

IBPS RRB PO Preliminary Grand Test –IRPP-170809

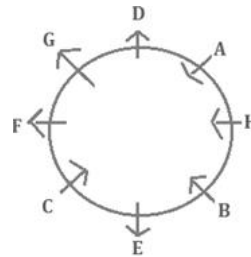
HINTS & SOLUTIONS

ANSWER KEY

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

10. (2) By using option (b) in the statement, we can see that 'A < C' and 'T ≠ U' are definitely true.

11-15.



11. (2)

12. (1)

13. (3)

14. (3)

15. (4)

16-20.

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

16. (4)

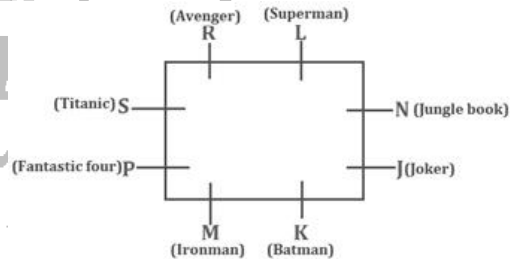
17. (1)

18. (2)

19. (5)

20. (5)

21-25.



HINTS & SOLUTIONS

1-5.

Person	Car	Company
A	Nano	Tata Docomo
B	Swift	Idea
C	Alto	MTNL
D	BMW	Airtel
E	WagonR	Reliance
F	Audi	Vodafone
G	Fiat	Aircel

21. (5)

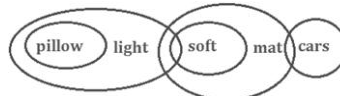
22. (4)

23. (4)

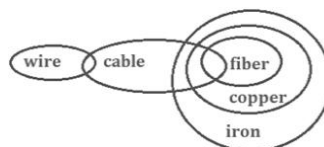
24. (2)

25. (3)

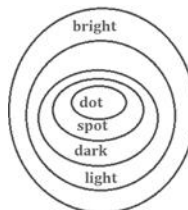
26. (3)



27. (2)



28. (4)



1. (4)

2. (3)

3. (2)

4. (1)

5. (4)

6. (5)

In given statement, by using option (1) we can see that all conclusions are followed and also by using option (3) in the statement again all conclusions are followed. So our answer is option (5).

Using (1) – $P < Q; D \leq N > W; D > W; Z = W$

Using (3) – $P = Q; D \leq N > W; D > W; Z = W$

In both cases all conclusions are followed)

7. (3)

By using option (3) in the statement, we can see that all conclusions are followed.

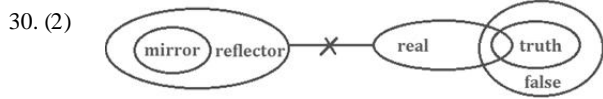
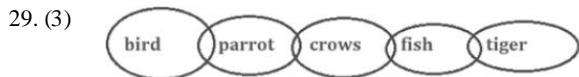
$K = D < C; T > Q; K \leq S \leq Q$

8. (2)

By using option (2) in the statement, we can see that all conclusions are followed.

9. (2)

By using option (2) in the statement, we can see that all conclusions are followed.



31-35. The machine rearranges one number and one word in each step. It picks even numbers and odd numbers alternately, starting with even numbers, and arranges even numbers in ascending order and odd numbers in descending order from left to right, while words are arranged in reverse alphabetical order from right to left.

Input: vote 13 inn 54 16 air know 49 wonder 24 quick 39 60 lucky

Step I. 16 vote 13 inn 54 air know 49 24 quick 39 60 lucky wonder

Step II. 16 49 13 inn 54 air know 24 quick 39 60 lucky vote wonder

Step III. 16 49 24 13 inn 54 air know 39 60 lucky quick vote wonder

Step IV. 16 49 24 39 13 inn 54 air know 60 lucky quick vote wonder

Step V. 16 49 24 39 54 13 inn air 60 know lucky quick vote wonder

Step VI. 16 49 24 39 54 13 air 60 inn know lucky quick vote wonder

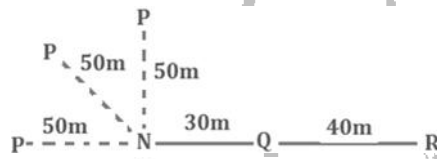
Step VII. 16 49 24 39 54 13 60 air inn know lucky quick vote wonder

31. (3) 32. (1)

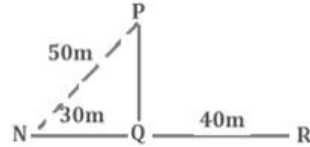
33. (3) 34. (1)

35. (3)

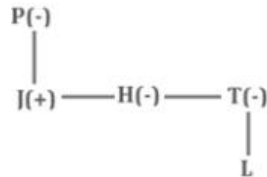
36. (4)



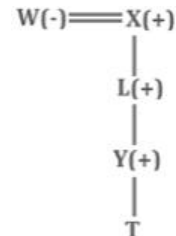
37. (1)



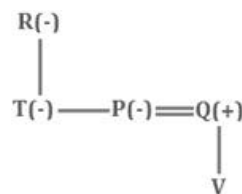
38. (1)



39. (4)



40. (4)



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

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

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

44. (4) The pattern is
 $1^1, 2^2, 3^3, 4^4, \dots$
 $3^3 = 27, \text{not } 25$

45. (5) The pattern is
 $\div 2, \div 2, \div 2, \div 2, \dots$
 $526.5 \div 2 = 263.25, \text{not } 262.25$

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

47. (2) Let the principal = P
 $P(1 + \frac{8}{100})^2 - P = 1414.4, P = 8500$

Total amount = $8500 + 1414.4 = 9914.4$

48. (4) Let side 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 $[\frac{8}{9}]b^2$

