SBI PO Preliminary Grand Test –SPP-180302

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1. (5) Run a separate medical course for three and a half years which can be taken up only by rural candidates who would ultimately serve in the rural areas.
2. (4) As these have failed to meet the norms set by the central government for running the college.
3. (4) Only (B) and (C)
4. (5) All (A), (B) and (C)
5. (3) The meaning of the word Shocking (Adjective) as used in the passage is : very bad; that offends or upsets people; that is morally wrong.
   The word Appalling (Adjective) means: shocking; extremely bad.
   Look at the sentences :
   The prisoners were living in appalling conditions.
   The bus service is shocking now.
6. (3) Dearth of teaching faculty.
7. (2) All (A), (B) and (C)
8. (2) To bring to light the problems faced by the health care sector in India despite changes suggested and goad the government into attaching priority to the sector.
9. (3) C 10. (4) D
11. (2) B 12. (1) A
13. (5) E
14. (5) The word Confiscate (Verb) means : to officially take something away from somebody; seize; grab.
15. (3) The word Possess (Verb) means: to have or own something; hold.
16. (4) Here the subject 'the private credit market' is in Singular Number that will take Singular Verb.
    Hence, 'weakens power of monetary policy' should be used.
17. (3) The sentence shows past time.
    Hence, use Simple Past here i.e. 'the firm managed through a difficult period'.
18. (4) Here the Verb will agree according to the Number of the word 'emission'.
    Hence, 'remains a cause of worry' should be used.
19. (2) It will be proper to use the Positive Degree.
    Hence, The rate of metabolism of a body is comparatively low .....will be correct sentence.
20. (4) Replace 'on strike since tomorrow' by 'on strike from tomorrow. Preposition 'since' is used to show a time in the past until a later past time or until now.
    Look at the sentence:
    He has been working in a bank since leaving school.
21. (1) 22. (3)
23. (2) 24. (2) 25. (4)
26. (5) Psychological 27. (4) waiting
28. (1) decisions 29. (2) safety
30. (3) unanimous
31. (5) I. $x^2 - x - 12 = 0$
    $\Rightarrow x^2 - 4x + 3x - 12 = 0$
    $\Rightarrow x(x - 4) + 3(x - 4) = 0$
    $\Rightarrow (x - 4)(x + 3) = 0$
    $\therefore x = 4$ or -3
    II. $y^2 + 5y + 6 = 0$
    $\Rightarrow y^2 + 3y + 2y + 6 = 0$
    $\Rightarrow y(y + 3) + 2(y + 3) = 0$
    $\Rightarrow (y + 3)(y + 2) = 0$
    $\therefore y = -3$ or -2
    Clearly, relation cannot be established.
32. (1) I. $x^2 - 8x + 15 = 0$
    $\Rightarrow x^2 - 5x - 3x + 15 = 0$
    $\Rightarrow x(x - 5) - 3(x - 5) = 0$
    $\Rightarrow (x - 3)(x - 5) = 0$
    $\therefore x = 3$ or 5
    II. $y^2 - 3y + 2 = 0$

$\Rightarrow y^2 - 2y - y + 2 = 0$
$\Rightarrow y(y-2) - 1(y-2) = 0$
$\Rightarrow (y-1)(y-2) = 0$
$\therefore y = 1$ or 2
Clearly, $x > y$

33. (3) I. $x^2 = 32 + 112 = 144$
$\therefore x = \sqrt{144} = \pm 12$
II. $y = \sqrt{169} \pm 13$

34. (2) I. $x = \sqrt{121} = 11$
II. $y^2 = 121$
$\therefore y = \sqrt{121} = \pm 11$

35. (4) I. $x^2 = 16$
$\Rightarrow x = \pm 4$
II. $y^2 - 9y + 20 = 0$
$\Rightarrow y^2 - 4y - 5y + 20 = 0$
$\Rightarrow y(y-4) - 5(y-4) = 0$
$\Rightarrow (y-5)(y-4) = 0$
$\therefore y = 5$ or 4
Clearly, $x \leq y$

36. (1) Let the number of tickets of each value be x.
$\therefore 55x + 85x + 105x = 2940$
$\Rightarrow 245x = 2940$
$\Rightarrow x = \frac{2940}{245} = 12$

37. (2) Rate $= \frac{SI. \times 100}{Principal \times Time}$
$= \frac{10800 \times 100}{22500 \times 4}$
= 12% per annum
$\therefore CI = P\left[\left(1 + \frac{R}{100}\right)^T - 1\right]$
$\therefore 22500\left[\left(1 + \frac{12}{100}\right)^2 - 1\right]$
$\therefore 22500\left[\left(\frac{28}{25}\right)^2 - 1\right]$
$\therefore 22500\left(\frac{784 - 625}{625}\right)$
$= \frac{22500 \times 159}{625}$ = Rs. 5724

