RACE

SBI PO Preliminary Grand Test –SPP-180305
HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1. (2) As the temperatures may rise almost by an additional one degree and this may lead to severe climate change

2. (1) The temperature would rise from the current temperature by 2.2 degrees Celsius

3. (4) The carbon dioxide emissions will be about 750 ppm at the end of this century if unchecked.

4. (4) The ill-effects of the change in climate can be minimized

5. (5) To examine the impacts of emission cuts on climate

6. (2) Only (A) and (B)

7. (3) The meaning of the word Dramatic (Adjective) as used in the passage is : sudden, very great and often surprising; exciting and impressive; spectacular.
Look at the sentence:
The announcement had a dramatic effect on house prices.

8. (1) The meaning of the word Shrink (Verb) as used in the passage is : to become smaller; contract.
Look at the sentence:
The market for their products is shrinking.

9. (4) The meaning of the word Significant (Adjective) as used in the passage is : large or important enough to have an effect or to be noticed.

Its antonym should be unimportant.

10. (3) The word Diminish (Verb) means: to become or to make something become smaller, weaker etc; decrease.
Look at the sentence: The world's resources are diminishing
The antonym of diminished should be increased.

11. (1) In order to do something = with the purpose or intention of doing or achieving something.
Look at the sentences :
She arrived early in order to get a good seat.
Hence, In order to take their............ should be used here.
Police is generally used in Plural.

12. (2) Here, the commission (singular) has found.............should be used here.
Find $\Rightarrow$ found (Past) $\Rightarrow$ found (Past participle)
Found $\Rightarrow$ to start something; establish.
Found $\Rightarrow$ founded (Past) $\Rightarrow$ founded (Past participle).

13. (1) The event relates to the present and has effect on present. Hence, Present Perfect i.e., Social media has disclosed that ....should be used here.

14. (3) Here, For one this intangible sector has suddenly (Adverb) been witness (Noun)........should be used. Look at the structure of the sentence.

15. (4) In Passive Voice, V_3 i.e., default encouraged to put their.........should be used here.

16. (4)   17. (2)

18. (1)   19. (5)   20. (3)

21. (4) Idiom at loose ends means: having nothing to do and not knowing what you want to do.

22. (2) Here, was the one that should be used. Relative pronoun who is used to show which person or people you mean.

23. (4) in the way of

24. (5) No correction required

25. (5) No correction required

26. (4) perfected

27. (3) modifications

28. (1) designed

29. (2) demands

30. (3) vogue

31. (5) I. $\Rightarrow p^2 + 3p + 2p + 6 = 0$
$\Rightarrow (p + 3) +2 (p + 3) = 0$
$\Rightarrow (p + 3)(p + 2) = 0$
$\Rightarrow p = 2$ or- 3
II $\Rightarrow q^2 + q + 2q + 2 = 0$
$\Rightarrow q(q + 1) + 2 (q + 1) = 0$
$\Rightarrow (q + 1)(q + 2) = 0$
$\Rightarrow q = - 1$ or - 2
Obviously $p \leq q$

32. (4) I. $\Rightarrow p = \pm 2$
II. $\Rightarrow q^2 + 2q + 2q + 4 = 0$
$\Rightarrow q(q + 2) + 2 (q + 2) = 0$
$\Rightarrow (q + 2) (q + 2) = 0$
$\Rightarrow q = - 2$

Obviously, $p \geq q$

33. (2) I. $\Rightarrow p^2 + p - 56 = 0$

$\Rightarrow p^2 + 8p - 7p - 56 = 0$

$\Rightarrow p(p + 8) - 7 (p + 8) = 0$

$\Rightarrow (p + 8) (p - 7) = 0$

$\Rightarrow p = 7$ or $- 8$

II. $\Rightarrow q^2 - 8q - 9q + 72 = 0$

$\Rightarrow q (q - 8) - 9 (q - 8) = 0$

$\Rightarrow (q - 8) (q - 9) = 0$

$\Rightarrow q = 8$ or 9

Obviously, $p < q$

34. (1) We have,

$3p + 2q = 58$ .....(i)

