

IBPS RRB Office Asst. Preliminary Grand Test –IRP-180710

HINTS & SOLUTIONS

ANSWER KEY

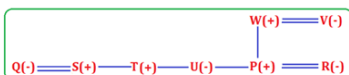
1. (1)	21. (1)	41. (2)	61. (3)
2. (3)	22. (1)	42. (1)	62. (5)
3. (2)	23. (4)	43. (3)	63. (1)
4. (4)	24. (1)	44. (4)	64. (5)
5. (5)	25. (5)	45. (2)	65. (2)
6. (3)	26. (3)	46. (1)	66. (3)
7. (3)	27. (2)	47. (2)	67. (2)
8. (5)	28. (4)	48. (4)	68. (1)
9. (2)	29. (2)	49. (3)	69. (2)
10. (2)	30. (4)	50. (4)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

HINTS & SOLUTIONS

1. (1) I. L < R (True) II. T > V (False)
 2. (3) I. E > A (False) II. A = E (False)
 3. (2) I. O > I (False) II. H > E (True)
 4. (4) I. E ≤ M (False) II. R ≤ O (False)
 5. (5) I. U < Y (True) II. T ≤ X (True)

6-10.

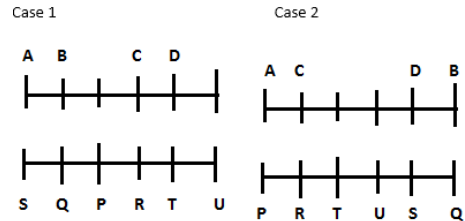
Persons	Games
P(+)	Poker
Q(-)	Bingo
R(-)	Let it Ride
S(+)	Craps
T(+)	Baccarat
U(-)	Sic Bo
V(-)	Keno
W(+)	Roulette



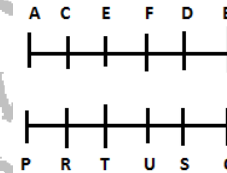
6. (3) 7. (3)
 8. (5) 9. (2) 10. (2)

11-15. U sits third to the right of P and one of them sits at the end of the row. A sits at the right end of the row. Three persons sit between A and D. T sits to the immediate left of U. Two persons sit between T and Q. Q who faces B

sits to the immediate right of S. C faces R. There will be two possibilities.



E sits to the immediate left of C. So Case 1 will be eliminated. The final arrangement is:



11. (3) 12. (2)
 13. (4) 14. (2) 15. (5)

E lives on floor number 4. A live on an even numbered floor. Two persons live between A and D

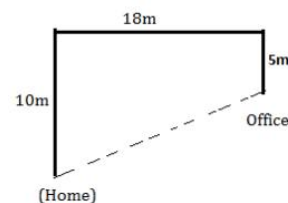
Case 1	Case 2	Case 3			
Floor	Person	Floor	Person	Floor	Person
8	A	8		8	
7		7		7	
6		6	A	6	
5	D	5		5	D
4	E	4	E	4	E
3		3	D	3	
2		2		2	A
1		1		1	

Three persons live between C and G. H lives immediately below G. B and F does not live on an even numbered floor. This will eliminate Case 2 and Case 3 as two odd floors for B and F will not be left. B does not live below F. So the final arrangement will be

Floor	Person
8	A
7	B
6	C
5	D
4	E
3	F
2	G
1	H

16. (5) 17. (4)
 18. (5) 19. (1) 20. (4)
 21. (1)
 22. (1)

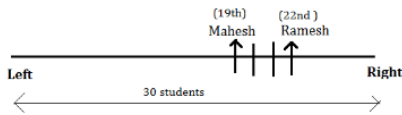
North-east



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23. (4)



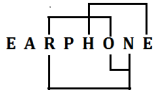
(Mahesh's Position = 30-19+1 = 12th from right end)

24. (1)

8 6 3 9 7 2 6 5 0 1
6 8 9 3 2 7 5 6 1 0

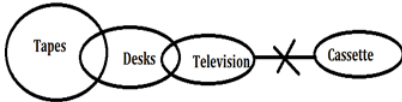
Series after performing operations is shown above. 6th element from left end is 7.

25. (5)



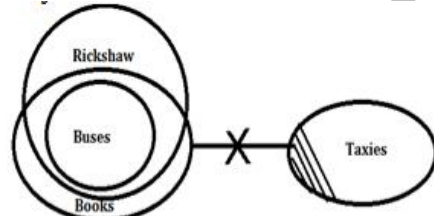
26. (3)

Only III Follows.



