

IBPS RRB PO Preliminary Grand Test –IRPP-170810

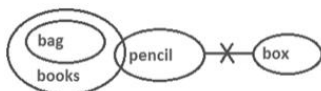
HINTS & SOLUTIONS

ANSWER KEY

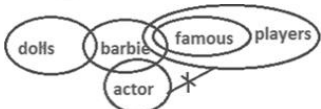
1. (3)	21. (4)	41. (4)	61. (4)
2. (4)	22. (5)	42. (1)	62. (3)
3. (2)	23. (3)	43. (4)	63. (2)
4. (1)	24. (3)	44. (3)	64. (4)
5. (5)	25. (1)	45. (2)	65. (1)
6. (3)	26. (5)	46. (3)	66. (1)
7. (4)	27. (3)	47. (2)	67. (5)
8. (3)	28. (3)	48. (4)	68. (3)
9. (4)	29. (1)	49. (1)	69. (1)
10. (3)	30. (5)	50. (1)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

HINTS & SOLUTIONS

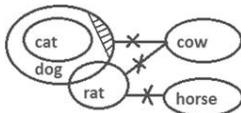
1. (3)



2. (4)



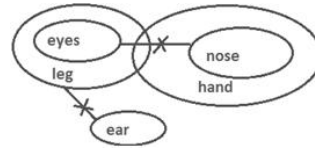
3. (2)



4. (1)



5. (5)



6. (3)

Odd numbers in descending order, then even numbers in desc order, then vowels in ascending and then consonants in ascending

Input: wife 23 step 56 87 orange ice 22

Step I: 87 wife 23 step 56 orange ice 22

Step II: 87 23 wife step 56 orange ice 22

7. (4)

Input: wife 23 step 56 87 orange ice 22

Step I: 87 wife 23 step 56 orange ice 22

Step II: 87 23 wife step 56 orange ice 22

Step III: 87 23 56 wife step orange ice 22

Step IV: 87 23 56 22 wife step orange ice

Step V: 87 23 56 22 ice wife step orange

8. (3)

Input: wife 23 step 56 87 orange ice 22

Step I: 87 wife 23 step 56 orange ice 22

Step II: 87 23 wife step 56 orange ice 22

Step III: 87 23 56 wife step orange ice 22

Step IV: 87 23 56 22 wife step orange ice

Step V: 87 23 56 22 ice wife step orange

Step VI: 87 23 56 22 ice orange wife step

Step VII: 87 23 56 22 ice orange step wife
Cannot be determined because the words or letters can be anywhere in above steps.

9. (4)

Step II: 93 33 56 root 16 input upper dusk

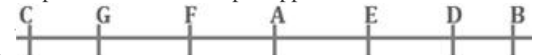
Step III: 93 33 56 16 root input upper dusk

Step IV: 93 33 56 16 input root upper dusk

Step V: 93 33 56 16 input upper root dusk

Step VI: 93 33 56 16 input upper dusk root

11-15.



11. (1)

13. (4)

15. (3)

16-20.

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

16. (2)

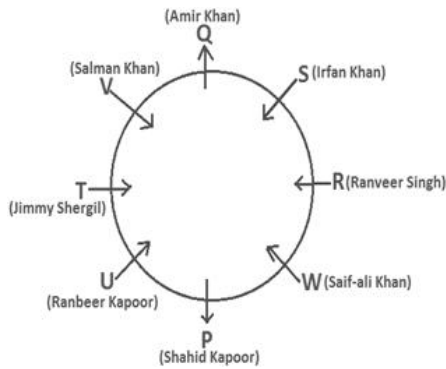
18. (1)

20. (2)

17. (4)

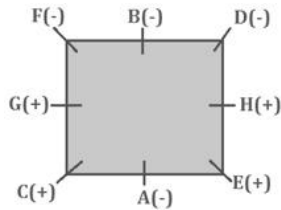
19. (3)

21-25.



21. (4)
23. (3)
25. (1)
26-30.

