**IBPS RRB Asst. Preliminary** Grand Test –IRPP-170817
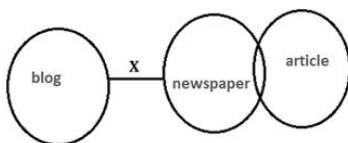
## HINTS & SOLUTIONS

### ANSWER KEY

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

### HINTS & SOLUTIONS

1.(1)



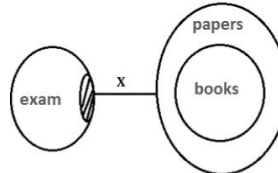2nd conclusion is restatement. So, 2nd conclusion does not follows.
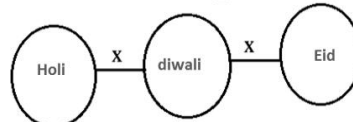
2.(5)
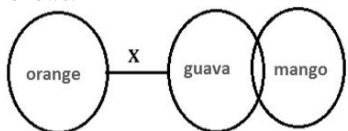


3.(2)
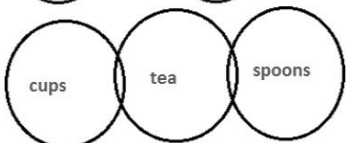


4.(2)



5.(4)



6. (4) From I: 'when ever go to there' is coded as 'na ja ni ho lo'
From II: 'go there and come back' is coded as 'ma ho sa ni da'.
So, I & II together are not sufficient.

7.(5) From I and II we get that K is the heaviest and J is only lighter than K.

8.(5) From I and II we get that '@' is the code for 'really'.

9.(5) If the data in both the statement I and II together are necessary to answer the question.

10.(1) From I – Sumit's position from right end = 50+1-12= 39 so there are 21 students between sumit and arun.

11-15.

| Time | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
|---|---|---|---|---|---|---|---|
| 9 to 10 | C | | C | C | | | |
| 10 to 12 | BC | | C | BC | B | | B |
| 12 to 2 | B | A | | AB | B | | AB |
| 2 to 4 | | A | | A | C | C | AC |

*Day*

11.(3)          12.(4)
13.(1)          14.(1)
15.(5)

16-20.

| PERSON | ORGANISATION | DEPARTMENT |
|---|---|---|
| ROHIT | P | Account |
| ROHAN | Q | OPERATIONS |
| SWETA | R | MARKETING |
| KAMAL | Q | HR |
| GAGAN | R | RESEARCH |
| PARUL | P | DESIGN |
| SHIVAM | Q | ADMIN |

16.(3)          17.(2)
18.(5)          19.(1)
20.(4)

21-25.



21.(3)          22.(2)
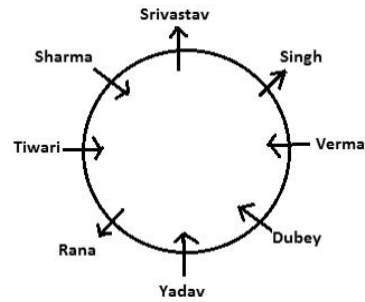
7

23.(1)                  24.(1)

25.(4)

26.(3)   Required number of letters = (8, @, &,2,6,&, $,7, *, 3,%, 4)= 12

27.(1)   There is only such symbol (E%A)

28.(3)   The series is ---
CMA, N&E, 2Y3, S&W......

29.(1)   R = 8$^{th}$, L = 13$^{th}$. Therefore L = 21$^{st}$ = 4.

30.(4)   Except (4), in other groups, there is a gap of one letter/symbol between two.

31.(1)   L > E (True)         C $\geq$ J (False)

32.(2)   N $\geq$ S (False)       P $\leq$ Q (True)

33.(1)   M $\leq$ J (True)        H $\leq$ M (False)

34.(4)   D > Q (False)        K $\leq$ E (False)

35.(5)   Q $\leq$ E (True)        G > F (True)

36-40.   sweet$\rightarrow$ja
is$\rightarrow$ la/ta
very$\rightarrow$ la/ta
tasty$\rightarrow$ sa
cold$\rightarrow$ da
drinks$\rightarrow$ pa/ra
are$\rightarrow$ pa/ra
coffee$\rightarrow$fa

36.(1)                  37.(2)

38.(3)                  39.(4)

40.(5)

41.(3)   ?= 7682 – 4909 = 2773

42.(2)   $\sqrt{?} = \sqrt{2601} - 14 = 51 - 14 = 37 \Rightarrow ? = 1369.$

43.(3)   $\frac{85}{100} \times 420 + \frac{x}{100} \times 1080 = 735 \Rightarrow x = 35$

44.(4)

45.(2)   ? = 367.5 – 355.2 = 12.3

46.(2)

47.(4)   $\frac{44}{100} \times 850 \times \frac{x}{100} \times 150 + \frac{72}{100} \times 72 = 1454.34$

$\Rightarrow 561 \times x + 51.84 = 1454.34 \Rightarrow x = 2.5$

48.(1)   $\frac{18}{7} \times \frac{49}{35} \times \frac{321}{70} = 16.508$

49.(5)   $(7 \times 32) \div 4 + 35 - 16 = \sqrt{x}$

$\Rightarrow \sqrt{x} = 56 + 19 = 75$

$\Rightarrow x = 5625$

50.(3)   $(37 - 42 + 25 - 2) + \left( \frac{13}{17} - \frac{15}{17} + \frac{11}{34} - \frac{1}{34} \right)$

$= 18 + \left( \frac{26 - 30 + 10 - 1}{34} \right) = 18 + \frac{6}{34} = 18\frac{6}{34} = 18\frac{3}{17}$

51.(2)   Not selected from Ranchi in 2002 → 8
In 2003 → 14
In 2004→ 14
In 2005→ 15
In 2006→ 14
In 2007→ 8
In 2008→ 4
Average= 77/7= 11

52.(1)   Required Ratio = $\frac{56+40+38+40+88}{8+8+8+12+2} = \frac{262}{38} = 131 : 19$

53.(1)   Required participants = 79 + 38 + 41 + 66 + 72 = 296.