27. (2)

Only II follows.

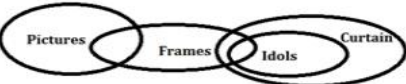


28. (4)

None Follows.

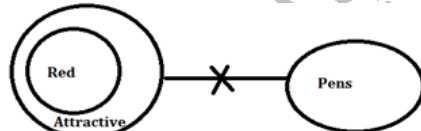


29. (2)



30. (4)

Neither I nor II follows.



31. (4)

By using condition (iii) the code for 'NY41A9' will be *+\$@?&

32. (4)

By using condition (iv) the code for 'U56FK8' will be <@!~^#

33. (3)

By using condition (ii) the code for '34NYFZ' will be %\$&+!%

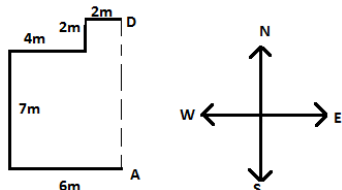
34. (2)

The code for '4UK8A6' will be \$#@<?~

35. (4)

By using condition (i) the code for '6ZN3U8' will be ~%&>#~

36-37.



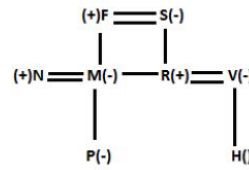
36. (2)

(7+2) = 9m

37. (3)

South

38-40.



38. (3)

41. (2)

$$\frac{?}{100} \times 450 = \frac{54}{100} \times 350 + \frac{64}{100} \times 450$$

$$\Rightarrow 4.5 \times ? = 189 + 288$$

$$\Rightarrow ? = \frac{477}{4.5}$$

$$\Rightarrow ? = 106$$

42. (1)

$$? = (3 + 6 + 4 - 7) + \left(\frac{1}{2} + \frac{3}{5} + \frac{3}{6} - \frac{4}{6}\right)$$

$$= 6 + \left(\frac{1}{2} + \frac{3}{5} + \frac{1}{2} - \frac{2}{3}\right)$$

$$= 7 - \frac{1}{15}$$

$$= 6 \frac{14}{15}$$

43. (3)

$$\frac{10}{100} \times ? = \frac{10.8}{100} \times 250 + \frac{21.6}{100} \times 550$$

$$\frac{?}{10} = 27 + 118.8$$

$$\Rightarrow ? = 1458$$

44. (4)

$$? = 328 \times 5 + 351 - 4 \times 210$$

$$= 1640 + 351 - 840$$

$$= 1151$$

45. (2)

$$? = 7.82 + 18.114 - 14.4$$

$$= 11.534$$

46. (1)

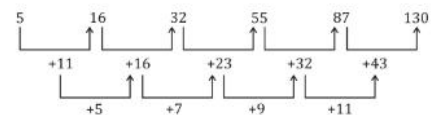
Series is
 $4.7 + 8 = 12.7$
 $12.7 + 16 = 28.7$
 $28.7 + 32 = 60.7$
 $60.7 + 64 = 124.7$
 $124.7 + 128 = 252.7$

47. (2)

Series is $1 \times 3 + 1 = 4$
 $4 \times 3 + 2 = 14$
 $14 \times 3 + 3 = 45$
 $45 \times 3 + 4 = 139$
 $139 \times 3 + 5 = 422$

48. (4)

Pattern is



49. (3)

Series is
 $21^2 - 1 = 441 - 1 = 440$
 $25^2 - 1 = 625 - 1 = 624$
 $29^2 - 1 = 841 - 1 = 840$
 $33^2 - 1 = 1089 - 1 = 1088$
 $37^2 - 1 = 1369 - 1 = 1368$
 $41^2 - 1 = 1681 - 1 = 1680$

50. (4)

$981 - 20 = 961$
 $961 - 25 = 936$
 $936 - 30 = 906$
 $906 - 35 = 871$
 $871 - 40 = 831$

51. (1)

Let length of train A = 3x
 Length of train B = 5x
 Speed of train A = $72 \times \frac{5}{18} = 20$ m/sec
 Speed of train B = $54 \times \frac{5}{18} = 15$ m/sec
 ATQ,
 $\frac{8x}{20+15} = 16$
 $\Rightarrow x = 70$
 \therefore Length of train B = $5 \times 70 = 350$ m

