IBPS RRB Office Asst. Preliminary Grand Test –IRP-180706

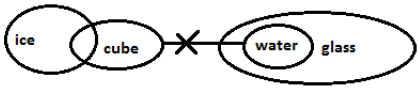
HINTS & SOLUTIONS

ANSWER KEY

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

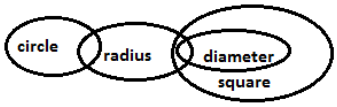
HINTS & SOLUTIONS

1. (5) SIT
2. (1) One letter between U and W i.e. V
3. (5) CTT, BDT, TTB, SHT
4. (1) BUT
5. (3) AFS, SVA
6. (1)



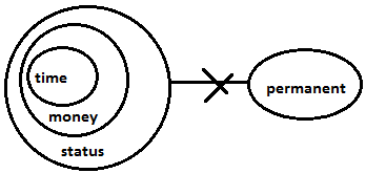
For I – Since, all water is glass and no water is cube therefore some glass are not cube will hold true. Hence, Conclusion I can be concluded.
For II – Since, there is no direct relation between ice and water therefore possibility case will hold true. Hence, Conclusion II can be concluded.

7. (5)



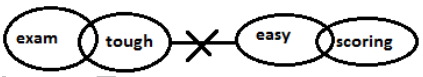
For I – There is no direct relation between circle and square. Hence, Conclusion I cannot be concluded.
For II – From Venn diagram it is clear that some radius are square. So the possibility case will not hold true. Hence, Conclusion II cannot be concluded.

8. (3)



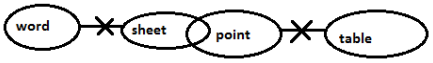
For I –Since all time is status but it cannot be said that all status will be time. Hence, Conclusion I cannot be concluded.
For II – Since all money is status and no status is permanent therefore some money is not permanent will hold true. Hence, Conclusion II can be concluded.

9. (4)



For I – Since, there is no direct relation between element exam and easy, therefore possibility case will hold true. Hence, Conclusion I can be concluded.
For II – Since, there is a no direct relation between tough and scoring, therefore Conclusion II will not hold true. Hence, Conclusion II cannot be concluded.

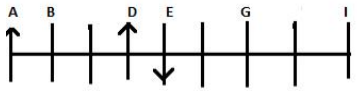
10. (3)



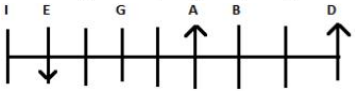
For I – No conclusion can be drawn from two negative statements. Hence, Conclusion I cannot be concluded.
For II – Since, some sheet are point and no point is table, therefore some sheet which are point cannot be table. Hence, Conclusion II can be concluded.

11-15. D sits third to the right of A and one of them sits at the extreme end of the line. Both face north. Three persons sit between A and E, who faces south. G sits second to the left of E. B sits to the immediate right of A. I sit at one of the extreme ends. There are two cases

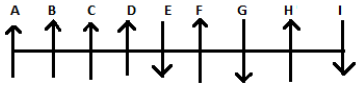
Case I



Case II



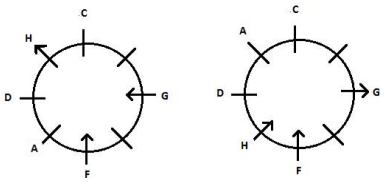
C sits to the immediate left of D. Four persons sit between C and H and both faces same direction as A. H does not sit to the immediate left of E. This will eliminate Case II.
Now immediate neighbors of H face same direction as E. B and F faces same direction. B and E face opposite direction. So final arrangement will be



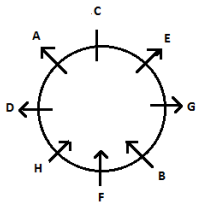
11. (1) 12. (5)
13. (2) 14. (3) 15. (3)

16-20. C sits fourth to the left of F. F faces inside. G sits second to the right of F. Two persons sit between A and G. H sits third to the right of G. D sits to the immediate left of H. We get two possibilities

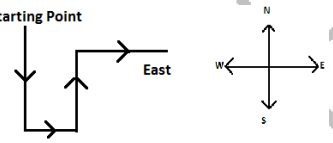
Case 1 Case 2



Immediate neighbors of C face same direction as G. This will eliminate Case 1(Since in Case 1 both are facing opposite direction). E sits second to the right of B. E is not an immediate neighbor of F. D faces opposite direction of F. Direction of C is not known. So the final arrangement will be:



16. (2) 17. (5)
18. (1) 19. (5) 20. (4)
21. (1) 6 22. (3) R
23. (4) Three – M$8, S#9, G@2
24. (3) Three – NM$, DS#, YZ1
25. (5) Z%7
26. (2) **I.** L < J (False) 27. (4) **I.** G ≥ D (False)
II. S > M (True) **II.** B < O (False)
28. (1) **I.** N ≥ F (True) 29. (3) **I.** U < Z (False)
II. E > N (False) **II.** Z = U (False)
30. (5) **I.** D < O (True)
II. G > M (True)
31. (3) Shiva's position from left end = 19th
Shiva's position from right end = 6th
Total number of students in the row = 19+6-1=24
32. (4)



Jay started walking towards south.