54.(4)   Delhi = $\frac{431}{527} \times 100 = 81.7\%$

Ranchi = $\frac{364}{441} \times 100 = 82.5\%$

Patna = $\frac{407}{473} \times 100 = 86.04\%$

Pune = $\frac{412}{469} \times 100 = 87.8\%$

Jaipur = $\frac{479}{525} \times 100 = 91.23\%$

$\therefore$ Required city = Jaipur

55.(3)   From the chart, we have to look only for year 2005 and 2008.

$\therefore$in2005 = $\frac{66}{69} \times 100 = 95.6\%$

in 2008 = $\frac{62}{66} \times 100 = 93.9\%$

56.(1)   Profit = 36 – 300 = 69

Profit % = $\frac{69}{300} \times 100 = 23\%$

57.(3)   Required Ratio = $\frac{500+325+225}{150+300+450}$

$= \frac{1050}{900}$

$= \frac{21}{18}$

$= 7 : 6$

58.(5)   Total expenditure = 12,00,000

$100 - 50 = 50\%$ of the total income = 12,00,000

$= \frac{50}{100} \times x = 1200000$

$\Rightarrow x = 2400000 = 2400$ thousands

59.(1)   Required % = $\frac{575-260}{260} \times 100$

$= \frac{315}{260} \times 100$

$= \frac{1575}{13}$

$= 121\frac{2}{13}\%$

60.(3)   Required average

$= \frac{370 + 500 + 550 + 300 + 450}{5} = \frac{2170}{5} = 434$

61.(2)   Series is $+6^3, -5^3, +4^3, -3^3, +2^3$
Therefore, ? = $153 + 2^3 = 161.$

62.(3)   Series is ×7, ×6, ×5, ×4, ×3
Therefore ? = 10080 × 3 = 30240.

63.(3)   Series is ×1.5 – 1.5, ×2 – 2, ×2.5 – 2.5, ×3 – 3, ×3.5 – 3.5
Therefore, ? = 582 × 3.5 – 3.5 = 2033.5.

64.(2)   Series is $+11^2, +7^2, +5^2, +3^2, +2^2$ (series of prime numbers)
Therefore, ? = $215 + 2^2 = 219.$

65.(3)   Series is as Tn = $\frac{Tn}{2.5}$

$\therefore ? = \frac{25}{2.5} = 10$

66.(3)   Required difference
$= \frac{70}{100} \times \frac{90}{100} \times 1000 - \frac{60}{100} \times 1000$
$= 630 - 600$
$= 30$

67.(5)   Let amount be x.
$\frac{x \times 8 \times 1}{100} + \frac{(20,000-x) \times 10 \times 1}{100} = 1900$
$8x + 200000 - 10x = 190000$
$2x = 10000$
$x = 5000$

**68.(4)** When C.I. calculated half-yearly.

$R = \frac{10}{5} = 5\%$, $T = 1\frac{1}{2} \times 2 = 3$

$\therefore$ C. I. $= 18000\left(1 + \frac{5}{100}\right)^3 - 18000$

$= 2837.25$

**69.(3)** $30 \times 16 \times 20 = 24 \times x \times 20$

$x = \frac{30 \times 16}{24}$

$x = 20$ days

**70.(1)** Required time $= \frac{1}{\frac{1}{12} - \frac{1}{30}}$

$= \frac{1}{\frac{5-2}{60}}$

$= \frac{60}{3}$

$= 20$ hours

**71.(1)** Distance travelled by wheel $= 2 \times \frac{22}{7} \times 28 \times 1000$

$= 176000$ cm

$= 1760$ m

$\therefore$ Speed $= \frac{1760}{60} = 29.33$ m/sec

**72.(1)** Speed $= \frac{44}{7} \times 14 \times \frac{1}{6}$ m/sec

$= \frac{44}{3} \times \frac{18}{5}$ km/sec

$= \frac{264}{5} = 52.8$ kmph.

**73.(4)** Let distance $= d$

$\therefore \frac{d}{4} + \frac{d}{12} = 8$

$3d + d = 8 \times 12$

$4d = 8 \times 12$

$d = 24$ km

**74.(1)** Required sum $= 30 \times 13 - [(15 \times 20) + (6 \times 25)]$

$= 390 - [100 + 150]$

$= 390 - 250$

$= 140$

**75.(4)** Let no. be 100

$\therefore$ increased by 10% = 110

Now, decreased by 10% = 110 − 11 = 99

**76.(3)** Let present age of Rituraj $= x$

Diwaker's present age $= 7(x - 3) + 3$

$= 7x - 21 + 3$

$= 7x - 18$

$\therefore 7x - 18 + 3 = 4(x + 3)$

$7x - 15 = 4x + 12$

$3x = 27$

$x = 9$ years

**77.(2)** Let speed of men in still water $= x$

Speed of current $= y$.

$\therefore \frac{6}{x+y} = 1.5$

$x + y = 4$ ...............(i)

Now,

$\frac{6}{x-y} = 2$

$x - y = 3$ ............(ii)

By eqn. (i) and eqn. (ii)

$2x = 7$

$x = 3.5$ kmph

**78.(5)** Monthly income $= \frac{24000}{5} \times 8 = 38400$.

**79.(1)** Relative speed $= 120 + 80 = 200$ kmph

$\therefore$ Required time $= \frac{1200}{200} = 6$ hours

**80.(3)** Required way $= \frac{11!}{3!} = 6652800$