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52. (3) (Profit of Ramesh) : (Profit of Ramu) : (Profit of Keshav)
 $= 36000 \times 12 : 48000 \times 12 : 24000 \times 6$
 $= 3 : 4 : 1$
 \therefore Profit of Ramu $= \frac{4}{8} \times 6400$
 $= \text{Rs. } 3200$
53. (4) Let the present age of P and Q is P years and Q years respectively
 $P + Q = 54$ _____(I)
 And, $\frac{P+4}{Q+4} = \frac{2}{3}$
 $\Rightarrow 3P + 12 = 2Q + 8$
 $\Rightarrow 3P - 2Q = -4$ _____(II)
 Solving equation (I) and (II)
 $(P + Q = 54) \times 2$
 $3P - 2Q = -4$
 $5P = 104$
 $\Rightarrow P = 20.8$ years
54. (2) Total no. of ways $= \frac{6!}{2! \times 2!}$ (\because 2A & 2G)
 $= 180$
55. (3) Favourable cases $= (1, 3, 5) = 3$
 Possible cases $= 6$
 \therefore Required probability $= \frac{3}{6} = \frac{1}{2}$
56. (3) Required difference $= \frac{(16-12)}{100} \times 45000 = 1800$
57. (1) Required average $= \frac{1}{3} \times (24 + 8 + 4) \times 450 = 5400$
58. (4) Required percentage $= \frac{36-24}{24} \times 100 = 50\%$
59. (2) No. of candidates who are males who are selected from Etawah
 $= \frac{12}{100} \times \frac{80}{100} \times 45000$
 $= 4,320$
60. (1) Required percentage $= \frac{8}{24} \times 100 = 33\frac{1}{3}\%$
61. (3) $x = \pm \frac{1}{26}$
 $y = \frac{1}{24}$
 $\therefore x < y$
62. (5) $x = 3, -\frac{11}{2}$
 $y = 3, -2$
 \therefore No relationship can be established
63. (1) $x = -6$
 $y = -7, -8$
 $\therefore x > y$
64. (5) $x = -3.5, 5$
 $y = 6, 1$
 \therefore No relationship can be established
65. (2) $x = \frac{8}{3}, \frac{5}{4}$
 $y = -2, \frac{5}{4}$
 $\therefore x \geq y$
66. (3) $(2)^{7.2+4.8-4} = (2)^7$
 $? = 8$
67. (2) $187-18=169$
68. (1) $28 \times 11.25 = 315$
69. (2) $? = \frac{64896}{312 \times 26}$
 $? = 8$
70. (3) $14 \times 2 \times 8 \times 5 = 1120$
71. (3) Speed of man $= 2$ m/sec
 Speed of train $= 72 \times \frac{5}{18} = 20$ m/sec
 \therefore Length of train $= (20 - 2) \times 10 = 180$ m
 \therefore Length of tunnel $= 54 \times 20 - 180 = 900$ m
72. (4) Required time $= \frac{1000}{10} - \frac{1000}{(8+7)}$
 $= \frac{1000}{30}$ sec
 $= \frac{100}{3}$ sec
73. (2) Lets Neeraj and Arun invested Rs. 3x and Rs. 5x respectively
 Ratio of profit of Neeraj and Arun
 $= 3x \times 12 : (5x \times 4 + 4x \times 8)$
 $= 36x : 52x$
 $= 9 : 13$
 \therefore Profit share of Neeraj $= \frac{9}{22} \times 880 = \text{Rs. } 360$
74. (3) Required no. of ways $= 6! = 720$
75. (4) Required probability $= \frac{{}^4C_2}{{}^7C_2}$
 $= \frac{4 \times 3}{7 \times 6}$
 $= \frac{2}{7}$
76. (3) $? = 29 + 170 - 115$
 $= 84$
77. (4) $?^2 = \frac{40}{100} \times 420 + \frac{44}{100} \times 200$
 $= 168 + 88$
 $= 256$
 $\Rightarrow ? = \pm 16$
78. (2) $\frac{20}{100} \times ? = 1098$
 $\Rightarrow ? = 5490$
79. (1) $\frac{3^{4(\frac{?}{2})}}{10^{4(\frac{?}{2})}} = \frac{3^8 \times 3^2 \times 3^8}{10^8 \times 10^2 \times 10^8}$
 $(0.3)^{4(\frac{?}{2})} = \frac{3^8}{10^8} = (0.3)^8$
 $\Rightarrow 4(\frac{?}{2}) = 8$
 $\Rightarrow ? = 0$
80. (2) $? = 12 + 28 + 36 - 8$
 $= 76 - 8$
 $= 68$