.

13.(1) "to countering terrorism, more excuses to continue living" is the correct set of phrases in context of the sentence structure and subsequent grammar usage.

14.(2) "as in India, rests with the elected" is the correct set of phrases in context of the sentence structure and subsequent grammar usage.

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

16.(1) It is said in the 1st paragraph that they never have seemed to realize the importance of the experiment and author also mentions in the same paragraph that crudeness of their instruments of measurement is just an excuse which makes option (3) incorrect hence option (1) is the correct option.

17.(2) Metamorphosing the problems of physics into the problems of mathematics constitutes the essential characteristic of the Newtonian method and because of which he was considered the greatest scientist.

18.(3) Prior to Newton, mathematics, chiefly in the form of geometry, had been studied as a fine art without any view to its physical applications but Newton's method changed the pattern. Refer to the 3rd paragraph of the passage, "But here again the real significance of Newton's achievement lay not so much in the exact quantitative formulation of the law of attraction, as in his having established the presence of law and order at least in one important realm of nature, namely, in the motions of heavenly bodies"

19.(1) Refer to the 4th paragraph of the passage, "Einstein's special principle, by adding increased emphasis to this relativity of velocity, making absolute velocity metaphysically meaningless,"

20.(4) Option (4) is the correct choice as it best explains the theme of the passage.

21.(4) **Metamorphosed** means change or cause to change completely in form or nature hence stagnant is the word most opposite in meaning.

22.(2) **Resort** means something that one uses to accomplish an end especially when the usual means is not available hence imprudent is the word most opposite in meaning.

23.(4) **Adherent** means someone who supports a particular party, person, or set of ideas hence adversary is the word most opposite in meaning.

24.(3) **Conceived** means form or devise (a plan or idea) in the mind hence contrive is the word most similar in meaning.

25.(1) **Emphasis** means special importance, value, or prominence given to something hence accentuation is the word most similar in meaning.

26.(1) **Accretion** means a thing formed or added by gradual growth or increase.

27.(5) **Emancipation** means the fact or process of being set free from legal, social, or political restrictions; liberation.

28.(2) **Wholesale** means done on a large scale; extensive.

29.(5) All the given options fit into the blanks appropriately as all four words mean the same i.e. so as to give the impression of having a certain quality; apparently.

30.(4) **Meddling** means interfering in something that is not one's concern.

31.(3) Sum of the present age of mother, father and son
$= 42 \times 3 + 6 \times 3 = 126 + 18 = 144$ years.
Sum of present age of the family $= 36 \times 5 = 180$
Present age of the bride $= 180 - 144 - 5 = 31$ years.
Age of the bribe at the time of marriage $= 31 - 6 = 25$ years

32.(1) Let the money in first scheme = Rs. x
Second scheme = Rs. $(35000 - x)$
The principal is
$P = \dfrac{3600 \times 100}{12 \times 2} = $ Rs. 15000
The money in first scheme = Rs. x = Rs. 15000
Scheme B = Rs. (35000 – 15000) = Rs. 20,000
$\Rightarrow$ C.I. $= P\left[\left(1 + \dfrac{R}{100}\right)^2 - 1\right]$
$\Rightarrow 20000\left[\left(1 + \dfrac{10}{100}\right)^2 - 1\right]$
$= $ Rs. 4200

33.(4) Ratio of number of men, women and children
$= \dfrac{18}{6} : \dfrac{10}{5} : \dfrac{2}{3}$
$= 3x : 2x : 4x$
$\Rightarrow (3x + 2x + 4x) = 18$
$\Rightarrow x = 2$
Now, number of women = 4
Share of all women $= \dfrac{10}{40} \times 4000 = $ Rs. 1000
$\therefore$ Share of each women $= \dfrac{1000}{4} = $ Rs. 250