$4p + 4q = 92$

$\Rightarrow 2p + 2q = 46$ .....(ii)

By (i) - (ii) we get

$p = 12$

From (i), $3 \times 12 + 2q = 58$

$\Rightarrow 2q = 58 - 36 = 22$

$\Rightarrow q = 11$

Hence, $p > q$

35. (2) I. $\Rightarrow 3p^2 + 15p + 2p + 10 = 0$

$\Rightarrow 3p(p + 5) + 2 (p + 5) = 0$

$\Rightarrow (p + 5) (3p + 2) = 0$

$\Rightarrow p = -5$ or $-\dfrac{2}{3}$

II. $\Rightarrow 10q^2 + 5q + 4q + 2 = 0$

$\Rightarrow 5q (2q + 1) + 2 (2q + 1) = 0$

$\Rightarrow (2q + 1) (5q + 2) = 0$

$\Rightarrow q = -\dfrac{1}{2}$ or $-\dfrac{2}{5}$

Obviously, $p < q$

36. (2) C.P. of wristwatch

$= \dfrac{100}{100 - loss\%} \times S.P.$

$= Rs. \left(\dfrac{100}{75} \times 2400 \right) = Rs. 3200$

$\therefore$ Required S.P. of wristwatch$= Rs. \left(\dfrac{125}{100} \times 3200 \right) = Rs.$ 4000

37. (4) Fifth number

$= 5 \times 56 - 4 \times 54$

$= 280 - 216 = 64$

38. (5) Let the number be x.

$\therefore x + \dfrac{7}{9} \times \dfrac{35}{100} \times 900 = 325$

$\Rightarrow x + 245 = 325$

$\Rightarrow x = 325 - 245 = 80$

39. (1) $x + 4x + 5x + 60 = 360"$

$\Rightarrow 10x = 300° \Rightarrow x = 30$

$\therefore$ Required difference $= 5x - x$

$= 4x = 4 \times 30 = 120°$

40. (2) On dividing 1740 by 88, the remainder = 68

$\therefore$ Required number = 68

41. (5) Number of females in 2003

College A $\Rightarrow \dfrac{2600}{2} = 1300$

College B $\Rightarrow \dfrac{2500 \times 44}{100} = 1100$

$\therefore$ Required ratio

$= 1300 : 1100$

$= 13 : 11$

42. (3) Number of females in 2004 :

College A $\Rightarrow \dfrac{2800 \times 60}{100} = 1680$

College B $\Rightarrow \dfrac{2500 \times 52}{100} = 1300$

$\therefore$ Required difference

$= \dfrac{1}{2} (1680 + 1300 - 1300 - 1100)$

$= \dfrac{1}{2} \times 580 = 290$

43. (1) Total students in college B in 2002 = 2400

Required percent

$= \dfrac{2400 - 1600}{1600} \times 100 = 50\%$

44. (5) Total students in 2003 = 2600 + 2500 = 5100

45. (1) Number of males in 2001 :

College A $\Rightarrow \dfrac{1200 \times 60}{100} = 720$

College B $\Rightarrow \dfrac{2600 \times 55}{100} = 1430$

Number of females in 2001 :
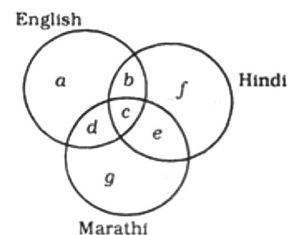
College A $\Rightarrow$ 1200 - 720 = 480

College B $\Rightarrow$ 2600 - 1430 = 1170

Required difference

$= (720 + 1430) - (480 + 1170)$

$= 2150 - 1650 = 500$

46-50.

