

**INDIAN POST PAYMENT BANK GRAND
TEST : IPPB-01011 - HINTS & SOLUTIONS**

ANSWERS

1	(2)	21	(2)	41	(2)	61	(4)	81	(4)
2	(3)	22	(1)	42	(1)	62	(5)	82	(2)
3	(5)	23	(2)	43	(3)	63	(2)	83	(3)
4	(5)	24	(5)	44	(3)	64	(2)	84	(1)
5	(4)	25	(3)	45	(5)	65	(3)	85	(5)
6	(2)	26	(2)	46	(1)	66	(5)	86	(2)
7	(3)	27	(4)	47	(1)	67	(1)	87	(3)
8	(4)	28	(1)	48	(2)	68	(1)	88	(4)
9	(1)	29	(5)	49	(1)	69	(3)	89	(1)
10	(2)	30	(3)	50	(3)	70	(2)	90	(4)
11	(3)	31	(5)	51	(5)	71	(2)	91	(5)
12	(2)	32	(5)	52	(4)	72	(3)	92	(5)
13	(4)	33	(5)	53	(1)	73	(2)	93	(3)
14	(1)	34	(4)	54	(3)	74	(4)	94	(3)
15	(5)	35	(5)	55	(2)	75	(4)	95	(1)
16	(2)	36	(1)	56	(4)	76	(5)	96	(3)
17	(2)	37	(5)	57	(1)	77	(1)	97	(5)
18	(3)	38	(2)	58	(5)	78	(3)	98	(2)
19	(4)	39	(4)	59	(3)	79	(1)	99	(4)
20	(3)	40	(3)	60	(1)	80	(5)	100	(4)

11. (3) The sentence is based on 'neither nor' construction.
12. (2) It conveys the proper meaning, i.e., employees' contribution towards the company's growth.
13. (4) It should be 'since many companies are'.
14. (1) 'Faster than that of' shows the correct comparison in the sentence.
15. (5) The sentence is correct.
16. (2) Use 'drawing' in place of 'draw'.
17. (2) Add to 'before stick'. Here an infinitive is required.
18. (3) Use 'had been' in place of 'were'. Past Perfect Tense is required in the second part of the sentence.
19. (4) Use 'to' in place of 'over'. Administer something to somebody is used.
20. (3) use 'about' in lace of 'in'.
26. (2) 'transformation' fits the blank appropriately.
27. (4) 'perfected' fits the blank appropriately.

28. (1) 'removing' fits the blank appropriately.
29. (5) 'inventions' fits the blank appropriately.
30. (3) 'irreversibly' fits the blank appropriately.

$$31. (5) ? = 1\frac{1}{4} + 1\frac{5}{9} \times 1\frac{5}{8} \div \frac{1}{6} = \frac{5}{4} + \frac{14}{9} \times \frac{13}{8} \times \frac{1}{13}$$

$$= \frac{5}{4} + \frac{7}{18} = \frac{45+14}{36} = \frac{59}{36} = 1\frac{23}{36}$$

$$32. (5) 289 = 17^{x/5} \Rightarrow 17^5 = 17^{x/5}$$

$$\frac{x}{5} = 2 \Rightarrow x = 2 \times 5 \Rightarrow x = 10$$

$$33. (5) ? = 0.01 \times 0.1 - 0.001 \div 10 + 0.01$$

$$= 0.001 - 0.001 \times \frac{1}{10} + 0.01$$

$$= 0.001 - 0.0001 + 0.01 = 0.0109$$

$$34. (4) 500 \times \frac{x}{100} = 300 \times \frac{y}{100}$$

$$\Rightarrow 5x = 3y$$

$$\Rightarrow y = \frac{5x}{3} \quad \dots(i)$$

$$\frac{xy \times 200}{100 \times 100} = 60$$

$$\Rightarrow xy = 3000$$

$$\Rightarrow x \times \frac{5x}{3} = 3000 \quad \left[\because y = \frac{5x}{3} \right]$$

