

IBPS PO Preliminary -2021. IPP-2021-11004

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1 – 5. D A G C F E B

1. (2)
2. (1)
3. (4)
4. (3)
5. (4)
6. (1) The correct spelling is adorned.
7. (5) No error.
8. (1) Replace 'seen' with 'see'.
9. (3) The correct spelling is awkwardness.
10. (1) The correct spelling is fraternity.
11. (5)
12. (4)
13. (4)
14. (2)
15. (2)
16. (3)
17. (1)
18. (3)
19. (4)
20. (5)
21. (1)
22. (3)
23. (5)
24. (2)
25. (3)

26. (4)

27. (2)

28. (1)

29. (5)

30. (4)

31. (1) $x = \sqrt{1369} = 37 \dots\dots\dots (I)$

$y = \sqrt[3]{29791} = 31 \dots\dots\dots (II)$

$\therefore x > y$

32. (3) equn. (I) $\times 4$ + equn (II) $\times 3$

$$32x - 12y = 124$$

$$15x + 12y = 252$$

$$47x = 376$$

$\therefore x = 8$ and from this $y = 11$

$\therefore x < y$

33. (2) $20x^2 - 35x - 44x + 77 = 0$

$$5x(4x - 7) - 11(4x - 7) = 0$$

$$(4x - 7) (5x - 11) = 0$$

$$x = \frac{7}{4}, \frac{11}{5}$$

$$4y^2 + 16y - 7y - 28 = 0$$

$$4y(y+4) - 7(y+4) = 0$$

$$(4y - 7) (y + 4) = 0$$

$$y = -4, \frac{7}{4} \quad \therefore x \geq y$$

34. (4) $6x^2 + 8x + 21x + 28 = 0$

$$2x(3x + 4) + 7(3x + 4) = 0$$

$$(3x + 4) (2x + 7) = 0$$

$$x = -\frac{4}{3}, -\frac{7}{2}$$

$$6y^2 + 3y + 8y + 4 = 0$$

$$3y(2y + 1) + 4(2y + 1) = 0$$

$$(3y + 4) (2y + 1) = 0$$

$$\therefore y = -\frac{4}{3}, -\frac{1}{2} \quad \therefore x \leq y$$

35. (5) $x^2 + 9x - 6x - 54 = 0$

$$x(x + 9) - 6(x + 9) = 0$$

$$x = 6, -9$$

$$y^2 + 11y - 7y - 77 = 0$$

$$y(y + 11) - 7(y + 11) = 0$$

$$(y - 7) (y + 11) = 0$$

$$\therefore y = 7, -11$$

i.e. No relation between x & y

36. (2) $\frac{4}{3}\pi r^3 : a^3, \therefore r = \frac{a}{2}, \frac{4}{3}\pi\left(\frac{a}{2}\right)^3 = a^3,$

$$4\pi r^3 : 24a^3, \quad \pi = 6$$

37. (2) $\pi l : 2\pi rh : 2\pi r^2 \quad \therefore r = h \quad \therefore l = r\sqrt{2}$

$$\pi r \sqrt{2} : 2\pi r^2 : 2\pi r^2 = \sqrt{2} : 2 : 2 = 1 : \sqrt{2} : \sqrt{2}$$