According to the question,

a = 650; f = 550; g = 450; c = 100;

b + c = 200; c + e = 400

c + d = 300

$\therefore$ b = 100, e = 300 and d = 200

46. (3) Required difference = 300 - 200 = 100

47. (4) Number of member who read at least two newspapers

$= 200 + 400 + 300 + 100 = 1000$

48. (3) Number of members reading Hindi newspaper = b + c + e + f

$= 100 + 100 + 300 + 550 = 1050$

49. (2) Number of members reading only one newspaper = a + f + g

= 650 + 550 + 450 = 1650

50. (5) Number of newspaper readers = a + b + c + d + e + f + g
650 + 100 + 100 + 200 + 300 + 550 + 450 = 2350
∴ Number of members reading no newspaper
= 2800 - 2350 = 450

51. (3) A's present age = 2x years
B's present age = 3x years
According to the question,
3x + 16 = 2(2x + 4)
⇒ 3x + 16 = 4x + 8
⇒ 4x - 3x = 16 - 8
⇒ x = 8 years
= Required difference

52. (5) $C.I. = P\left[\left(1+\frac{R}{100}\right)^T -1\right]$

$S.I. = \frac{P \times R \times T}{100}$

According to the question,

$2P\left[\left(1+\frac{10}{100}\right)^2 -1\right] = \frac{Px \times 3}{100}$

$\Rightarrow 2\left[\left(1+\frac{1}{10}\right)^2 -1\right] = \frac{3x}{100}$

$\Rightarrow 2\left[\left(\frac{11}{10}\right)^2 -1\right] = \frac{3x}{100}$

$\Rightarrow 2\left(\frac{121}{100} -1\right) = \frac{3x}{100}$

$\Rightarrow \frac{2 \times 21}{100} = \frac{3x}{100}$

$\Rightarrow 3x = 2 \times 21$

$\Rightarrow x = \frac{2 \times 21}{3} = 7 \times 2 = 14$

53. (2) Total possible outcomes = n(S)
Selection of 4 marbles out of 15 marbles.

$^{15}C_4 = \frac{15 \times 14 \times 13 \times 12}{1 \times 2 \times 3 \times 4} = 1365$

When no marble is blue, favourable number of cases n(E)
= Selection of 4 marbles out of 11 marbles

$^{11}C_4 = \frac{11 \times 10 \times 9 \times 8}{1 \times 2 \times 3 \times 4} = 330$

∴ Required probability $= 1 - \frac{n(E)}{n(S)}$

$= 1 - \frac{330}{1365} = 1 - \frac{22}{91} = \frac{69}{91}$

54. (5) Total possible outcomes = n(S)

$^{15}C_2 = \frac{15 \times 14}{1 \times 2} = 105$

Favourable number of cases = n(E) = Selection of 2 marbles out of 6 red marbles

$^6C_2 = \frac{6 \times 5}{1 \times 2} = 15$

∴ Required probability = $\frac{n(E)}{n(S)} = \frac{15}{105} = \frac{1}{7}$

55. (3) Total possible outcomes = n(S)
$^{15}C_3 = \frac{15 \times 14 \times 13}{1 \times 2 \times 3} = 455$

Favourable number of cases = n(E) = $^4C_2 \times ^3C_1$

$= \frac{4 \times 3}{1 \times 2} \times 3 = 18$

Required probability $= \frac{18}{455}$

56. (5) The given number series is based on the following pattern:
487.5 – 357.5 = 130
357.5 – 247.5 = 110
247.5 – 157.5 = 90
157.5 – 87.5 = 70
87.5 – 37.5 = 50 ≠ $\boxed{40}$
37.5 – 7.5 = 30
Clearly, 47.5 is the wrong number. It should be replaced by 37.5.

57. (3) The given number series is based on the following pattern
13 + 3 = 16
16 + 5 = 21
21 + 7 = 28 ≠ $\boxed{27}$
28 + 11 = 39
39 + 13 = 52
52 + 17 = 69
Clearly, 27 is the wrong number. It should be replaced by 28.

58. (3) The given number series is based on the following pattern:
1500 + 81 = 1581
1581 + 83 = 1664
1664 + 85 = 1749
1749 + 87 = 1836 ≠ $\boxed{1833}$
1836 + 89 = 1925
1925 + 91 = 2016
Clearly, 1833 is the wrong number. It should be replaced by 1836.