$$\Rightarrow 5x^2 = 3000 \times 3$$

$$\Rightarrow x^2 = \frac{3000 \times 3}{5}$$

$$\Rightarrow x^2 = 1800 \Rightarrow x = \sqrt{1800} = \sqrt{2 \times 3 \times 3 \times 10 \times 10}$$

$$\therefore x = 30\sqrt{2}$$

$$35. (5) ? = (37.001)^2 = 1369.074 \approx 1370$$

$$36. (1) ? = 1011.11 + 110.1 + 111.01 = 1232.22 \approx 1230$$

$$37. (5) ? = 624.999 \times \frac{12.005}{100} = 75.0311 \approx 75$$

$$38. (2) ? = 16.007 \times 14.995 \times 6.080 = 1459.35 \approx 1440$$

$$39. (4) \text{ Required percentage} = \frac{31}{15} \times 100 = 206.67 \approx 207$$

$$40. (3) A = 35000 \times \frac{18}{100} \times \frac{3}{10} = 1890$$

$$B = 35000 \times \frac{22}{100} \times \frac{11}{20} = 4235$$

$$C = 35000 \times \frac{31}{100} \times \frac{3}{5} = 6510$$



$$D = 35000 \times \frac{15}{100} \times \frac{2}{5} = 2100$$

$$E = 35000 \times \frac{14}{100} \times \frac{1}{4} = 1225$$

Total number of males in all the organizations
= 1890 + 4235 + 6510 + 2100 + 1225 = 15960

41. (2) Total number of males in Organizations A and C

$$= 35000 \left(\frac{18}{100} \times \frac{30}{100} + \frac{31}{100} \times \frac{60}{100} \right)$$

$$= \frac{35000}{10000} (540 + 1860) = 3.5 \times 2400 = 8400$$

42. (1) Number of females in Organization B

$$= \frac{35000 \times 22 \times 9}{100 \times 20} = 3465$$

Number of females in organization E

$$= \frac{35000 \times 14 \times 3}{100 \times 4} = 3675$$

Required difference = 3675 - 3465 = 210

43. (3) In year 2007, Company A earn maximum amount of profit.

44. (3) Suppose in 2005, profit earned = T x

$$\therefore x \times \frac{135}{100} \times \frac{140}{100} = 7.56$$

$$\therefore x = \frac{7.56 \times 100 \times 100}{135 \times 140} = \text{T 4 lakh}$$

45. (5) Average percent increase in profit of Company A

$$= \frac{(25 + 30 + 4 - +45 + 35 + 30)\%}{6}$$

$$= \frac{(205)\%}{6} = 34.16\% \approx 34\%$$

- 46-50. Number of boys = $\frac{3}{8} \times 504 = 189$

Number of girls = 504 - 189 = 315

Girls participated in dance = $315 \times \frac{20}{100} = 63$

Remaining girls = 315 - 63 = 252

Girls participated in solo song = $\frac{2}{9} \times 252 = 56$

Girls participated in group song = $\frac{3}{9} \times 252 = 84$

Girls participated in drama = $\frac{4}{9} \times 252 = 112$

Boys participated in group song = $\frac{2}{3} \times 189 = 126$

Remaining boys = 189 - 126 = 63

Boys participated in Solo song = $\frac{4}{9} \times 63 = 28$

Boys participated in dance = $\frac{5}{9} \times 63 = 35$

46. (1) Required percentage

$$= \frac{\text{Boys participated in dance}}{\text{Total number of boys}} \times 100$$

$$= \frac{35}{189} \times 100 = 18.52 \approx 19\%$$

47. (1) Percentage of girls participated in solo song

$$= \frac{56}{504} \times 100 = 11.1 \approx 11\%$$

48. (2) Total number of girls participated in group Song and drama = 84 + 112 = 196

49. (1) Required ratio = Boys participated in solo song : girls participated in solo song = 28 : 56 = 1 : 2

50. (3) Required difference = Girls participated in dance - Boys participated in dance = 63 - 35 = 28

