

IBPS PO PRELIMINARY GRAND TEST :
IPP-170633 - HINTS AND SOLUTIONS

ANSWER KEY

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

21. It should be 'concern'. Here, a noun is required.
 22. All words are correct.
 23. The correct spelling is 'radical'.
 24. The correct spelling is 'squad'.
 25. The appropriate word would be 'reliable'. Here, an adjective is required.
 26. Take the bull by the horns means 'to face a difficult or dangerous situation directly and with courage'.
 27. Put oil over troubled waters means 'to calm down the situation'.
 28. Casting pearls before swine means 'to give or offer valuable things to people who do not understand their value'.
 29. Eat a humble pie means 'to say and show that you are sorry for a mistake that you made'.
 30. Lock, stock and barrels means 'including everything'.

31. (5) $188.21 - 27.54 - 11.93 = 118.21 - 39.47 = 148.74$.
 32. (5) $(2^3)^{1.1} + (2^2)^{2.7} \times 2^{3.3} = 2^?$
 $\Rightarrow (2)^{3.3+5.4+3.3} = 2^? \Rightarrow ? = 12$
 33. (5) $\sqrt[3]{1331} = (11 \times 11 \times 11)^{1/3} = 11^{3 \times \frac{1}{3}} = 11$
 34. (2) $\frac{185}{10 \times 100} \times 220 + \frac{124}{10 \times 100} \times 680$
 $= 40.70 + 84.32 = 125.02$
 35. (1) Total funds acquired by school NGO
 $= \frac{15}{100} \times 500 = 75$ lakh
 Total funds acquired by internal source
 $= \frac{5}{100} \times 500 = 25$ lakhs
 Difference = $75 - 25 = 50$ lakhs
 36. (5) Total fund from government agencies
 $= \frac{45}{100} \times 500 = 225$ lakhs
 School maintenance = 20%
 $\Rightarrow \frac{20}{100} \times 225 = 45$ lakhs
 Left amount for other use = 180 lakhs.
 $\frac{15}{100} \times 500 = \frac{75}{175} \times 100 = 42.8 \approx 43$
 37. (1) $\frac{15}{35} \times 500 = \frac{75}{175} \times 100 = 42.8 \approx 43$
 38. (3) For payment = $\frac{30}{100} \times 500 = 150$ lakh
 39. (4) Fund acquired by government agencies
 $= \frac{45}{100} \times 500 = 225$ lakh
 40. (3) Total televisions manufactured by Company A
 $= (30 + 35 + 35 + 40 + 45 + 55)$ Thousand
 $= 240$ thousand = 2.40 lakh
 Hence, colour televisions manufactured by Company
 $A = \frac{2.40 \times 75}{100}$ lakh = 1.8 lakh = 180000
 41. (5) Required expenditure
 $= ₹ (12000 \times 35000) = ₹ 42$ crore
 42. (1) Required increase percentage
 $= \frac{10}{25} \times 100 = 40\%$
 43. (4) Required average
 $= \left(\frac{25 + 30 + 45 + 40 + 55 + 50}{6} \right)$ thousand
 $= \left(\frac{245}{6} \right)$ thousand = 40834 (approx.)

44. (5) I. $x^2 - x - 12 = 0$
 $\Rightarrow x^2 - 4x + 3x - 12 = 0$
 $\Rightarrow x(x - 4) + 3(x - 4) = 0$
 $\Rightarrow x = -3, 4$

II. $y^2 + 5y + 6 = 0$
 $\Rightarrow y^2 + 2y + 3y + 6 = 0$
 $\Rightarrow y(y + 2) + 3(y + 2) = 0$
 $\Rightarrow y = -2, -3$
 $\therefore x \geq y$

45. (1) I. $x^2 - 8x - 15 = 0$
 $\Rightarrow x^2 - 5x - 3x - 15 = 0$
 $\Rightarrow x(x - 5) - 3(x - 5) = 0$
 $\Rightarrow x = 5, 3$

II. $y^2 - 3y + 2 = 0$
 $\Rightarrow y^2 - 2y - y + 2 = 0$
 $\Rightarrow y(y - 2) - 1(y - 2) = 0$
 $\Rightarrow y = 2, 1$
 $\therefore x > y$