33. (5) ZXY WUV TRS QOP LNM
26 24 25 23 21 22 20 18 19 17 15 16 12 14 13
34. (1) 9876534567
7654356789
So, the digit is 7.
35. (2) GURUGRAM

36-40.

Word	Code
mango	ja
is	sa
tasty	ta
apple	ty
very	la
a/fruit	op/nm

36. (2) 37. (5)
38. (4) 39. (3) 40. (5)
41. (2) $4\frac{7}{12}+6\frac{5}{6}-8\frac{3}{4}=?+1\frac{2}{3}$
$?=4+6-8-1+\left(\frac{7}{12}+\frac{5}{6}-\frac{3}{4}-\frac{2}{3}\right)$
$=1+\left(\frac{7+10-9-8}{12}\right)$
$=1+(0)$
$=1$
42. (4) $25.4\times 8+49.7\times 4+?=(22)^2$
$203.2+198.8+?=484$
$?=82$
43. (5) $645+456-987-\sqrt{?}=(3)^4$
$114-81=\sqrt{?}$
$?=33^2$
$=1089$
44. (3) $810-756+?=\frac{10.5}{100}\times 1050$
$54+?=110.25$
$?=56.25$
45.(1) $333\div 3+752\div 16+?=32\times 20$
$111+47+?=640$
$?=482$
46. (3) Let distance travelled at 50 km/h is x
$\frac{x}{50}+\frac{170-x}{100}=2$
$\Rightarrow x=30\text{km}$
47. (4) Let age of husband, his wife and son is H, W and S
ATQ
$\frac{H+W+S}{3}=27$ [3 years ago]
$\Rightarrow H+W+S=81$
At present, $H+S+W=81+9=90$
Also,
$\frac{W+S}{2}=20$ [Five years ago]
$\Rightarrow W+S=40$
At present; $W+S=40+2\times 5=50$ ....(i)
From I and II
H = 40 yrs
48. (2) $W_1=200\times 3\times 2,\quad M_1=36, D_1=6, H_1=10$
$W_2=100\times 4\times 3\quad M_2=10$
$\frac{M_1D_1H_1}{W_1}=\frac{M_2D_2H_2}{W_2}$
$\Rightarrow\frac{36\times 6\times 10}{200\times 3\times 2}=\frac{10\times D_2\times 8}{100\times 4\times 3}$
$D_2=27$ days
49. (2) We know that, Average of odd consecutive numbers is always the middle no.
It is given, The Average of Ist 7 number is X which must be 4th No if we go by the rule.
Hence, Average of all 11 consecutive odd integers will be its middle no which is 6th number.
5th No is (X+2) and 6th No is X+2+2 or (X+4)
Hence required avg. = (x + 4)
50. (4) Let speed of car = x kmph
Relative speed = (x –2) kmph
As per given condition
$(x-2)\frac{6}{60}=0.6$
$\Rightarrow x=8$ kmph
51. (2) Required number of male candidates from UP & Maharashtra together
$=\frac{3}{4}\times 16400+\frac{4}{7}\times 9800$
$=12300+5600$
$=17900$
52. (2) Required difference
$=\left(\frac{1}{2}\times 12400+\frac{5}{8}\times 12800\right)$
$-\left(\frac{1}{2}\times 12400+\frac{3}{8}\times 12800\right)$
$=\frac{2}{8}\times 12800$
$=3200$
53. (1) Male candidate qualified the SBI clerk prelims exam from Gujrat
$=\frac{9}{16}\times 6400$
$=3600$
Male candidates qualified the SBI clerk prelims exam from Maharashtra $=\frac{4}{7}\times 9800$
$=5600$
$\therefore$ Required percentage $=\frac{3600}{5600}\times 100$
$=64\frac{2}{7}\%$

54. (3) Required average
$= \frac{1}{5} \times (12400 + 16400 + 9800 + 12800 + 6400)$
$= \frac{1}{5} \times 57800$
$= 11,560$

55. (1) Female candidates qualified the SBI clerk prelims exam from UP $= \frac{1}{4} \times 16400$
$= 4100$
Female candidates qualified the SBI clerk prelims exam from Bihar $= \frac{3}{8} \times 12800$
$= 4800$
$\therefore$ Required percentage $= \frac{4800-4100}{4800} \times 100$
$= \frac{700}{48}\% = \frac{175}{12}\% = 14\frac{7}{12}\%$

56. (3) 50% of $\frac{2}{5} \times 7000 \times \frac{1}{1400} + ? = 350$
$\frac{1}{2} \times \frac{2}{5} \times 7000 \times \frac{1}{1400} + ? = 350$
$1 + ? = 350$
$? = 349$

57. (2) $\frac{80}{100} \times 150 + \frac{60}{100} \times 50 = ?$
$120 + 30 = ?$
$? = 150$

58. (1) $1750 \times \frac{1}{35} \times 50 + 101 = (?)^2$
$2500 + 101 = (?)^2$
$?^2 = 2601$
$? = 51$

