

IBPS PO PRELIMINARY GRAND TEST :
IPP-170628 - HINTS AND SOLUTIONS

ANSWER KEY

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

11. Great and regulates are the appropriate words.
12. Jargon and language are the appropriate words.
13. Differed and rude are the appropriate words.
14. Preserve and incapable are the appropriate words.
15. Recognition and report are the appropriate words.

31. Monthly income of Asha = $78000 \times \frac{60}{100} = \text{₹} 46800$

Monthly income of Maya = $46800 \times \frac{100}{120} = \text{₹} 39000$

32. Third number = $924 - (2 \times 201.5 + 2 \times 196)$
 $= 924 - (403 + 392) = 924 - 795 = 129$

33. There are seven letters in the word FINANCE whereas N comes two times.

Required ways = $\frac{7!}{2!} = \frac{7 \times 6 \times 5 \times 4 \times 3 \times 2!}{2!} = 2520$

34. Cost price of watch = $\frac{4080 + 3650}{2!} = \frac{7730}{2} = 3865$

35. Suppose original fraction is $\frac{x}{y}$.

$$\frac{x + \frac{240}{100}x}{y - \frac{50}{100}y} = 2 \frac{5}{6} \Rightarrow \frac{x + 2.4x}{y - 0.5y} = \frac{17}{6} \Rightarrow \frac{3.4x}{0.5y} = \frac{17}{6}$$

$$\therefore \frac{x}{y} = \frac{17}{6} \times \frac{0.5}{3.4} \Rightarrow \frac{x}{y} = \frac{5}{12}$$

36. $M_1 = 12$ children, $D_1 = 21$ days, $D_2 = 15$ days, $M_2 = ?$
 $M_1 D_1 = M_2 D_2$

$$M_2 = \frac{M_1 D_1}{D_2} \Rightarrow M_2 = \frac{12 \times 21}{15} = 16.8 \approx 17$$

37. Total expenditure of Mangesh's monthly income

$$= \frac{17}{100} + \frac{25}{100} + \frac{36}{100} = \frac{17 + 25 + 36}{100} = \text{₹} \frac{78}{100}$$

Annual Income of Mangesh

$$= \frac{10032 \times 12}{\left(1 - \frac{78}{100}\right)} = \frac{10032 \times 12}{\left(\frac{100 - 78}{100}\right)} = \frac{10032 \times 12 \times 100}{22} = \text{₹} 547200$$

38. Suppose larger number is x.

$$x(x - 2) = 3248$$

$$\Rightarrow x^2 - 2x - 3248 = 0$$

$$\Rightarrow x^2 + 56x - 58x - 3248 = 0$$

$$\Rightarrow x(x + 56) - 58(x + 56) = 0$$

$$\Rightarrow (x + 56)(x - 58) = 0$$

$$\Rightarrow x = -56 \text{ or } x = 58$$

39. Actual average marks

$$= \frac{65 \times 150 + 152 - 142}{65} = \frac{9750 + 10}{65} = \frac{9760}{65} = 150.15$$

40. Sum of the next set of five consecutive odd numbers.
 $= (575 + 10 + 10 + 10 + 10 + 10) = 625$

41. (4) $\frac{750 - 550}{550} \times 100 = 27.2 \approx 27\%$

42. (2) Sale of company A in 2009 = 400
Production of company A in 2009 = 550

$$\frac{400}{550} \times 100 = 72.7 \approx 73\%$$

43. (3) Production of company B

$$\text{In 2006} \Rightarrow \frac{4}{5} \times 750 = 600$$

$$\text{In 2007} \Rightarrow \frac{7}{8} \times 800 = 700$$

In 2008 $\Rightarrow \frac{4}{3} \times 600 = 800$

In 2009 $\Rightarrow \frac{12}{11} \times 550 = 600$

In 2010 $\Rightarrow \frac{13}{14} \times 700 = 650$

In 2011 $\Rightarrow \frac{14}{13} \times 650 = 700$

Average = $\frac{600 + 700 + 800 + 600 + 650 + 700}{6} = 675$

44. (5) Total production of A = 4050
Total sale of A = 2750
Ratio = 4050 : 2750 = 81 : 55.

45-49.

	Cricket	Badminton	Tennis	Hockey	Baseball
Women (200)	60	30	22	44	44
Men (600)	140	80	58	176	146
Total (800)	200	110	80	220	190

45. (2) Women Hockey : Men Badminton
 $\Rightarrow 44 : 80 \Rightarrow 11 : 20$

46. (3) $176 + 140 + 146 = 462$.

47. (1) $\frac{44}{176} \times 100 = 25$

48. (5) $146 - 22 = 124$

49. (4) In Cricket, maximum women's are there. And males are minimum in Tennis.