46. (3) I. $x^2 - 32 = 112$
 $\Rightarrow x^2 = 144$
 $\Rightarrow x = \pm 12$

II. $y - \sqrt{169} = 0$
 $\Rightarrow y = \sqrt{169} \Rightarrow y = 13$
 $\therefore x < y$

47. (2) I. $x - \sqrt{121} = 0$
 $\Rightarrow x = \sqrt{121} \Rightarrow x = 11$

II. $y^2 - 121 = 0$
 $\Rightarrow y^2 = 121$
 $\Rightarrow y = \sqrt{121} = \pm 11$
 $\therefore x > y$

48. Suppose the number of sweets is = x

$$\therefore \frac{x}{450-150} - \frac{x}{450} = 3$$

$$\Rightarrow \frac{x}{300} - \frac{x}{450} = 3 \Rightarrow \frac{3x - 2x}{900} = 3$$

$$\Rightarrow x = 2700$$

$$\text{Number of sweets to each children} = \frac{2700}{300} = 9$$

49. Males : Females : Children = $6 \times 12 : 8 \times 18 : 18 \times 10$
 $= 72 : 144 : 180 = 2 : 4 : 5$
 So, 2 Males = 4 Females = 5 Children
 4 Males + 12 Females + 20 Children = $4 + 6 + 8 = 18$ Males
 \therefore 6 males finished 1 work in 12 days.
 \therefore 18 males' 1 work = $\frac{12 \times 6}{18} = 4$ days

$$\text{Work in 2 days} = \frac{2}{4} = \frac{1}{2}$$

Rest work will finished in a day by = $18 \times 2 = 36$ males

50. TRUST

$$\text{Whereas T comes two times} = \frac{5!}{2!} = \frac{5 \times 4 \times 3 \times 2 \times 1}{2!} = 60$$

51. $CI = 45400 \left\{ \left(1 + \frac{15}{100} \right)^2 - 1 \right\}$
 $= 45400 \left\{ \left(\frac{23}{20} \right)^2 - 1 \right\} = 45400 \{ 1.3225 - 1 \}$
 $= 45400 \times 0.3225 = \text{Rs. } 14641.5$

52. Speed = $\frac{320 \times 2}{80} = 8 \text{ m/s}$

53. Cost of one apple = ₹ 25
 \therefore Cost of 12 apples = $25 \times 12 = ₹ 300$
 Amount paid = ₹ 250
 Discount = $300 - 250 = ₹ 50$

$$\text{Discount percent} = \frac{50 \times 100}{300} = 17\% \text{ approx.}$$

54. Probability to be a blue = $\frac{{}^3C_3}{{}^7C_3}$

$$\text{Probability to be a red} = \frac{{}^4C_3}{{}^7C_3}$$

$$\text{Required probability} = \frac{{}^3C_3}{{}^7C_3} + \frac{{}^4C_3}{{}^7C_3} = \frac{5}{35} = \frac{1}{7}$$

55. $\frac{V}{S} = \frac{14}{17}$

$$\therefore V = \frac{14S}{17}$$

$$\text{Again, } \frac{V+6}{S+6} = \frac{17}{20} \Rightarrow 20V + 120 = 17S + 102$$

$$\Rightarrow 20 \times \frac{14S}{17} + 120 = 17S + 102$$

$$\Rightarrow \frac{280s}{17} + 120 = 17s + 102$$

$$\Rightarrow 120 - 102 = \frac{17s - 280s}{17} \Rightarrow 18 = \frac{289S - 280S}{17}$$

$$\therefore S = \frac{18 \times 17}{9} = 34$$

56. $\pi r^2 = 32378.5 \Rightarrow r^2 = \frac{32378.5 \times 7}{22}$

$$\Rightarrow r^2 = 10302.25 \Rightarrow r = 101.5$$

$$\therefore 2\pi r = 2 \times \frac{22}{7} \times 101.5 = 638$$

Cost of fencing = $638 \times 154 = \text{₹ } 98252$

57. Time taken = $2 \times 2 \times 2 \times 3 \times 3 \times 4 = 288 \text{ s}$

2	18, 24, 32
2	9, 12, 16
2	9, 6, 8
2	9, 3, 4
	3, 1, 4

58. (5)
$$\begin{array}{cccccc} 3 & 52 & 88 & 113 & 129 & 138 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +7^2 & +6^2 & +5^2 & +4^2 & +3^2 & \end{array}$$