34.(2) When the motorbike reached to the middle point
Distance = 150 m
relative speed $= (70 - 45) = 25$ km/hr
$\therefore$ time $= \dfrac{150}{25 \times 5} \times 18$ sec
$\therefore$ distance covered by motorbike $= \dfrac{150}{25 \times 5} \times 18 \times 70 \times \dfrac{5}{18} = 420$ m
When it reaches exactly middle point of the train after that distance to be covered = 150 m
Relative speed $= (65 - 60) = 5$ km/hr
Time $= \dfrac{150}{5 \times 5} \times 18$
$\therefore$ Distance covered by bike $= \dfrac{150 \times 18}{5 \times 5} \times \dfrac{65 \times 5}{18} = 1950$ m
$\therefore$ Total distance $= 1950 + 420 = 2370$ m
$= 2.37$ km

35.(2) Sum of the ages of 6 children $= 15 \times 6 = 90$
When two children left, sum of the ages of 4 children
$= 90 - (18 + 20) = 52$
Sum of the ages of new children $= (15 + 4) \times 4 = 76$
$\therefore$ Required average $= \dfrac{76+52}{8} = \dfrac{128}{8} = 16$ years

36.(3)
Mohit 30 — 1
Chandra 15 — 2 — 30
Jatin 10 — 3
Total units = 30
According to question
Chandra & Jatin coordinated alternately from next day.
Hence,
First day work $= 1 \times 1 = 1$
Second day work $= (1 + 2) \times 1 = 3$
Third day work $= (1 + 3) \times 1 = 4$
Fourth day work $= (1 + 2) \times 1 = 3$
And so on
At the end of 9th day total work completed
$= 1 + 3 + 4 + 3 + 4 + 3 + 4 + 3 + 4 = 29$
Remaining work $= 30 - 29 = 1$
Total time required $= 9 + \dfrac{1}{3} = 9\dfrac{1}{3}$ days

37.(2) For scripting
Karunesh 24 — 5
Amita 20 — 6 — 120
Jatin 15 — 8
Ist two days → Total unit $= 19 \times 2 = 38$
Last 2 days work $= 6 \times 2 = 12$
Remaining unit $= 120 - 38 - 12 = 70$
Time required to complete 70 unit of work $= \dfrac{70}{(8+6)} = 5$ days
Total days required $= 2 + 2 + 5 = 9$ days

38.(4)
Assessing
Akshay 12 — 2
Chandra 8 — 3 — 24
Total days $= \dfrac{24}{5}$
Scripting
Amita 20 — 3
Jatin 15 — 4 — 60
Total days $= \dfrac{60}{7}$
Required difference $= \dfrac{60}{7} - \dfrac{24}{5} = \dfrac{132}{35} = 3\dfrac{27}{35}$ days

39.(2) Desired ratio $= \dfrac{80}{85} = 16 : 17$.

40.(4)
Programming
Chandra 14 — 10
Amita 35 — 4 — 140
Akshay 20 — 7
Scripting
Jatin 15 — 8
Karunesh 24 — 5 — 120
Mohit 12 — 10
No. of days taken by them to complete the work $= \dfrac{140}{21} = \dfrac{20}{3}$ days
Total days by them to complete the work $= \dfrac{120}{23}$
Difference $= \dfrac{20}{3} - \dfrac{120}{23}$
$= \dfrac{460 - 360}{69} = 1\dfrac{31}{69}$ days

41.(3) Total unsold toys in 2012
$= \dfrac{20}{100} \times 100 + \dfrac{15}{100} \times 141 = 41.15$ thousand

42.(5) Required difference $= 744 - 720 = 24$ thousand

43.(1) Required percentage
$= \dfrac{159 - 78}{78} \times 100 \approx 104\%$

44.(3) Average number of toys in P
$= \dfrac{744}{6} = 124$ thousand
Average number of toys in Q $= \dfrac{720}{6} = 120$
$\therefore$ Required percentage
$= \dfrac{124 - 120}{120} \times 100 = 3\dfrac{1}{3}\%$

45.(4) Cost incurred in manufacturing
= 109000 × 50 = Rs. 54,50,000
S.P of 90% products
$= \frac{90}{100} \times 109000 \times 80 = $ Rs. 78,48,000
∴ Required profit % $= \frac{23,98,000}{54,50,000} \times 100 = 44\%$