38. (2) $r_1^2 h_1 : r_2^2 h_2, \quad 9 \times 6 : 25 \times 4$
 $54 : 100, \quad 27 : 50$
39. (2) If he works al 40 days, he get total
 $40 \times 10 = T 400,$ but get T 220
 $\therefore 400 - 220 = 180$
 Now on leave he losses his total T $(10 + 2) = T 12$
 So leave days = $\frac{180}{12} = 15$ days $\therefore \therefore \therefore$
 \therefore Working days = $40 - 15 = 25$ days
40. (4) $\frac{(10x + y) - (10y + x)}{10} = 3.6, \quad 9x - 9y = 36$
 $x - y = 4$
41. (2) Required average number of instruments manufactured
 $= \left(\frac{48 + 52 + 50 + 45 + 55 + 47}{6} \right)$ lakh
 $= \frac{297}{6}$ lakh = 4950000
 by Company C
42. (3) Instruments manufactured by , all the companies together
 in 2004
 $= (48 + 36 + 50 + 43 + 56 + 48) = 281$ lakh
 \therefore Required percentage = $\frac{56}{281} \times 100 = 19.92 = 20$
43. (1) Total number of instruments manufactured by Company A
 over the years
 $= (45 + 40 + 48 + 49 + 46 + 52)$ lakh = 280 lakh
 Total number of instruments manufactured by Company F
 over the years
 $= (49 + 45 + 48 + 44 + 50 + 52)$ lakh = 288 lakh
 Required percentage = $\frac{280}{288} \times 100 = 97.22 = 97$
44. (4) Total number of instruments manufactures by Company B
 over the years
 $= (35 + 32 + 36 + 37 + 30 + 38)$ lakh = 208 lakh
 Required percentage = $\frac{37}{208} \times 100 = 17.79 = 18$
45. (4) Avg. = $\frac{25 + 19 + 27 + 22 + 30 + 21}{6}$
 $= \frac{144}{6} = 24$ thousand
46. (3) Avg. $_{2012} = \frac{16 + 23 + 27 + 19 + 17 + 30}{6} = \frac{132}{6} = 22$ thousand
 \therefore Required % = $\frac{22}{25} \times 100 = 88\%$
47. (2) Total $_{2008} = 119$ thousand, $C_{total} = 140$ thousand
 \therefore Required % = $\frac{119}{140} \times 100 = 85\%$
48. (4) Avg. $_{2013} = \frac{141}{6} = 23.5$ thousand
 Avg. $_{2010} = \frac{117}{6} = 19.5$ thousand
 Difference = 4 thousand
49. (3) $D_{total} = 119$ thousand

$$T_{(2009+2011)} = 119 + 129 = 248 \text{ thousand}$$

$$\therefore \text{Required \%} = \frac{119 \times 100}{248} = 47.98\% \approx 48\%$$

50. (1) $? = (49)^3 \div (7)^2$
 $\frac{49 \times 49 \times 49}{7 \times 7} = 2401$
51. (5) $? = 28.217 - 14.241 + 6.873 - 2.434$
 $= 35.090 - 16.675 = 18.415$
52. (3) $\times 1 - 5^2, \times 1 - 4^2, \times 1 - 3^2, \times 1 - 2^2, \times 1 - 1^2 - \text{No.}$
 should be 33.
53. (1) $(\times 1 + 11), (\times 3 + 11), (\times 5 + 11), (\times 7 + 11) - \text{No.}$
 should be 321.
54. (3) $\times 3 + 1, \times 3 + 3, \times 3 + 5, \times 3 + 7 - \text{No.}$
 should be 1238.
55. (1) $+ 4^2, + 5^2, + 6^2, + 7^2, + 8^2, + - \text{No,}$
 should be 865
56. (4) $13^3, 11^3, 7^3, 13^3, 8^3, 5^3, 3^3,$
 512 is a cube of even number, rest of the cube of prime numbers.
57. (2) $\frac{t}{12} + \frac{t}{15} + \frac{t}{20} = 1, \quad \frac{5t + 4t + 3t}{60} = 1, \quad 12t = 60$
 $\therefore t = \frac{60}{12} = 5$ days
58. (3) $\frac{2}{12} + \frac{t}{15} + \frac{t-2}{20} = 1, \quad \frac{10 + 4t + 3t - 6}{60} = 1$
 $7t = 56, \quad t = \frac{56}{7} = 8$ days
59. (3) $\frac{1}{15} + \frac{1}{8} + \frac{1}{12}, \quad \frac{8t + 15 + 10}{120} = \frac{33}{120}$
 $\therefore \frac{120}{33} = 3 \times 3 = 9$ rest work = $120 - 99 = 21$
 Now B works, $9 + 1 = 10$ days,
 Remaining work = $21 - 15 = 6$
 $\frac{10}{10} = 10 \frac{3}{5}$ days
60. (2) $\frac{1}{15} + \frac{1}{8} + \frac{1}{12}, \quad \frac{8t + 15 + 10}{120} = \frac{33}{120} = \frac{120}{33}$
 A + B + C complete work in 3 days $33 \times 3 = 99$
 \therefore Remaining = $120 - 99 = 21$
 Now A work = $9 + 1$ days $21 - 8 = 13$ work left
 Now B complete = $10 \frac{13}{15} = 10 \frac{13}{15}$ days
61. (2) $\frac{t-3}{12} + \frac{t}{20} = 1, \quad \frac{5t - 15 + 3t}{60} = 1, \quad 8t = 60 + 15$
 $8t = 75, \quad t = \frac{75}{8} = 9 \frac{3}{8}$ days
62. (2) $? = 8537.986 - 2416.005 - 221.996$
 $= 8537.986 - 2638.001$
 $= 5899.985 = 5900$
63. (3) $? = 1019.999 \div 60.007$