 $\Rightarrow 129 + 3^2 = 138$

59. (3)
$$\begin{array}{cccccc} 2 & 3 & 8 & 27 & 112 & 565 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 1+1 & \times 2+2 & \times 3+3 & \times 4+4 & \times 5+5 & \end{array}$$

 $\Rightarrow 8 \times 3 + 3 = 24 + 3 = 27$

60. (1)
$$\begin{array}{cccccc} 6 & 4 & 8 & 23 & 84.5 & 385.25 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 0.5+1 & \times 1.5+2 & \times 2.5+3 & \times 3.5+4 & \times 4.5+5 & \end{array}$$

 $\Rightarrow 23 \times 3.5 + 4 = 84.5$

61. (4)
$$\begin{array}{cccccc} 8 & 64 & 216 & 512 & 1000 & 1728 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 2^3 & 4^3 & 6^3 & 8^3 & 10^3 & 12^3 \end{array}$$

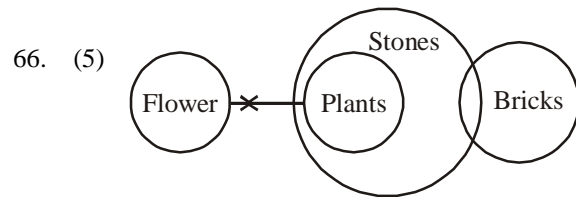
 $\Rightarrow 10^3 = 1000$

62. (4) $9228.789 - 5021.832 + 1496.989 = ?$
 $\Rightarrow 9229 - 5022 + 1497 \approx ?$
 $\Rightarrow 10726 - 5022 \approx ? \Rightarrow 5704 \approx ? \Rightarrow 5700 \approx ?$

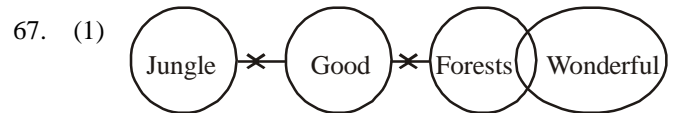
63. (1) $1002 \div 49 \times 99 - 1299 = ?$
 $\Rightarrow \frac{1002}{49} \times 99 - 1299 = ? \Rightarrow \frac{1000}{50} \times 100 - 1300 = ?$
 $\Rightarrow 700 \approx ?$

64. (4) $29.8\% \text{ of } 260 + 60.01\% \text{ of } 510 - 103.57 = ?$
 $\Rightarrow 30\% \text{ of } 260 + 60\% \text{ of } 510 - 104 = ?$
 $\Rightarrow \frac{30}{100} \times 260 + \frac{60}{100} \times 510 - 104 \approx ?$
 $\Rightarrow 78 + 306 \approx ? \Rightarrow 384 - 104 \approx ? \Rightarrow 280 \approx ?$

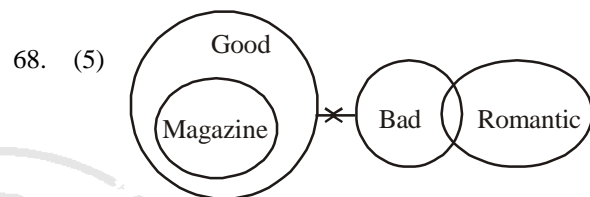
65. (1) $(21.98)^2 - (25.02)^2 + (13.03)^2 = ?$
 $\Rightarrow (22)^2 - (25)^2 + (13)^2 \approx ?$
 $\Rightarrow 484 - 625 + 169 \approx ? \Rightarrow 653 - 625 \approx ?$
 $\Rightarrow 28 \approx ? \Rightarrow 25 \approx ?$



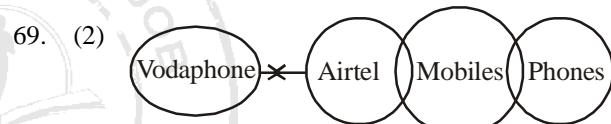
Conclusions : I. ✗ II. ✓ (or) III. ✓
IV. ✓