22. (5)
24. (3)



26. (5)
28. (3)
30. (5)
31. (5)

$V \leq S < L < J$
I. $V < L$ (True)
II. $S < J$ (True)

32. (2)

$M \leq R < J \leq H$
I. $M \leq H$ (False)
II. $R < H$ (True)

33. (1)

$H \geq F = G > M$
I. $H > M$ (True)
II. $H > G$ (False)

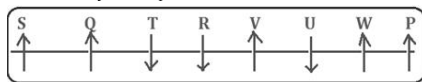
34. (4)

$R < J > T \leq L$
I. $R = T$ (False)
II. $J = L$ (False)

35. (1)

$W = T \geq K > F$
I. $W \geq K$ (True)
II. $W = K$ (False)

36-40.



36. (2)

37. (3)

38. (2)

39. (1)

40. (3)

41. (4)

$11 = 2 \times 3 + 5$
 $38 = 11 \times 4 - 6$
 $197 = 38 \times 5 + 7$
 $1172 \neq 197 \times 6 - 8$
 $\therefore 1172$ is wrong

42. (1)

$107 - 71 = 36 = 6^2$
 $71 - 46 = 25 = 5^2$
 $46 - 30 = 16 = 4^2$
 $30 - 21 = 9 = 3^2$
 $21 - 19 = 2 \neq 2^2$
 $\therefore 19$ is the wrong number

43. (4)

$7 + 9 = 16$
 $9 + 16 = 25$
 $16 + 25 = 41$
 $25 + 41 = 66 \neq 68$
 $\therefore 68$ is the wrong number

44. (3)

$4 \times 0.5 = 2$
 $2 \times 1.5 = 3 \neq 3.5$
 $3 \times 2.5 = 7.5$
 $7.5 \times 3.5 = 26.25$
 $26.25 \times 4.5 = 118.125$
 $\therefore 3.5$ is the wrong number

45. (2)

$16 \times 0.25 = 4$
 $4 \times 0.50 = 2$
 $2 \times 0.75 = 1.5$
 $1.5 \times 1 = 1.5 \neq 1.75$
 $1.5 \times 1.25 = 1.875$
 $\therefore 1.75$ is the wrong number

46. (3)

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

47. (2)

2003, 2004, 2006

48. (4)

$0.4 = \frac{x}{3} \Rightarrow x = 1.2$

49. (1)

Required quantity = $5 - 4.2 = 0.8$.
Total increase = $8 * 2 = 16$ years
So, total age of two women = $35 + 45 + 16 = 96$
Average age of two women = $96/2 = 48$ years

50. (1)

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

51. (2)

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

52. (3)

Clerk = $\frac{3}{4} (800 + 3500 + 2800)$
 $= \frac{3 \times 7100}{4}$
 $= 1775 \times 3$
 $= 5325$

Required no. of females = $40 \times 53.25 = 2130$

53. (4)

Required % = $\frac{4300 - 1700}{1700} \times 100$
 $= \frac{2600}{17} = 152.94\%$

54. (5)

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

55. (1)

Let total number of students in 2015 = 100
 \therefore 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 = $\frac{100}{125} \times \frac{100}{125} \times 100 = 64$
 \therefore Required Ratio = $\frac{125 \times 5}{4} : 64$
 $= 625 : 256$

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56. (4) Production of company C in 1999 = 45
 Production of company A in 2004 = 50
 i.e Required difference = 50-45 = 5 lakh tones
57. (1) Required percentage increase
 = $\{(55 - 40) \times 100\} / 40 = 37.5$
58. (5) In 2001 maximum percentage of decrease in production
59. (4) Total production of company C in 2001 & 2002 = (60+60)=120
 Total production of company A in 1999 & 2000 = (50+40)=90
 Required Percentage = $\{120 \times 100\} / 90 = 400/3 = 133\frac{1}{3}\%$
60. (3) Average production of company A = $1/6 (50+40+55+45+60+50) = 300/6$
 Average production of company B = $1/6 (55+60+50+55+50+55) = 325/6$
 Average production of company C = $1/6 (45+50+60+60+45+40) = 300/6$
 Required difference = $25/6 = 4.17$