Area of square = b^2

Ratio = 8:9

49. (1) Old price of 3 apples = Rs. 1.25

New price of 3 apples = Rs 1

Percent decrease in price = $\frac{(1.25 - 1)}{1.25} \times 100 = 20\%$

50. (3) Let the distance is x, then $\frac{x}{5+3} + \frac{x}{5-3} = 6$

From this equation $x = 9.6 \text{ km}$

51. (2) Required population
 $= 1000000 \times \frac{1006}{1000} \times \frac{1005}{1000} = 101103.$

52. (1) Required ratio = $\frac{17 \times 101.8 \times 101.6}{21 \times 102.8 \times 103.1} = 0.79$

53. (2) $418600 \times \frac{1000}{1020} \times \frac{1000}{1026} \approx 400 \text{ thousand}$

54. (3) Average % growth of Gorakhpur = 12.7/5%
 Average % growth of Chandigarh = 21.9/5%
 required percentage = $\frac{12.7}{21.9} \times 100 = 58\%$

55. (3) $\frac{204.8 \times \frac{100}{102.4}}{400} = 1:2$

56. (2) C.P. = $150 + 50 = 200$
 S.P. = $\frac{110}{100} \times 200 = 220$

57. (2) S.P. of x = $200 + 20 + 5 = 225$
 C.P. of w = $90 + 10 = 100$
 Req. % = $\frac{225}{100} \times 100 = 225\%$

58. (3) Loss on y = $400 - 400 \times \frac{100}{75} = \frac{400}{3}$
 Loss on w = 10

Ratio = $\frac{400}{3} : 10 = 40:3$

59. (4) S.P. of z = $440 \times \frac{106}{100} = 466.4$
 S.P. of x = 225
 Difference = $466.4 - 225 = 241.4$

60. (5) S.P. of $v=95\%$ of 200 = 190
 S.P. of $z=466.4$
 Req. % = $\frac{466.4-190}{466.4} \times 100 = 59.26\%$

61. (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

$$= \frac{(10+12+8) \times 10}{10} = \frac{[(6 \times 5) + (4 \times 4) + (7 \times 2)] \times D}{16}$$

$$30 = \frac{60 \times D}{16}$$

 D = 8 days

62. (2) 13 days;

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

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

64. (5) Milk = 63 litre
 Water = 27 litres

$$\therefore \frac{63 - \frac{63}{90} \times 18}{27 - \frac{27}{90} \times 18 + 18} = \frac{\text{New Milk}}{\text{New Water}}$$

$$\therefore \frac{\text{New Milk}}{\text{New Water}} = \frac{63(1 - \frac{1}{5})}{27(1 - \frac{1}{5}) + 18}$$

$$= \frac{63 \times 4}{27 \times 4 + 18 \times 5}$$

$$= \frac{108 + 90}{252}$$

$$= \frac{198}{252}$$

∴ Required % = $\frac{252}{450} \times 100 = 56\%$

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

66. (4) Reduced price = $\frac{20 \times 385}{3.5 \times 100} = 22$ per kg.
 Original price = $\frac{100 \times 22}{80} = \text{Rs. } 27.50$

67. (2) Given, P = 10000
 T = 2 year
 $A = P \left(\frac{1+20}{100} \right)^2$
 = $10000 \times \frac{4}{5} \times \frac{4}{5} = \text{Rs. } 6400$

68. (2) Given average of the eight numbers = 20
 Sum of the eight numbers = $20 \times 8 = 160$
 Sum of the first two numbers = 31
 Sum of the next three numbers = $21 \frac{1}{3} \times 3$
 $= \frac{64}{3} \times 3 = 64$
 Let the sixth number = x
 ∴ Seventh number = x + 4
 and eight number = x + 7
 Now, total sum = 160
 $\therefore 31 + 64 + x + x + 4 + x + 7 = 160$
 $\Rightarrow 3x + 106 = 160$
 $\Rightarrow x = \frac{54}{3} = 18$
 ∴ 8th number = x + 7 = 18 + 7 = 25

69. (3) Let train A start from Station A and B from Station B.
 Let the trains A and B meet after t h
 ∴ Distance covered by train A in t h = 50 t km
 Distance covered by train B in t h = 60 t km
 According to the question,
 $60 t - 50 t = 120$
 $\therefore t = \frac{120}{10} = 12$ h
 ∴ Distance AB = $50 \times 12 + 60 \times 12$
 = 600 + 720 = 1320 km

70. (1) Area of rectangular field = $\frac{\text{Total sum}}{\text{Amount / m}^2}$
 $= \frac{1000}{0.25} = 4000 \text{ m}^2$
 ∴ Length of rectangular field = $\frac{\text{Area}}{\text{Breadth}} = \frac{4000}{50} = 80$ m
 Since, the length is increased by 20 m
 ∴ New length = 80 + 20 = 100 m
 New area = $100 \times 50 = 5000 \text{ m}^2$
 New Expenditure = $5000 \times \frac{25}{100} = 1250$ Rs.

71. (1) $x = -\frac{9}{2}, -7$
 $y = -\frac{7}{4}, -3$
 $x < y$

72. (5) $x = -\frac{8}{3}, -7$
 $y = -5, \frac{5}{2}$
 ∴ No relation

73. (4) $x = -\frac{11}{3}, -4$
 $y = -\frac{11}{3}, -3$
 ∴ $x \leq y$

74. (5) $x = \frac{9}{4}, 5$
 $y = \frac{3}{4}, 4$
 ∴ No relation

75. (3) $x = \frac{7}{2}, 3$
 $y = \frac{7}{5}, 3$
 ∴ $x \geq y$

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

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

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

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

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