38. (5) Jahnavi present age = 33 – 9 = 24
$\therefore$ Aarti's present age = 24 – 9 = 15 years
Now, Aarti : Savita = 5 : x
= 15 : 3x
$\therefore$ Savita's present age = 3x years
$\therefore 3x - 15 = 24$
$\Rightarrow 3x = 24 + 15 = 39$
$\Rightarrow x = \frac{39}{3} = 13$

39. (2) Gayathri's monthly income
$= \frac{32500 \times 115}{100} = Rs.36800$
$\therefore$ Ruby's, annual income
= Rs. $(12 \times 3 \times 36800)$ = Rs. 1324800

40. (4) Number of males in company
$= \frac{4800 \times 45}{100} = 2160$
$\therefore$ Number of males younger than 25 years
$= \frac{2160 \times 40}{100} = 864$

41-45. $\therefore$ 25% = 75
$\therefore 100\% = \frac{75}{25} \times 100 = 300$
$\therefore$ Total females = 300
Computer Science
$\Rightarrow \frac{300 \times 35}{100} = 105$

Civil Engineering
$\Rightarrow \frac{300 \times 5}{100} = 15$
Electrical Engineering
$\Rightarrow \frac{300 \times 20}{100} = 60$
Mechanical Engineering
$\Rightarrow \frac{300 \times 15}{100} = 45$
Bio-technology = 75
Total males = 700 - 300 = 400
Computer Science
$\Rightarrow \frac{400 \times 30}{100} = 120$
Civil Engineering
$\Rightarrow \frac{400 \times 15}{100} = 60$
Electrical Engineering
$\Rightarrow \frac{400 \times 18}{100} = 72$
Mechanical Engineering
$\Rightarrow \frac{400 \times 12}{100} = 48$

Bio-technology $= 400 \times \frac{25}{100} = 100$

41. (3) Required percent
$= \left(\frac{100 - 75}{75}\right) \times 100$
$= \frac{100}{3} = 33\frac{1}{3}\%$

42. (3) Required ratio = 120 : 105 = 8 : 7

43. (3) Required difference
= 72 + 48 – 60 – 45 = 15

44. (5) Civil Engineering + Computer Science :

Total students = 105 + 15 + 120 + 60 = 300
Male students = 180

$\therefore$ Required percent = $\frac{180}{300}\times 100 = 60$

45. (3) Required average

$\frac{45+75+48+100}{2} = \frac{268}{2} = 134$

46. (4) The pattern of the number series is :

$7 \times 2 - 2 = 12$

$12 \times 4 - (2 + 6) = 48 - 8 = 40$

$40 \times 6 - (8 + 10) = 240 - 18 = 222$

$222 \times 8 - (18 + 14) = 1776 - 32 = 1744 \neq \boxed{1742}$

$1744 \times 10 - (32 + 18) = 17440 - 50 = 17390$

47. (3) The pattern of the number series is :

$6\times 7 + 7^2 = 42 + 49 = 91$

$91\times 6 + 6^2 = 546 + 36 = 582 \neq \boxed{584}$

$582\times 5 + 5^2 = 2910 + 25 = 2935$

$2935\times 4 + 4^2 = 11740 + 16 = 11756$

$11756\times 3 + 3^2 = 35268 + 9 = 35277$

48. (5) The pattern of the number series is :

$9050 - 15^3 = 9050 - 3375 = 5675$

$5675 - 13^3 = 5675 - 2197 = 3478$

$3478 - 11^3 = 3478 - 1331 = 2147$

$2147 - 9^3 = 2147 - 729 = 1418$

$1418 - 7^3 = 1418 - 343 = 1075 \neq \boxed{1077}$

49. (4) The pattern of the number series is :

$1 = 1$

$2^2 = 4$

$3^3 = 27 \neq \boxed{25}$

$4^4 = 256$

$5^5 = 3125$

$6^6 = 46656$

50. (2) The pattern of the number series is :

$8424 \div 2 = 4212$

$4212 \div 2 = 2106$

$2106 \div 2 = 1053 \neq \boxed{1051}$

$1053 \div 2 = 526.5$

$526.5 \div 2 = 263.25$

51. (5) Required monthly expenses
= Rs. (9.65 + 2.75 + 5.42) thousand
= Rs. (17.82 × 1000) = Rs. 17820

52. (2) Monthly expenditure on food =

$= \text{Rs.}\left(\frac{7.50+8.55+11.40+17.80+9}{5}\right)\text{thousand}$

= Rs. 10.85 thousand = Rs. 10850

53. (1) It is obvious from the table.