46.(2) Let, average scores up to 18th innings = x runs
Total score = 18x runs
19th innings score = 98 runs
New average = (x + 4) runs
Therefore,
18x + 98 = 19(x + 4)
18x + 98 = 19x + 76
∴ x = 22 runs
∴ Average score after 19th innings = x + 4 = 26 runs

47.(1) (10 days) A ↘ +3
⟍ 30 unit = Rs 450
(15 days) B ↗ +2   1 = Rs 15
5(A + B) → 5 × 5 = 25 unit
C → 30 – 25 = 5 unit
A $\xrightarrow{work}$ 3 × 5 = 15 unit = 15 × 15 = Rs. 225
B $\xrightarrow{work}$ 2 × 5 = 10 unit = 15 × 10 = Rs.150
C $\xrightarrow{work}$ 5 unit = 5 × 15 = Rs.75

48.(4) Let Amit's speed = x km/hr
& Suresh's speed = y km/hr
ATQ,
$\frac{30}{x} - \frac{30}{y} = 2$
$\frac{30}{2x} - \frac{30}{y} = -1$
x = 5 ⇒ Amit's speed = 5 km/hr

49.(3) Profit = Time × Capital invested
$Time = \frac{Profit}{Capital\ invested}$
Required ratio of time $= \frac{5}{5} : \frac{3}{6} : \frac{12}{8}$
$= 1 : \frac{1}{2} : \frac{3}{2}$
= 2 : 1 : 3

50.(2) Required probability $= \frac{9_{C_2}}{20_{C_2}} = \frac{9 \times 8}{20 \times 19} = \frac{18}{95}$

51.(4) Total expenditure of soha
$= \frac{100}{65} \times 7800 = $ Rs 12000
∴ Total annual salary
$= \frac{11}{6} \times 12000 \times 12 = $ Rs 2,64,000

52.(3) Total expenditure of Suchi
$= \frac{100}{42} \times 4200 = $ Rs 10,000
∴ Savings of Suchi
= 22000 – 10000 = Rs 12,000
Total expenditure of Meenu
$= \frac{100}{60} \times 7200 = $ Rs 12000
∴ Savings of Meenu
= 26000 – 12000 = Rs 14000
So, required difference = Rs 2000

53.(2) Expenditure of Ruhi on rent
$= \frac{22}{100} \times \frac{9}{14} \times 28000 = $ Rs 3960
Expenditure of Meenu on food
$= \frac{25}{60} \times 7200 = $ Rs 3000
∴ Required percentage
$= \frac{3960}{3000} \times 100 = 132\%$

54.(5) Savings of Ruhi
$= \frac{5}{14} \times 28000 = $ Rs 10000
Savings of Teena
$= \frac{8}{9} \times 18000 = $ Rs 16000
∴ Required percentage
$= \frac{6000}{16000} \times 100 = 37.5\%$

55.(2) Required average
$= \frac{1}{3}(22000 + 22000 + 34000) = $ Rs.26000.

56.(5) $x = \frac{9}{4}, -\frac{2}{3}$
$y = \frac{2}{5}, -\frac{4}{3}$
∴ No relation can be established.

57.(2) $x = \frac{4}{9}, -\frac{1}{3}$
$y = -\frac{1}{3}, -\frac{7}{5}$
∴ $x \geq y$

58.(3) $x = -5, -\frac{10}{3}$
$y = -3, -\frac{4}{7}$
∴ $y > x$

59.(5) $x = 12, 14$
$y = 11, 15$
∴ No relation can be established

60.(4) $x = -\frac{1}{2}, \frac{7}{3}$
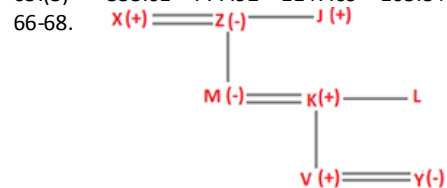$y = \frac{7}{3}, \frac{5}{2}$
∴ $y \geq x$

61.(2) $107 \times 79 - (54)^2 = \sqrt{?} + 5476$
$8453 - 2916 - 5476 = \sqrt{?}$
$\sqrt{?} = 61$
? = 3721

62.(3) $24 \times 8 + 21 \times 8 + 8 \times 8 + 7 \times 8 - 98$
= 8(60) – 98
= 480 – 98
= 382

63.(1) 1021585 – 18611 – 5883 = 997091.