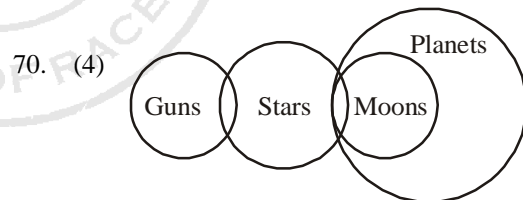
Conclusions : I. ✗ II. ✓
III. ✓ (or) IV. ✓



Conclusions : I. ✓ II. ✗
III. ✓ IV. ✓

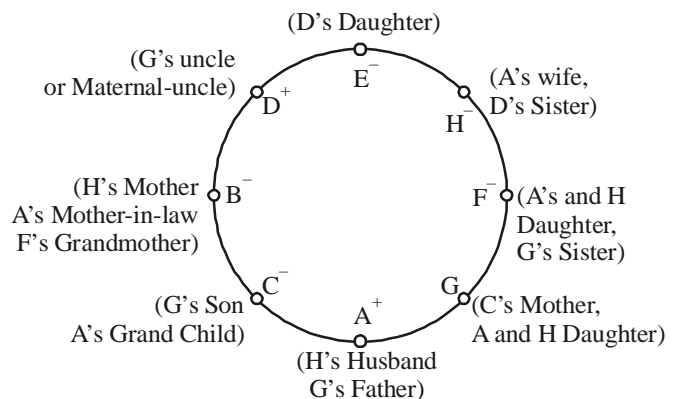


Conclusions : I. ✓ (or) III. ✓
II. ✗ IV. ✓



Conclusions : I. ✗ II. ✗
III. ✗ IV. ✓

71-75. Eight persons sitting arrangement are as follows.



+ \Rightarrow Male - \Rightarrow Female

71. (4) A's mother – in – law is B and A is second to the right of B.
 72. (3) D's daughter is E.
 73. (1) A's grandchild is C and A is immediate right of B.
 74. (3) G's uncle is D and three peoples (either clockwise or anti-clockwise) are sitting between G and her uncle.
 75. (2) Except C all others are women.

76-80.	© → ≤	\$ → >
	* → ≥	@ → =
	% → <	

76. **Statements:** $J \$ D \Rightarrow J > D$,
 $D \textcircled{C} K \Rightarrow D \leq K$,
 $K \% R \Rightarrow K < R$
 $\therefore J > D \leq K < R$

- Conclusions** I. $R \$ J \Rightarrow R > J$ (False)
 II. $R \$ D \Rightarrow R > D$ (True)
 III. $K \$ J \Rightarrow K > J$ (False)

\therefore Only II is true

77. **Statements** $M * K \Rightarrow M \geq K$.
 $K @ R \Rightarrow K = R$,
 $R \% N \Rightarrow R < N$
 $\therefore M \geq K = R < N$

- Conclusions** I. $R \% M \Rightarrow R < M$ (True)
 II. $R @ M \Rightarrow R = M$ (True),
 III. $N \$ K \Rightarrow N > K$ (True)

\therefore Only III and either I or II are true.

78. **Statements:** $B \% H \Rightarrow B < H$,
 $H \$ J \Rightarrow H > J$,
 $J * M \Rightarrow J \geq M$
 $\therefore B < H > J \geq M$

- Conclusions** I. $B \% J \Rightarrow B < J$ (False)
 II. $M \% B \Rightarrow M < B$ (False)
 III. $H \$ M \Rightarrow H > M$ (True)

\therefore Only III is true.

79. **Statements:** $Z \textcircled{C} K \Rightarrow Z \leq K$,
 $K \% E \Rightarrow K < E$,
 $E @ R \Rightarrow E = R$
 $\therefore Z \leq K < E = R$

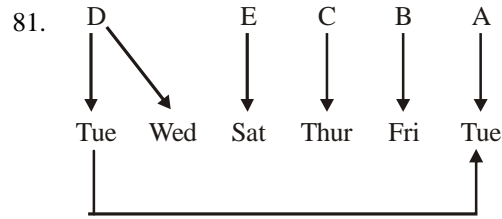
- Conclusions** I. $R \$ K \Rightarrow R > K$ (True)
 II. $Z \% E \Rightarrow Z < E$ (True)
 III. $R \$ Z \Rightarrow R > Z$ (True)

\therefore All are true.

