

**IBPS RRB Officer Scale-I Preliminary Grand Test –IRP-180720**

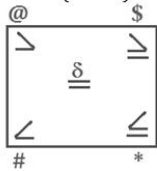
**HINTS & SOLUTIONS**

**ANSWER KEY**

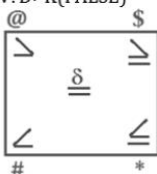
1. (5)	21. (1)	41. (3)	61.(2)
2. (1)	22. (3)	42. (2)	62. (3)
3. (2)	23. (4)	43. (3)	63. (4)
4. (5)	24. (3)	44. (5)	64. (5)
5. (5)	25. (3)	45. (1)	65. (1)
6. (2)	26. (3)	46. (4)	66. (4)
7. (4)	27. (2)	47. (3)	67. (3)
8. (1)	28. (5)	48. (2)	68. (5)
9. (3)	29. (4)	49. (4)	69. (4)
10. (2)	30. (5)	50. (1)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

**HINTS & SOLUTIONS**

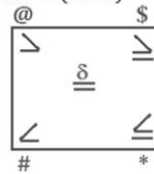
1. (5)  
 I. M>W(TRUE)  
 II. H>P(FALSE)  
 III. W=P(FALSE)  
 IV. W<P(FALSE)



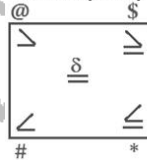
2. (1)  
 I. K<J(FALSE)  
 II. D>M(FALSE)  
 III. R<M(FALSE)  
 IV. D>K(FALSE)



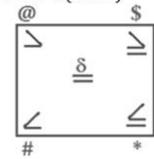
3. (2)  
 I. V<F(TRUE)  
 II. E>T(TRUE)  
 III. H>V(FALSE)  
 IV. T<V(TRUE)



4. (5)  
 I. J<R(FALSE)  
 II. J<K(TRUE)  
 III. R<F(FALSE)  
 IV. K>D(TRUE)



5. (5)  
 I. W>K(FALSE)  
 II. M>R(FALSE)  
 III. K>W(FALSE)  
 IV. M>P(TRUE)



6-10.

DAY	PERSON	COLOUR
Monday	B	Green
Tuesday	D	Blue
Wednesday	A	Grey
Thursday	G	Black
Friday	C	Orange
Saturday	E	Pink
Sunday	F	White

6. (2)  
 8. (1)  
 11-15.

Floor	Persons	Countries	Colours
8	K	Afghanistan	Pink
7	N	Bangladesh	Black
6	G	Tehran	Yellow
5	M	Korea	Blue
4	H	Egypt	Green
3	I	China	White
2	L	Bhutan	Purple
1	J	Myanmar	Red

11. (5)  
 13. (3)  
 16. (3)

7. (4)  
 9. (3)

10. (2)

12. (2)  
 14. (1)  
 15. (4)  
 From statement I, if the first Sunday was on 5th of August, then the last Sunday will be on 26th of August  
 From statement II, If the last day i.e. 31th is Friday, then 26th August was last Sunday. Hence either statement I or statement II alone is sufficient to answer the question.

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17. (5) Using both statements, there are 21 children in the row. B is 11th from the left and A is 15th from the left. So there are three children between A and B.
18. (2) First statement is not sufficient to find the answer. From second statement we can say that A is mother of B.
19. (3) From first statement, the order is C \_ A B. Hence B is to the immediate right of A. From second statement, the order is A B E. Hence B is to the immediate right of A. Hence either statement I or statement II alone is sufficient to answer the question.
20. (3) From statement I, 3 is common between '32' and '637'. Hence '3' means 'habit' and '2' means 'harmful'. From statement II, 4 is common between '64' and '842'. So '4' means 'drinking' and 2 means 'harmful'. Thus '3' means habit. Hence either statement I or statement II alone is sufficient to answer the question.

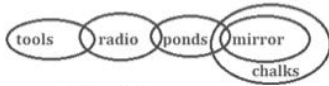
21-25.



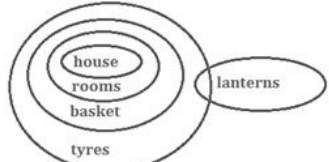
21. (1)  
23. (4)  
26. (3)

22. (3)  
24. (3)

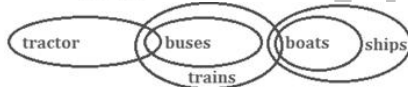
25. (3)



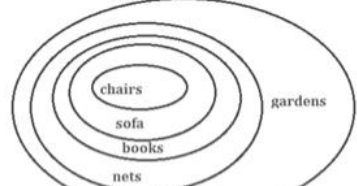
27. (2)



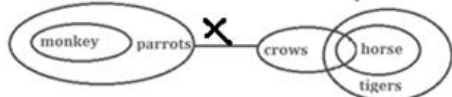
28. (5)



29. (4)



30. (5)



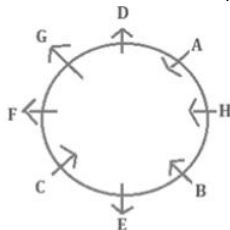
31-35.