64.(2) $\frac{3}{11} + \frac{39}{44} + \frac{5}{22} = \frac{12 + 39 + 10}{44} = \frac{61}{44} = 1\frac{17}{44}$

65.(3) 533.61 + 777.92 – 1147.69 = 163.84

66-68.

66.(5)   **67.(2)**   **68.(2)**

69.(4)

70.(2)

71-75. From the given conditions, four persons attend dancing class between L and B. Either L or B attends dancing class on either morning of the first day or evening of the last day. I attends dancing class on Wednesday morning. Q attends dancing class one day before B, but not in morning. Hence L attends dancing class on either Tuesday morning or Friday morning. And L attends dancing class before Q; B does not attend dancing class on Friday morning.

Case-I

Days↓ Time→	10a.m	4p.m
Tuesday	L	
Wednesday	I	Q
Thursday		B
Friday		
Saturday		
Sunday		

Case-II

Days↓ Time→	10a.m	4p.m
Tuesday		
Wednesday	I	
Thursday		
Friday	L	
Saturday		Q
Sunday		B

From the given conditions, W attends dancing class immediate before the person, who attends the dancing class on Sunday evening; hence W attends dancing class on Sunday morning. Two days gap between M and B and M attends dancing class on 10 a.m., hence Case-I is eliminated. Now, Case-II is continued.

From the given conditions, two classes are held between Y and M; hence Y is either Friday evening or Tuesday evening. Number of person attends dancing class between M and E is same as Q and Z. J does not attend class immediate before Y. K attends dancing class after M. E attends dancing class before Z.

Case-II

Days↓ Time→	10a.m	4p.m
Tuesday	E	Y
Wednesday	I	S
Thursday	M	Z
Friday	L	K
Saturday	J	Q
Sunday	W	B

From the given conditions, S and K attend dancing class on same time.

Days↓ Time→	10a.m	4p.m
Tuesday	E	Y
Wednesday	I	S
Thursday	M	Z
Friday	L	K
Saturday	J	Q
Sunday	W	B

71.(1)   **72.(3)**
73.(4)   **74.(5)**   **75.(4)**
76-77.

76.(2)   **77.(4)**
78.(5)
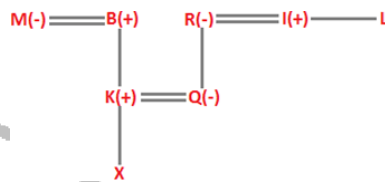
79.(2)
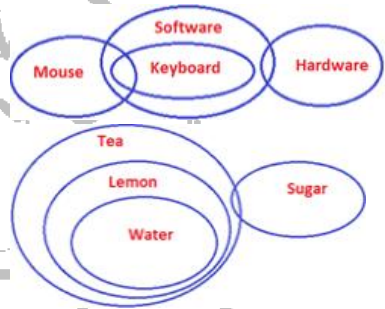
80.(2)

81-85.
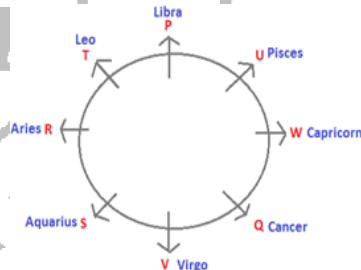
Tree Form (Blood-Relation)-

81.(1)   **82.(3)**
83.(5)   **84.(1)**   **85.(3)**
86.(3)
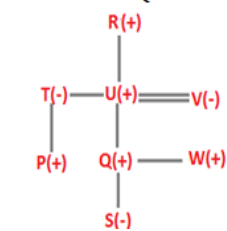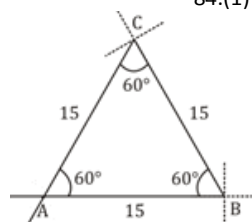
87.(5)   B < H ≤ J > S = K ≥ G