51. (5) Number of Injuries due to Cycle accidents

$$= 48000 \times \frac{10}{100} \times \frac{9}{16} = 300 \times 9 = 2700$$

52. (4) Deaths due to Car accidents

$$= 48000 \times \frac{15}{100} \times \frac{3}{8} = 2700$$

Total number of accidents due to Cars

$$= 48000 \times \frac{15}{100} = 7200$$

$$\text{Required percentage} = \frac{2700}{7200} \times 100 = 37.5\%$$

53. (1) Number of Injuries due to Bus accidents

$$= 48000 \times \frac{21}{100} \times \frac{8}{15} = 5376$$

$$\text{Required percentage} = \frac{5376}{48000} \times 100 = 11.2 \approx 11\%$$

54. (3) Speed of man (in m/s) = $\frac{\text{Length of the train (T)}}{12 \times 60}$

$$\text{Speed of the train (in m/s)} = \frac{\text{Length of the train (T)}}{54}$$

$$\text{Ratio} = \frac{\frac{T}{54}}{\frac{T}{12 \times 60}} = \frac{720}{54} = 40:3$$



55. (2) $x - 600 \times \frac{75}{100} \times \frac{2}{3} = 320$

$$x = 320 + \frac{600 \times 75 \times 2}{100 \times 3} = 620$$

56. (4) $7x + 2x + 5x + 6x = 360$
 $x = 18^\circ$

$$2x \times 2 + \frac{7x}{2} = 7.5x = 7.5 \times 18 = 135^\circ$$

57. (1) 3 men complete in the work 6 days.
 \therefore 1 man completes the work = $6 \times 3 = 18$ days
 5 women can complete the same work in 18 days.
 \therefore 1 women, complete the same works = $18 \times 5 = 90$ days.

Ratio = $\frac{90}{18} = 5$: i.e., 1 man = 5 women

4 men + 5 women = $4 \times 5 + 10 = 30$ women

Days = $\frac{90}{30} = 3$

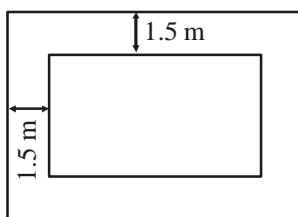
58. (5) $x + x + 1 + x + 2 + x + 3 + x + 4 = 270$
 $5x = 270 - 10 = 260$

$$x = \frac{260}{5} = 52$$

$x + 1 + x + 4 = 2x + 5 = 2 \times 52 + 5 = 109$

59. (3) Suppose the length of the field is x m.

So, the breadth of the field will be $\frac{3x}{4}$ m.



$$\Rightarrow x \times \frac{3x}{4} = 300$$

$$\therefore x^2 = \frac{300 \times 4}{3} = 400$$

$$x = \sqrt{400}$$

$X = 20$

\therefore Area of the garden

$$= \{(20 + 3)(15 + 3)\} - 300$$

$$= \{(23)(18)\} - 300 = 114 \text{ sq m}$$

60. (1) Suppose the original number is $(10x + x^2)$.

$$(10x + x^2) - (10x + x^2) = 54$$

$$\Rightarrow 10x^2 + x - 10x - x^2 = 54$$

$$\Rightarrow 9x^2 - 9x = 54$$

$$\Rightarrow x^2 - x = 6 \Rightarrow x^2 - x - 6 = 0$$

$$\Rightarrow x^2 - 3x - 2x - 6 = 0$$

$$\Rightarrow (x - 3)(x - 2) = 0$$

$$\Rightarrow x = 3$$

Original number = $10 \times 3 + (3)^2 = 30 + 9 = 39$

40% of original number = $39 \times \frac{40}{100} = 15.6$

61. (4) Suppose at the rate of 12% per annum he borrowed T x.