Members	City	Language	Transportation
Vairavan	Bangalore	Kannada	Train
Vishal	Ahmedabad	Punjabi	Flight
Vinay	Kolkata	Tamil	Ship
Vivan	Hyderabad	Telgu	Truck
Vishwas	Delhi	Bangla	Bus/Bike
Vineet	Mumbai	Hindi	Car
Vivek	Chennai	Marathi	Bus/Bike

31. (4)  
33. (2)  
36-40.

32. (1)  
34. (5)

35. (5)



36. (2)  
38. (3)

37. (1)  
39. (3)

40. (4)

41. (3)  $x = 5, -8; y = 6, 8; x < y$   
42. (2)  $x = -2, 1; y = -2, -3; y \leq x$   
43. (3)  $x = -2, y = 5$   
44. (5)  $x = +9, -9; y = 7, 9$   
45. (1)  $x = -6, -7; y = -16, -11, x > y$

46. (4) Work done by A in 1 day =  $\frac{1}{15}$   
Work done by B in 1 day =  $\frac{1}{16}$   
1 day work of A and B =  $\frac{1}{15} + \frac{1}{16}$   
6 day work of A and B =  $\frac{6}{15} + \frac{6}{16} = \frac{31}{40}$   
Work remaining =  $1 - \frac{31}{40} = \frac{9}{40}$   
Time taken by A done  
Remaining work =  $\frac{9}{40} = \frac{27}{8} = 3\frac{3}{8}$   
Total days =  $6 + 3\frac{3}{8} = 9\frac{3}{8}$

47. (3)

Let the distance = D  
Let the speed of current = x  
Time (upstream) =  $\frac{D}{9.6-x}$   
Time (downstream) =  $\frac{D}{9.6+x}$   
According to question  
 $2 \times \text{Time (downstream)} = \text{Time (upstream)}$   
 $2 \times \frac{D}{(9.6+x)} = \frac{D}{9.6-x}$   
 $19.2 - 2x = 9.6 + x$   
 $3x = 9.6$   
 $x = 3.2 = 3\frac{1}{5} \text{ km/hr}$

48. (2)

Number of females =  $\frac{2}{5} \times 100 = 40$   
Males = 60  
Use allegation  
40 : 60  
2 : 3  
7x : 5x  
29  
29-5x : 7x-29

49. (4)

$\frac{7x-29}{29-5x} = \frac{3}{2}$   
 $x = 5$   
average age of females =  $7x = 7 \times 5 = 35$

49. (4)

Quantity of milk =  $\frac{4}{5} \times 75 = 60$   
Water = 15  
Let amount of water added.  
 $\frac{60}{15+x} = \frac{3}{1}$   
 $60 = 45 + 3x$   
 $x = 5$

50. (1)

$5x : 6x$ , Let B investment was used for y months  
 $8 \times 5x : 6x \times y = 5 : 9$   
 $\frac{40x}{6xy} = \frac{5}{9}$   
 $y = 12$

51. (3)

$1.2 = \frac{x}{4}, x = 4.8$

52. (2)

2003, 2004, 2006

53. (4)

$0.4 = \frac{x}{3}, x = 1.2$   
Required quantity =  $5 - 4.2 = 0.8$

54. (1)

Total increase =  $8 \times 2 = 16$  years  
So, total age of two women =  $35 + 45 + 16 = 96$   
Average age of two women =  $96/2 = 48$  years

# Grand Test – IRP-180720



55. (1) Price of the car = Rs.3,25,000  
 Car insured to 85% of its price  
 ⇒ Insured price =  $325000 \times \frac{85}{100}$   
 Insurance company paid 90% of the insurance  
 Amount paid by Insurance company = Insured price  $\times \frac{90}{100}$   
 =  $325000 \times \frac{85}{100} \times \frac{90}{100} = 325 \times 85 \times 9 = \text{Rs. } 248625$   
 Difference between the price of the car and the amount received  
 = Rs.325000 – Rs.248625 = Rs.76375

56. (5) Required probability =  $\frac{{}^6C_3 + {}^4C_3}{{}^{12}C_3} = \frac{6}{55}$

57. (2) Let the principal = P,  $P(1 + \frac{R}{100})^2 - P = 1414.4$ , P = 8500  
 Total amount =  $8500 + 1414.4 = 9914.4$

58. (4) Let sides of the rectangle = a and 2a, side of a square = b  
 $2(a+2a) = 4b$ ,  $a = \frac{2}{3}b$   
 Area of rectangle =  $a \times 2a = 2a^2$  or  $\left[\frac{2}{3}b\right]^2$   
 Area of square =  $b^2$   
 Ratio = 8:9