$$\frac{1019.999}{60.007} = 16.998 = 17$$

64. (4) $? = 1111111 \div 1111 \div 11$

$$= 1111111 \times \frac{1}{1111 \times 11} = 9.09 = 9$$

$$? = \sqrt[3]{5000} = 17.1 = 17$$

65. (5)

66. (2)

67. (5)

68. (2)

69. (2)

70. (1)

71. (4) It is clear that the government is failed to control and prevent the economic slowdown and corruption.

72. (1) Building up a strong mechanism that prevent corruption is an effective step.

73. (2) It is obvious that corruption has badly effected the whole system and it is the soul assumption behind the information.

74. (1) The movement of Sunil are shown in fig. from A to D. Clearly $\triangle BCD$ is right angled at C .
 $BC^2 = CD^2 + BD^2$

$$BD = \sqrt{BC^2 - CD^2}$$

$$= \sqrt{13^2 - 12^2} = \sqrt{169 - 144} = \sqrt{25} = 5 \text{ KM.}$$

Therefore, Sunil is 5 km. east of central park.

75. (5) N is either brother or sister of R

76. (1)

77. (3)

78. (1)

79. (5)

80. (3)

81. (3) It is clearly inferred that the parking in the Ghaziabad city is a chaos and unorganized.

82. (4) Due to unorganized parking and absence of proper parking system citizens are forced to parks on the road which cause traffic hindrance and jams.

83. (5) To overcome from the parking problem the authorities must create underground and multi - level parking in congested areas of the city.

84. (3) The present scenario of transport is not well so airport should be more passenger friendly.

85. (4) Providing low - floor buses for easy go is the valid course of action for authorities.

86. (2) The high floor buses are mostly causing trouble or annoyance for passengers specially the eaderly passengers.

87. (5) $300 + 28 - 5 \times 32 + 14$

After changing the sign

$$300 - 28 \times 5 + 32 + 14$$

$$300 + 14 - \frac{28 \times 5}{32}$$

$$314 - 4.375 = 309.625$$

88 - 92.

I	accounts	5 th
G	IT	6 th
J	IT	7 th
D	Administration	8 th

88. (2)

89. (1)

90. (3)

91. (4)

92. (2)

93. (5)

94. (4)

It is clear that until schools becomes an options for the parents for their children schooling there is no end to nursery admission chaos.

95. (2) To prevent the nursery admission chaos, the quality education should be offered in government schools. Which can easily be affordable by parents.

96. (4)

97. (1)

98. (5)

99. (4)

100. (1)

Name of person	works in	Rank according to salary
F	accounts	1 st
H	administration	2 nd
E	accounts	3 rd
K	IT	4 th