61. (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 = $\frac{(\frac{9}{40})}{(\frac{1}{15})} = \frac{27}{8} = 3\frac{3}{8}$
 Total days = $6 + 3\frac{3}{8} = 9\frac{3}{8}$

62. (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
 $2 \times \text{Time (downstream)} = \text{Time (upstream)}$
 $2 \times \frac{D}{(9.6+x)} = \frac{D}{9.6-x}$
 $19.2 - 2x = 9.6 + x$
 $3x = 9.6$
 $x = 3.2 = 3\frac{1}{5}$ km/hr

63. (2) Number of females = $\frac{2}{5} \times 100 = 40$

Males = 60
 Use allegation

40	60
2	3
7x	5x
29-5x	7x-29

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

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

65. (1) $5x : 6x$, Let B investment was used for y months
 $8 \times 5x : 6x \times y = 5 : 9$
 $\frac{40x}{6xy} = \frac{5}{9}$
 $y = 12$

66. (1) $P = \frac{3C_1 \times 5C_1}{12C_2} = \frac{5}{22}$

67. (5) Let the sum be 'x' Rs.
 $x \times \frac{8 \times 2}{100} + \frac{x \times 10 \times 3}{100} + \frac{x \times 6 \times 3}{100} = 12800$
 $\frac{64x}{100} = 12800$
 Sum = $x = 12800 \times \frac{100}{64}$
 = 20000 Rs.

68. (3) Compounded money after 2 years
 = $27000 \times \left(1 + \frac{15}{100}\right)^2 = 35707.5$ Rs.
 Amount received on selling items
 = $(15000 + 13000 + 35000) \times \frac{80}{100} = 50400$ Rs.
 Total amount = $50400 + 35707.5 = 86107.5$
 Change in asset = $-\frac{(90000 - 86107.5)}{90000} \times 100$
 = -4.32%

69. (1) Since, after first round, the price decreased by Rs. 441.
 Let original price = P

Original price - Original price $\frac{(1+x)}{100} \times \frac{(1-x)}{100} = 441$
 $P - P \frac{(1-x^2)}{100 \times 100} = 441 \Rightarrow \frac{1-x^2}{100 \times 100} = \frac{P-441}{P}$

Now, for second cycle
 $(P - 441) \times \frac{(1+x)(1-x)}{100} = 1944.81$
 $(P - 441) \frac{(1-x^2)}{100 \times 100} = 1944.81$
 $(P - 441) \left(\frac{P-441}{P}\right) = 1944.81$
 $P^2 - 2826.81P + 194481 = 0$
 $P = 2756.25$ Rs.

70. (1) Let amounts be x, y and z
 Let amounts be x, y and z
 $104x = 108y = 112z$
 $x : y : z = 27 \times 28 : 26 \times 28 : 26 \times 27$
 required amount = $2186 \times 26 \times 28 / (27 \times 28 + 26 \times 28 + 26 \times 27)$
 = 728 Rs.

71. (1) Series is $\times 4 - 1, \times 4 - 2, \times 4 - 3, \times 4 - 4, \times 4 - 5, \dots$
 72. (5) Series is $\times 1 + 10, \times 2 - 10, \times 3 + 10, \times 4 - 10, \times 5 + 10$
 73. (1) Series is $\times 0.5 + 1, \times 0.5 + 1, \times 0.5 + 1, \times 0.5 + 1, \dots$
 74. (2) Series is
 $\times 1 - (1)^2 \times 12, \times 2 - (2)^2 \times 12, \times 3 - (3)^2 \times 12, \dots$
 75. (5) Series is $-3, -9, -27, -81, -243, \dots$
 76. (2) $23.8 + 13.2 = 37$
 77. (1) $81.2 + 52.2 = 133.4$
 78. (1) $26 + 16 = 42$
 79. (3) $149834 - 85973 = 63861$
 80. (1) $66.6 + 99.9 = 166.5$