59. (2) The given number series is based on the following pattern:
66 + 25 = 91
91 + 29 = 120
120 + 33 = 153
153 + 37 = 190
190 + 41 = 231 ≠ $\boxed{233}$
231 + 45 = 276
Clearly, 233 is the wrong number. It should be replaced by 231.

60. (1) The given number series is based on the following pattern :
11 × 11 × 11 = 1331
13 × 13 × 13 = 2197
15 × 15 × 15 = 3375
17 × 17 × 17 = 4913 ≠ $\boxed{4914}$
19 × 19 × 19 = 6859
Clearly, 4914 is the wrong number. It should be replaced by 4913.

61. (1) Required average monthly salary

$$= \frac{15000 + 15000 + 30000}{3} = \text{Rs. } 20000$$

62. (2) Total monthly salary of all the five persons in 2008 = Rs. 75 thousand
Arvind's total monthly salary = Rs. 45 thousand

Required percentage $= \frac{45}{75} \times 100 = 60\%$

63. (4) Earning of each one over all the years :
Sumit = Rs. 60 thousand
Anil = Rs. 40 thousand
Jyoti = Rs. 75 thousand
Arvind = Rs. 45 thousand
Poonam = Rs. 60 thousand

64. (3) Required percentage

$$= \frac{25 - 20}{25} \times 100 = 20\%$$

65. (2) After an increase of 30% Jyoti's salary in 2010

$$= \frac{30 \times 130}{100} = \text{Rs. } 39 \text{ thousand}$$

66. (2) $R > O = A > S < T$
$O > T$: Not True
$S < R$: True
$T > A$: Not True
$S = O$: Not True as $O > S$
$T < R$: Not True

67. (4) $P > L \geq \quad A \geq N = T$
$P > A$: True
$T = N \leq A \leq L$
Therefore, $T \leq L$

68. (4) $B > L = O = N \geq D$
Now, $B > N$ and $D \leq L$

69-70. (i) $P @ Q \Rightarrow P < Q$
Therefore, $P > Q$ or $P = Q$
Thus, $P \geq Q$
(ii) $P \# Q \Rightarrow P > Q$ and $P \neq Q$
Therefore, $P < Q$
(iii) $P \$ Q \Rightarrow P < Q$ and $P > Q$
Therefore, $P = Q$
(iv) $P \star Q \Rightarrow P > Q$
Therefore, $P < Q$ and $P = Q$
Thus, $P \leq Q$
(v) $P \% Q \Rightarrow P < Q$ and $P \neq Q$
Therefore, $P > Q$

@ $\Rightarrow \geq$	# $\Rightarrow <$
$ $\Rightarrow =$	* $\Rightarrow \leq$
% $\Rightarrow >$	

69. (3) Statements
$M \$ K \Rightarrow M = K$
$D * K \Rightarrow D \leq K$
$R \# K \Rightarrow R < K$
Therefore,
$R < M = K \geq D$
Conclusions
I. $D \$ M \Rightarrow D = M$: Not True
II. $M \% D \Rightarrow M > D$: Not True
D is either smaller than or equal to M. Therefore, either Conclusion I or II is true.

70. (4) Statements
$F * M \Rightarrow F \leq M$
$M \% R \Rightarrow M > R$
$F @ F \Rightarrow E \geq F$
Therefore, $F \geq F \leq M > R$
Conclusions
I. $M \% E \Rightarrow M > E$: Not True
II. $R @ E \Rightarrow R \geq E$: Not True

71-75.