54. (1) Required annual expenditure of C on education

$= \text{Rs.}\left(12\times 12.60\times\frac{105}{100}\right)\text{thousand}$

= Rs. 158.76 thousand = Rs. 158760

55. (4) Required ratio = 4.72 : 8.40 = 472 : 840 = 59 : 105

56. (1) $8 \times$ 20 men = $8 \times$ 32 women $\Rightarrow$ 5 men = 8 women
5 men + 8 women = 16 women

$M_1D_1 = M_2D_2$

$\Rightarrow 8\times 32 = 16\times D_2$

$\Rightarrow D_2 = \frac{8\times 32}{16}$ = 16 days

57. (5) Side of the square

$= \sqrt{1024}$ = 32 cm.

$\therefore$ Length of rectangle
= 2 × 32 = 64cm.
Breadth of rectangle = 32 – 12 = 20 cm.
$\therefore$ Required ratio = 64 : 20 = 16: 5

58. (5) x + x + 2 + x + 4 + x + 6 + x + 8 = 220
$\Rightarrow$ 5x + 20 = 220 $\Rightarrow$ x = 40
Second lowest number of different set
= 2 × 40 - 37 = 43
$\therefore$ Required sum
= 42 + 43 +44+45 + 46 = 220

59. (1) Bus fare = Rs. 420

Train fare = $2\times 420\times\frac{3}{4}$ = Rs. 630

$\therefore$ Required total fare
= Rs. (2 × 420 + 4 × 630) = Rs. (840 + 2520)
= Rs. 3360

60. (1) Speed of tractor = $\frac{360}{12}$ = 30 kmph

Speed of jeep = $30\times\frac{250}{100}$ = 75 kmph

$\therefore$ Speed of car = $\frac{3}{5}\times 75$ = 45 kmph

$\therefore$ Average speed of car and jeep together

$= \left(\frac{75+45}{2}\right)$ kmph = 60 kmph

61. (1) Total number of candidates clearing the entrance exam from state B in 2004

$= \left(\frac{1.04\times 51}{100}\right)\text{lakh}$

Total number of candidates clearing the entrance exam from state C in 2004 = $\left(\frac{1.11\times 32}{100}\right)\text{lakh}$

Required ratio =1.04 × 51:1.11 × 32
= 13 × 17 : 37 × 4 = 221 : 148

62. (3) Number of candidates clearing the entrance exam from state D :

Year 2008 $\Rightarrow \frac{1.83\times 60}{100}$ = 1.098 lakh

Year 2009 $\Rightarrow \frac{2.01\times 56}{100}$ = 1.1256 lakh

Note : In solving this question, calculation is not need. A minute observation of the table gives the result.

63. (4) Number of candidates not clearing the entrance exam from state A in 2007
= 59% of 1.98 lakh

$= \left(\frac{1.98 \times 59}{100}\right)$ lakh = 116820

64. (2) Required number of candidates clearing the exam

$= \left(\frac{1.42 \times 49}{100} + \frac{1.58 \times 26}{100}\right)$ lakh

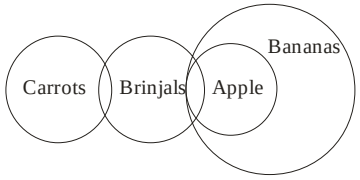
= (0.6958 + 0.4108) lakh = 110660

65. (4) Required average number of candidates

$= \left(\frac{1.88 + 1.83 + 2.01}{3}\right)$ lakh

$= 190666\frac{2}{3}$

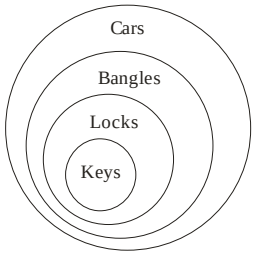
66. (2)



I. × II. ✓ III. ×

Only II follows.

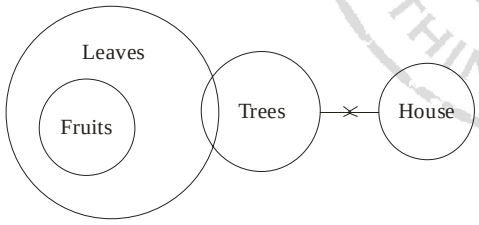
67. (5)



I. ✓ II. ✓ III. ✓

All follows.