88.(3)   This coding decoding question is based on the new pattern. In this, question the words are coded as per following rules.
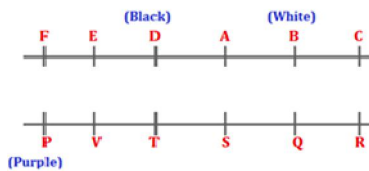
(i) First element of code is numerical value of no. of letter with addition of one.

(ii) Second element of the code is opposite letter of the first letter of the given word in alphabetical series.

(iii)Also third element of a code is opposite letter of the last letter of the given word in alphabetical series.
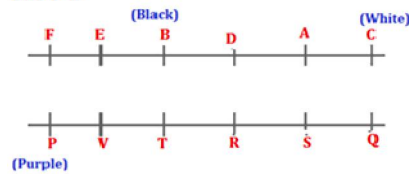
89.(4)   ' **125533 15 1**557'

90.(4)

91-95.   From the given conditions, Q is on the immediate right of S, who is facing A, who sits immediate right of the person, who likes White colour. D is on the immediate right of A. P, F and C are at extreme ends and nobody is seated on the right of F. Only V is seated between P, who likes Purple colour and T, who faces the person, who likes Black colour and he is not facing B. From those conditions we have 2 cases.

Case-1

```
       (Black)        (White)
  F    E    D    A    B    C
  |----|----|----|----|----|
```

```
  P    V    T    S    Q    R
  |----|----|----|----|----|
(Purple)
```

Case-2

```
            (Black)           (White)
  F    E    B    D    A    C
  |----|----|----|----|----|
```

```
  P    V    T    R    S    Q
  |----|----|----|----|----|
(Purple)
```

From the rest condition, Q is on the immediate left of R. Hence Case-2 is eliminated and Case-1 is continued. The person, who likes Orange colour, sits immediate left of B. The person, who likes Yellow colour, sits diagonally opposite the person, who likes Red colour. The person, who likes Pink colour, sits second to the right of the person, who likes Green colour. A does not like Blue colour. Hence A likes Brown colour and V likes Blue colour.

The Final arrangement are-

```
(Yellow/Red)  (Black)  (Brown)  (White)  (Orange)
    F          E         D        A         B         C
    |----------|---------|--------|---------|---------|
```

```
    P          V         T        S         Q         R
    |----------|---------|--------|---------|---------|
 (Purple)   (Blue)   (Green)            (Pink)   (Yellow/Red)
```

91.(4)   92.(2)

93.(4)   94.(2)   95.(4)

96-100. From the given conditions, Either F's or A's salary is Rs19898 and both of them work in TCS. Only those persons whose salary is the least and the second least work in Google, hence only those person whose salary is Rs2436 and Rs3624 works in Google. B's salary is more than C's salary and they work in the same company and no other person work in this company. B's salary is the third highest, hence B's salary is 8697 and C's salary is less than Rs8697 also B and C works in Microsoft.

Person	Salary	Company
A		TCS
B	8697	Microsoft
C		Microsoft
	2436	Google
F		TCS
	3624	Google

Now from the rest conditions, E does not work in Google. Hence E works only in TCS. And the rest D and G works in Google, but D's salary is not Rs3624. Hence G's salary is 3624 and D's salary is 2436. Neither E's nor F's salary is the highest. Hence A's salary is Highest. Either F's or A's salary is Rs19898, hence Fs salary is 19898. C's and E's salary is either Rs6734 or 4537.

The final arrangement are-

Person	Salary	Company
A	28116	TCS
B	8697	Microsoft
C	6734/4537	Microsoft
D	2436	Google
E	4537/6734	TCS
F	19898	TCS
G	3624	Google

96.(3)   97.(3)

98.(3)   99.(1)   100.(5)