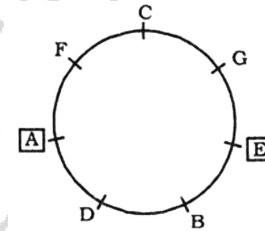| Friends	Area	Hobby
Hetal	Vikhroli	Singing
Jayshreeeee	Thane	Drawing
Rohini	Dadar	Reading
Meena	Kanjurmarg	Cooking
Nidhi	Mulund	Travelling
Swati	Matunga	Dancing

71. (2) Swati's hobby is dancing.
72. (4) Hetal's hobby is singing.
73. (3) Nidhi's hobby is travelling.
74. (1) Jayshree stays in Thane.
75. (4) Rohini stays in Dadar.
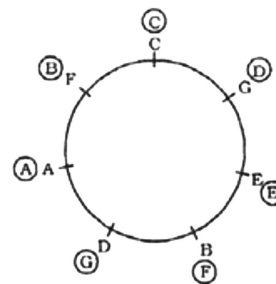76-80. Sitting arrangement

76. (3) A and E are facing opposite to the centre.
77. (4) B is sitting second to the left of A.
78. (2) G is sitting to the immediate left of E.
79. (5) F is third to the left of B.
80. (3)

81. (5) If many manufacturing companies would shift their bases to the rural areas of the country, job opportunities will be created in the rural areas Therefore, migration of people from rural to urban areas in search of jobs may reduce.
82. (1) Obviously option (1) is an assumption.
83. (4) None of the courses of action is suitable for pursuing. If the company Lixus would not manufacture Ball point pens, some other company may introduce Ball point pens in the market. Similarly, some other company may introduce gel-ink pens in the market.
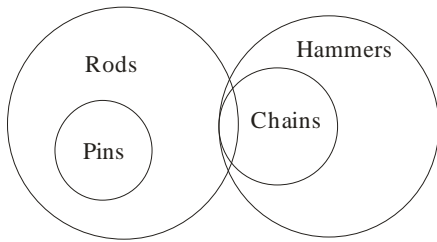84. (4) As the recession is world-wide employment scenario in other countries would also have adversely affected.

Therefore, course of action I is not suitable for pursuing.
Course of action II lacks practical approach.
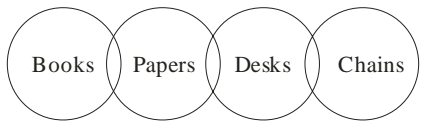
85. (4)   None of the courses of action is suitable for pursuing.

86. (4)

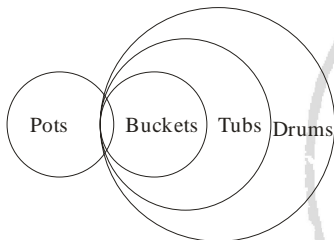

I) ⎫
    ⎬ ✗ Either I (or) III   II) ✓
III) ⎭

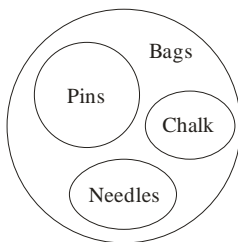Therefore Either I (or) III and II follow.

87. (1)

I) ✗   II) ✗   III) ✗
Therefore None follows.

88. (2)

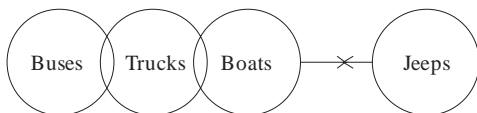I) ✓   II) ✗   III) ✓
Only I and III follows.

89. (3)

I) ⎫
    ⎬ ✗ Either I (or) III   II) ✗
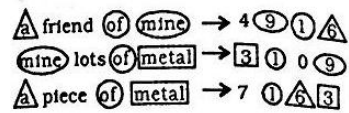III) ⎭

Therefore Either I (or) III follows.

90. (1)

I) ✗   II) ✗   III) ✗
Therefore None follows.

91. (2)   Statement B
92. (3)   Statement E
93. (1)   Statement A
94. (5)   Statements B and D
95. (1)   Option (1) is an assumption.

96-100.

96. (4)   The code for 'piece' is 7.
97. (2)   '9' stands for 'mine'.
98. (3)   a ⇒ 6; of ⇒ 1; mine ⇒ 9. The code for 'plea sure' may be '2'
99. (4)   'O' stands for 'lots'.
100. (5)   7 ⇒ piece; 3 ⇒ metal. '8' may represent 'Large'.