50. (5) Both are red = $\frac{{}^4C_2}{{}^{12}C_2} = \frac{4 \times 3}{12 \times 11} = \frac{1}{11}$

51. (2) $\frac{{}^5C_1 \times {}^7C_2 + {}^5C_2 \times {}^7C_1 + {}^5C_3}{{}^{12}C_3}$

$= \frac{5 \times 21 + 10 \times 7 + 10}{2 \times 11 \times 10}$

$= \frac{105 + 70 + 10}{220} = \frac{185}{220} = \frac{37}{44}$

52. (4) Either green or red = $\frac{{}^3C_3}{{}^{12}C_3} + \frac{{}^4C_3}{{}^{12}C_3}$

$= \frac{1}{220} + \frac{4}{220} = \frac{5}{220} = \frac{1}{44}$

53. (3) M : d = 7 : 1

$\frac{7x - 4}{x - 4} = \frac{19}{1}$

$\Rightarrow 7x - 4 = 19x - 76$

$\Rightarrow 12x = 72 \Rightarrow x = 6$

Mother age after 4 years = 7 (6) + 4 = 42 + 4 = 46

54. $\sqrt[3]{?} = \frac{756 \times 67}{804}$

$\Rightarrow \sqrt[3]{?} = 63$

$\Rightarrow ? = (63)^3 = 250047$

55. $? = 0.3 + 3 + 3.33 + 3.3 + 3.03 + 333 = 9.96 + 336 = 345.96$

56. $? = (73425 - 33267 - 22418 - 17650) \times \sqrt{11025}$
 $= (73425 - 73335) \times \sqrt{11025}$
 $= 90 \times 105 = 9450$

57. $? = (34.12)^2 - \sqrt{7396} = 1164.1744 - 86 = 1078.1744$

58. (2) $\begin{matrix} 9 & 15 & 27 & 51 & 99 & 195 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ \times 2-3 & \times 2-3 & \times 2-3 & \times 2-3 & \times 2-3 & \times 2-3 \end{matrix}$
 $\Rightarrow 99 \times 2 - 3 = 195$

59. (4) $\begin{matrix} 13 & 21 & 36 & 58 & 87 & 123 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +8 & +15 & +22 & +29 & +36 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +7 & +7 & +7 & +7 \end{matrix}$
 $\Rightarrow 87 + 36 = 123$

60. (4) $\begin{matrix} 7 & 9 & 19 & 45 & 95 & 177 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +2 & +10 & +26 & +50 & +82 \\ \uparrow & \uparrow & \uparrow & \uparrow \\ +8 & +16 & +24 & +32 \end{matrix}$
 $\Rightarrow 95 + 82 = 177$

61. (1) $14 + 1^2 = 15$
 $15 + 2^3 = 23$
 $23 + 3^2 = 32$
 $32 + 4^3 = 96$
 $96 + 5^2 = 121$.

62. (2) $\frac{348}{29} \times 15 + 156 = (?)^3 + 120$

$\Rightarrow 216 = (?)^3 \Rightarrow ? = 6$

63. (3) $\frac{(4 \times 4)^3}{(64)^4} \times (32 \times 8)^4 = (4)^{?+4}$

$\Rightarrow \frac{4^6}{4^{12}} \times (8 \times 4 \times 8)^4 = (4)^{?+4}$

$\Rightarrow \frac{4^6 \times 4^{16}}{4^{12}} = (4)^{?+4}$

$\Rightarrow 4^{10} = (4)^{?+4} \Rightarrow ? = 10 - 4 = 6$

64. (5) $(2 \times 20 - 21) + (3 - 7) = (?)^2$
 $\Rightarrow (40 - 21) + 16 = (?)^2$

$\Rightarrow 35 \cong 36 = (?)^2$

$\therefore ?^2 = 36 \Rightarrow ? = 6$

65. (1) $\frac{5}{4} + \frac{7}{6} - \frac{9}{8} = ? + \frac{13}{12}$

$\Rightarrow \frac{5}{4} + \frac{7}{6} - \frac{9}{8} - \frac{13}{12} = ?$

$\Rightarrow ? = \frac{30+28-27-26}{24} = \frac{5}{24}$

66-70. A @ B → A ≥ B

A # B → A > B

A \$ B → A = B

A % B → A ≤ B

A * B → A < B

66. (1) V = Y ≥ Z ≤ X > T

I. T > Z (False)

II. X > Y (False)

III. Z < Y (False)

67. (1) R ≥ J ≤ F < E ≤ M

I. M > J (True)

II. F ≤ M (True)

III. M < R (False)

68. (1) H > R ≥ L < W ≤ F

I. H > L (True)

II. F < L (False)

III. H = F (False)

69. (4) H > Q ≥ F = M > K

I. H > K (True)

II. Q > K (True)

III. Q ≥ M (True)

70. (1) D < Q = L > T ≤ H

I. D < L (True)

II. L ≥ H (False)

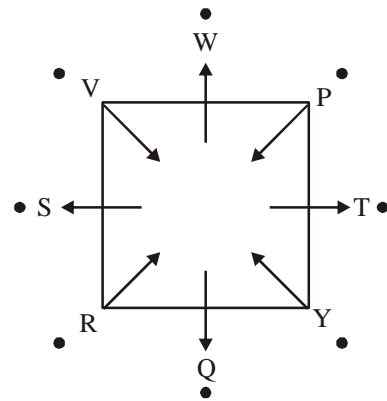
III. H < L (False)

Couples	
Male	Female
W	Q
T	S

71-75.