68. (4)



I. } ✓ either I or III II. ×
III. }

Either I or III follow.

69. (5) The inference is definitely false. An example cannot support the inference.

70. (4) The inference seems to be false as the use of term 'most' makes the inference doubtful. But the first pars talks about the same.

71. (1) Clearly, the inference is definitely true.

72. (2) The advice is ment for all who are associated with business. Therefore, the inference is probably true.

73. (3) In the passage it is mentioned that the author saw the film 'The wizard Oz' three times. It does not imply that he watches most movies more than twice.

74. (3) All, I, II and III are required to answer the question.

P is the mother of B, D and M.

B and D are daughters of P.

75. (4) Statement I

E > B > A

Statement II

□ > □ > □ > C > □ > □

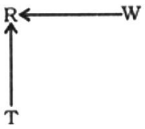
Statement III

□ > □ > □ > □ > D > F

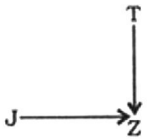
From all the three statements

E > B > A > C > D > F

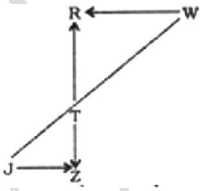
76. (5) Statement I



Statement II



From statements I and II



J is to the south-west of W.

77. (4) From all the three statements

Manoj's mother visited his house on Tuesday and Manoj did visit Chennai on Wednesday.

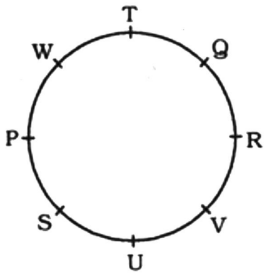
78. (1) From statement I and III

Now or never again → Tom ka na sa

again go now or never → na ho ka sa tom

The code for 'go' is 'ho'.

79-81. Sitting arrangement



79. (5) In none of pairs the third person is sitting between the first and the second persons.

80. (1) Q is to the immediate left of T.

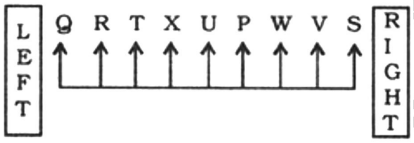
81. (3) U is second to the right of P.

82-86.

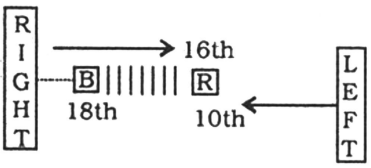
Day	Person	Colour
Monday	G	Pink
Tuesday	B	Silver

Wednesday	E	Blue
Thursday	A	Yellow
Friday	C	Green
Saturday	D	Orange
Sunday	F	Red

82. (1) G would attend a wedding on Monday.
83. (4) D likes orange colour.
84. (3) A would attend a wedding on Thursday. The one who likes Pink colour would attend a wedding three days before A, i.e., on Monday. Similar relation exists between all other combinations except in C-Yellow.
85. (5) A would attend a wedding on Thursday.
Thursday + 2 = Saturday
C would attend a wedding on Friday.
Friday + 2 = Sunday
B would attend a wedding on Tuesday.
Tuesday + 2 = Thursday
86. (2) B would attend a wedding immediately before E while A would attend a wedding immediately after E.
87. (4) Both the statements (A) and (B) are effects of independent causes.
88. (2) Clearly statement (B) is the cause and statement (A) is its effects.
89. (5) Both the statements (A) and (B) are effects of some common cause.
90. (1) Clearly statement (A) is the cause and statement (B) is its effect.
91. (1) Clearly statement (A) is the cause and statement (B) is its effect.
92-96.

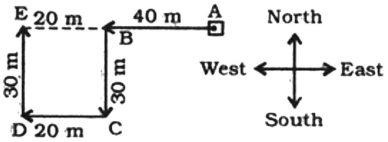


92. (5) V sits seventh to the right of Q.
93. (2) Q and S are seated at two extreme ends of the line.
94. (3) Three persons - T, X and U - are seated between R and P.
95. (4) T sits fifth to the left of V. Q sits fifth to the left of P. X sits fifth to the left of S.
96. (1) Seventh from the left $\Rightarrow$ W
Fifth from the right $\Rightarrow$ U
P sits exactly between U and W.
97. (3) Mihir's grandfather's only child means mother or father of Mihir. The girl is only daughter of Mihir's mother or father. Therefore, the girl is sister of Mihir.
98. (5)



R's position from the left = 25 – 16 + 1 = 10th
Thus, there are 7 children between R and B.

99. (2)



Required distance = AB + BE $\Rightarrow$ 40 + 20 = 60 m
100. (5)