80. **Statements** $W @ M \Rightarrow W = M$,
 $M \textcircled{C} R \Rightarrow M < R$,
 $R \$ F \Rightarrow R > F$
 $\therefore W = M < R > F$

- Conclusions** I. $F \% M \Rightarrow F < M$ (False)
 II. $R * W \Rightarrow R \geq W$ (True)
 III. $W \% F \Rightarrow W < F$ (False)

\therefore Only II is true.



So, D = Wednesday
 E = Saturday
 C = Thursday
 B = Friday
 A = Tuesday

82. No play was organized on Monday.

83. D

84. (i) $M \div K + T = M \leftarrow \text{Sister} \text{---} K \leftarrow \text{Father} \text{---} T$
 M is the aunt of T.

- (ii) $M \times K + T = M \leftarrow \text{Brother} \text{---} K \leftarrow \text{Father} \text{---} T$
 M is the uncle of T.

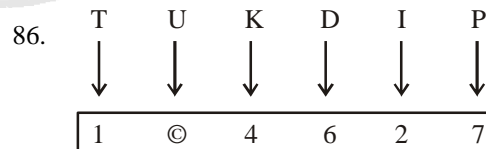
- (iii) $M \times K - T = M \leftarrow \text{Brother} \text{---} K \leftarrow \text{Mother} \text{---} T$
 M is the maternal uncle of T.

85. (i) $H + J + T = H \leftarrow \text{Father} \text{---} J \leftarrow \text{Father} \text{---} T$
 H is the paternal grandfather of T.

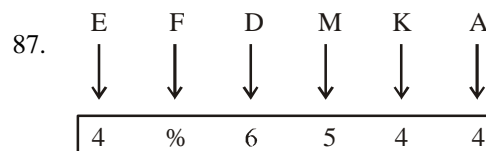
- (ii) $T \times K + H = T \leftarrow \text{Brother} \text{---} K \leftarrow \text{Father} \text{---} H$
 T is the uncle of H

- (iii) $H + J \times T = H \leftarrow \text{Father} \text{---} J \leftarrow \text{Brother} \text{---} T$
 H is the father of T.

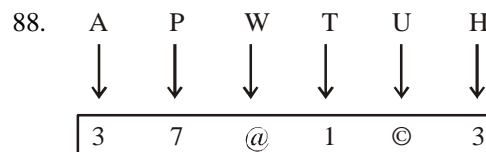
- (iv) $H - J + T = H \leftarrow \text{Mother} \text{---} J \leftarrow \text{Father} \text{---} T$
 H is the paternal grandmother of T.



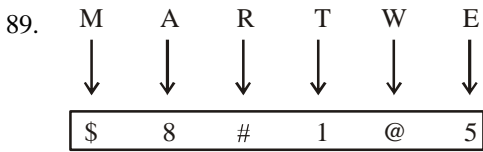
Condition (i) follows.



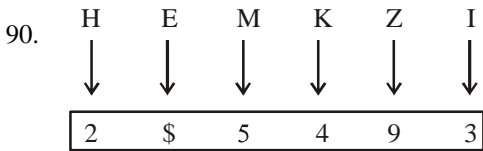
Condition (ii) follows.



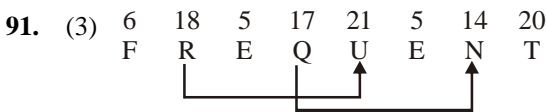
Condition (iii) follows.



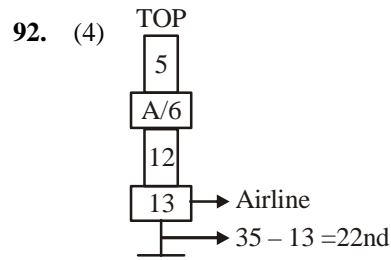
Condition (i) follows.



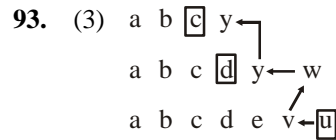
Condition (i) follows.



There are two such pairs RU and QN.



So, the rank of Annie from bottom is 22 + 1 = 23



94. (4) All are the parts of camera.