59. (1) Old price of 3 apples = Rs 1.25  
 New price of 3 apples = Rs 1  
 Percent decrease in price =  $\frac{(1.25 - 1)}{1.25} \times 100 = 20\%$

60. (3) Let the distance is x, then  $\frac{x}{5+3} + \frac{x}{5-3} = 6$   
 From this equation x = 9.6 km

61. (2) Total number of students  
 =  $2200 + 2700 + 1500 + 3000 + 3500 + 800 + 1700 + 2800 = 18200$   
 Required average =  $\frac{18200}{8} = 2275$

62. (3) Clerk =  $\frac{3}{4}(800 + 3500 + 2800)$   
 =  $\frac{3 \times 7100}{4}$   
 =  $1775 \times 3$   
 = 5325  
 Required no. of females =  $40 \times 53.25 = 2130$

63. (4) Required % =  $\frac{4300 - 1700}{1700} \times 100$   
 =  $\frac{2600}{17}$   
 = 152.94%

64. (5) Required Ratio =  $(3000 + 1700) : (18200 - 3500)$   
 = 47 : 147

65. (1) Let total number of students in 2015 = 100  
 ∴ total number of students in 2017 =  $100 + 25 + \frac{25}{100} \times 125$   
 =  $125 \left(1 + \frac{1}{4}\right)$   
 =  $\frac{125 \times 5}{4}$   
 And, total number of student in 2013 =  $\frac{100}{125} \times \frac{100}{125} \times 100 = 64$   
 ∴ Required Ratio =  $\frac{125 \times 5}{4} : 64$   
 = 625 : 256

66. (4) The pattern is  $\times 2 - 2, \times 4 - 8, \times 6 - 18, \times 8 - 32, \times 10 - 50, \dots$   
 $222 \times 8 - 32 = 1744$ , not 1742

67. (3) The pattern is  
 $\times 7 + 7^2, \times 6 + 6^2, \times 5 + 5^2, \times 4 + 4^2, \dots, 91 \times 6 + 6^2 = 582$ , not 584

68. (5) The pattern is  $-15^3, -13^3, -11^3, -9^3, \dots, 1418 - 7^3 = 1075$ , not 1077

69. (4) The pattern is  $1^4, 2^4, 3^4, 4^4, \dots, 3^3 = 27$ , not 25

70. (5) The pattern is  $\div 2, \div 2, \div 2, \div 2, \dots, 526.5 \div 2 = 263.25$ , not 262.25

71. (4) Ratio of their efficiency = 5 : 4 : 2  
 One day work of 2 men = 10 units  
 One day work of 3 women = 12 units  
 One day work of 4 children = 8 units  
 Let time taken is D  
 =  $\frac{(10+12+8) \times 10}{16} = \frac{[(6 \times 5) + (4 \times 4) + (7 \times 2)] \times D}{16}$   
 $30 = \frac{60 \times D}{16}$   
 D = 8 days

72. (2) A : B  
 Efficiency 13 : 10  
 ∴ (A + B) will complete the work in =  $\frac{\text{Total work}}{\text{eff. of (A+B)}}$   
 =  $\frac{13 \times 23}{10 + 13}$   
 = 13 days

73. (3) Required sum =  $\frac{19050}{127} \times 100$   
 =  $15 \times 1000$   
 = 15000 Rs.

74. (5) Milk = 63 litre  
 Water = 27 litres  
 $\therefore \frac{63 - \frac{63}{90} \times 18}{27 - \frac{27}{90} \times 18 + 18} = \frac{\text{New Milk}}{\text{New Water}}$   
 $\therefore \frac{\text{New Milk}}{\text{New Water}} = \frac{63(1 - \frac{2}{9})}{27(1 - \frac{2}{9}) + 18}$   
 =  $\frac{63 \times 4}{27 \times 4 + 18 \times 5}$   
 =  $\frac{198 + 90}{252}$   
 =  $\frac{198}{252}$   
 ∴ Required % =  $\frac{252}{450} \times 100 = 56\%$

75. (5)  $\frac{15x+6}{17x+6} = \frac{9}{10}$   
 $150x + 60 = 153x + 54$   
 $3x = 6$   
 $x = 2$   
 Required age =  $15x + 6$   
 = 36 years

76. (2) ? =  $\frac{251 \times 21 \times 12}{158.13} = 400$

77. (2)  $\sqrt{?} = 119 - \frac{25.6}{100} \times 250$   
 $\sqrt{?} = 55$   
 $? = 3025$

78. (1) ? =  $17.5 \times 15 = 262.5$

79. (4)  $16 \times \frac{2.4}{100} \times ? = 288$   
 $? = 750$

80. (5)  $\sqrt[3]{?} = \frac{28 \times 24}{14}$   
 $\sqrt[3]{?} = 48$   
 $? = 110592$