Member of Highest Income to Lowest	Profession
R	Doctor
V	Engineer
W	Lawyer
S	Chartered Accountant
P	Banker
Q	Teacher
T	Architect

76-80. According to information, sitting arrangement is as follow



76. There is no such person who will remain unchanged

77. R is second to the left of Y is definitely true.

78. Y sits fourth to the left of V.

79. Q is to the immediate right of R.

80. Except V all others are sitting between the row, while V is sitting at the corner of square table.

81-83.

Floor	Resident
7	G
6	F
5	E
4	A
3	C
2	D
1	B

81. G is at topmost floor.

82. C is immediately above D's floor.

83. F - 6th floor; E - 5th floor

B - 1st floor; G - 7th floor

C - 3rd floor

6th floor is an even digit number.

84. (2) $27 - 15 \div 3 \times 4 + 6 = 27 - \frac{15}{3} \times 4 + 6$

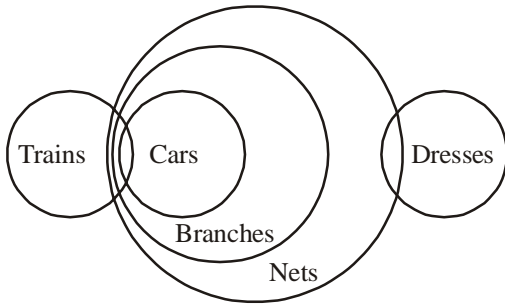
$= 27 - 20 + 6 = 13$

85. (4) W A V E; W I N S;

$\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$
5 % 3 * 5 9 @ ©

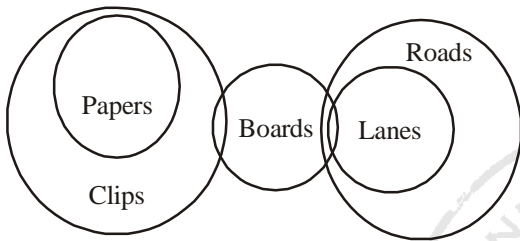
Similarly SANE → © % @ *

86. According to the statement venn diagram is follow



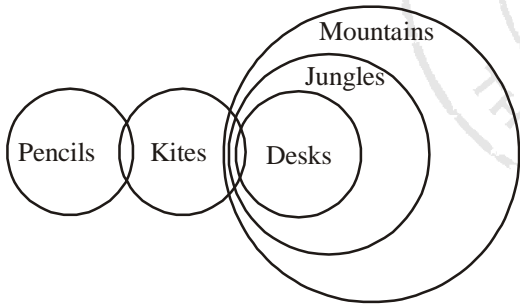
Conclusions: I. ✗ II. ✗ III. ✓ IV. ✓
So, III and IV follow.

87. According to the statement venn diagram is follow



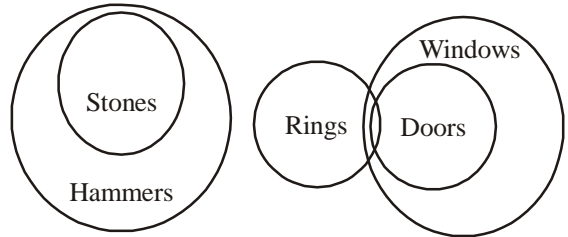
Conclusions: I. ✗ II. ✗ III. ✓ IV. ✗
So, only III follows

88. According to the statement venn diagram is follow



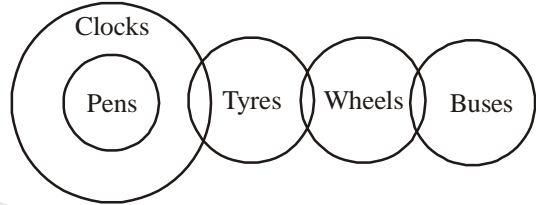
Conclusions: I. ✗ II. ✗ III. ✗ IV. ✓
So, only IV follows

89. According to the statement venn diagram is follow



Conclusions: I. ✗ II. ✓ III. ✗ IV. ✗
So, Either I or III and II follow

90. According to the statement venn diagram is follow



Conclusions: I. ✗ II. ✗ III. ✗ IV. ✗
So, none follows

91. (1) 471536

1st and last digits are even coded as *@\$H%*.

92. (3) 697845

First digit is even, last digit odd, both coded as the code to last digit.

Then code is ## @ A R H.

93. (2) 590247

Code is ## F T R @.

94. (5) 348096

First digit is odd and last digit is even. Code interchanged.

Then code is U R A F # %.

95. (4) 374862

First digit is odd last digit is even. Codes are to interchanged.

Then the code is T@RAU%.