$$36480 - 30000 = \frac{x \times 12 \times 2}{100} + \frac{(30000 - x) \times 10 \times 2}{100}$$

$$\Rightarrow 6480 = \frac{24x}{100} + \frac{600000 - 20x}{100}$$

$$\Rightarrow 6480 \times 100 = 24x + 600000 - 20x$$

$$\Rightarrow 648000 = 4x + 600000$$

$$\Rightarrow 4x = 648000 - 600000 = 48000$$

$$\Rightarrow x = \frac{48000}{4} = \text{Rs. } 12000$$

62. (5) Suppose original fraction is $\frac{x}{y}$.

$$\therefore \frac{x + \frac{1}{4}x}{y - \frac{1}{3}y} = \frac{33}{64}$$

$$\Rightarrow \frac{4x + x}{4} \times \frac{3}{3y - y} = \frac{33}{64} \Rightarrow \frac{5x}{4} \times \frac{3}{2y} = \frac{33}{64}$$

$$\Rightarrow \frac{15x}{8y} = \frac{33}{64} \Rightarrow \frac{x}{y} = \frac{33}{64} \times \frac{8}{15} = \frac{11}{40}$$

63. (2) Suppose the number is x .

$$2x^2 - 11x = 21$$

$$\Rightarrow 2x^2 - 11x - 21 = 0$$

$$\Rightarrow 2x(x - 7) + 3(x - 7) = 0$$

$$\Rightarrow (x - 7)(2x + 3) = 0$$

$$\Rightarrow x = 7 \text{ or } -\frac{3}{2}$$

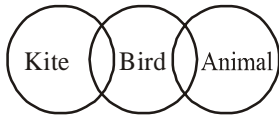
64. (2) Keeping E and N together and considering it as one letter, we have 5 letters which can be arranged in ${}^5P_5 = 5!$

Ways, but E and N can be put together in 2! Ways (i.e., EN, NE)

Hence, the total number of ways = $5! \times 2! = 240$



92. (5) According to statements, venn diagram is follow

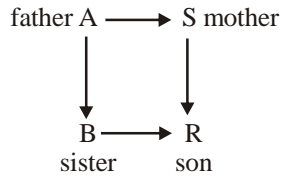


Conclusions

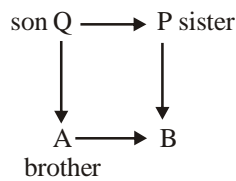
I. ✓

II. ✓

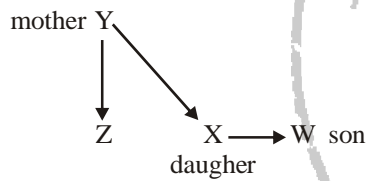
93. (3) $AB + R > S \rightarrow S$ is the wife of A



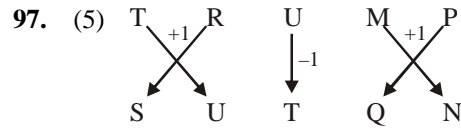
94. (3) $P + Q > A - B \rightarrow P$ is the niece of B.



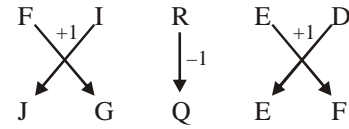
95. (1) $W > X < Y * Z \rightarrow W$ is the nephew of Z.



96. (3) Word 'VENT' is only one meaningful word with the fourth, fifth and tenth letters of the word TELEVISION.



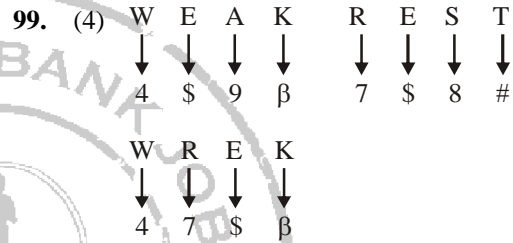
Similarly,



98. (2) On writing the word according to question, F P K J B S E R

Arranging in a alphabetical order,
B E F J K P R S

\therefore The sixth letter of this word from left = P



Similarly, KEWRA be coded as β \$ 7 9 4 in the same code.



Only 3 such pairs of letters are there in the word FORMATION.