59. (4) $17 \times (865 - 345) = ? + 6910$
$17 \times 520 = ? + 6910$
$? = 8840 - 6910$
$? = 1930$

60. (3) $36 \times 36 \times 36 \times \frac{1}{243} + (36)^{\frac{1}{2}} = 3^? - 45$
$192 + 6 = 3^? - 45$
$3^? = 243$
$3^? = 3^5$
$? = 5$

61. (3) Total number formed = $6 \times 5 \times 4 \times 3 \times 2 = 720$

62. (4) Let no. of balls in bag x and y is $2a$ and $3a$ respectively
$\Rightarrow$ Now 5 balls pare taken out of bag y and put in bag x
$\therefore \frac{2a+5}{3a-5} = \frac{1}{1}$
$\Rightarrow 2a + 5 = 3a - 5$
$a = 10$
$\therefore$ No. of balls in each bag is
x $\Rightarrow 2 \times 10 + 5 = 25$
y $\Rightarrow 3 \times 10 - 5 = 25$

63. (4) Let total work = 96 units
Per day work of P $= \frac{96}{16} = 6$ units
Per day work of Q $= \frac{96}{24} = 4$ units
Per day work of R $= \frac{96}{32} = 3$ units
$\therefore$ Total time required if all works together $= \frac{96}{6+4+3}$
$= \frac{96}{13}$ days

64. (2) Let speed of stream = r km/h
A/q,
$(8 - r) \times 5 = (8 + r) \times 3$
$\Rightarrow 40 - 5r = 24 + 3r$
$\Rightarrow r = \frac{16}{8} = 2\ km/h$

65. (3) Length of train $= 90 \times \frac{5}{18} \times 6$
$= 150$ m
$\therefore$ length of platform $= \frac{5}{18} \times 90 \times 36 - 150$
$= 750$m

66. (1) The pattern is
$3 \times 2 + 2 = 8$
$8 \times 3 + 3 = 27$
$27 \times 4 + 4 = 112$
$112 \times 5 + 5 = 565$
$565 \times 6 + 6 = \boxed{3396}$

67. (3) The series is
5 (×2) 10 (×4) 40 (×8) 320 (×16) 5120 (×32) 163840

68. (4) The pattern is (square of prime number -1)
$13^2 - 1 = 169 - 1 = 168$
$17^2 - 1 = 289 - 1 = 288$
$19^2 - 1 = 361 - 1 = 360$
$23^2 - 1 = 529 - 1 = 528$
$29^2 - 1 = 841 - 1 = 840$
$31^2 - 1 = 961 - 1 = 960$

69. (2) $4800 \div 2 = 2400$
$2400 \div 4 = 600$
$600 \div 6 = 100$
$100 \div 8 = 12.5$
$12.5 \div 10 = \boxed{1.25}$

70. (5) The series is
$7 + 9 = 16$
$16 + 16 = 32$
$32 + 25 = 57$
$57 + 36 = 93$
$93 + 49 = \boxed{142}$

71. (3) Let present age of Mohit = 3x
So the present age of Ankit = 4x
ATQ,
$\frac{3x+6}{4x+6} = \frac{4}{5}$
$x = 6$
So difference of present age = 4x – 3x
$= (4 - 3) \times 6$
= 6 years

72. (1) Speed of boat in upstream = 17 kmph
Speed of river water = 3 kmph
So speed of boat in still water = 17 + 3 = 20 kmph
So speed of boat in downstream = 20 + 3 = 23 kmph

73. (2) Length of perimeter of circle = 2πr
$= 2 \times \frac{22}{7} \times 21$
= 132 cm
So side of square $= \frac{132}{4} = 33$ cm
$\therefore$ length of diagonal $= \sqrt{33^2 + 33^2}$
$= 33\sqrt{2}$ cm

74. (5) Sum of ages of 5 person A, B, C, D and E = 37 × 5 = 185 years
Sum of ages of A and B = 34 × 2 = 68 years
Sum of ages of C and D = 40 × 2 = 80 years
So age of E = 185 – 68 – 80 years = 37 years

75. (1) Investment × time of A = 5000 × 12 = 60000
Investment × time of B = 8000 × 6 = 48000
So profit share ratio of A to B
A : B = 60000 : 48000
= 5 : 4
So profit of B $= \frac{4}{(5+4)} \times 7200$ = Rs. 3200

76. (3) $175 \times 24 + 800 - 1400 = (?)^2$
$4200 + 800 - 1400 = (?)^2$
$3600 = (?)^2$
$? = 60$

77. (5) $125 \times 4 \times 5 - \frac{?}{4} = 2000$
$2500 - 2000 = \frac{?}{4}$
$? = 500 \times 4$
$? = 2000$

78. (2) $\frac{(?)}{25} \times 4 - 96 + 5 = 25$
$? = \frac{116 \times 25}{4}$
$? = 29 \times 25$
$? = 725$

79. (1) $101 + 154 + 50 = ?$
$? = 305.$

80. (4) $\frac{1}{17} \times 4913 - (?)^2 = 145$
$289 - (?)^2 = 145$
$289 - 145 = (?)^2$
$(?)^2 = 144$
$? = 12$