SBI PO Preliminary Grand Test –SPP-180418

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1.(3) Passing (Adjective) = momentary; brief; lasting for a short time.
Permanent (Adjective) = lasting for a long time.
Look at the sentences :
He makes only a passing reference to the theory in his book.
The accident has not done any permanent damage.

2. (1)

3.(2) Spurt (Noun) = a sudden increase in speed, effort, activity or emotion for a short period of time.
Drop (Noun) = decrease; reduction.
Look at the sentence :
Babies get very hungry during growth spurts.
During recession many companies faced sharp drop in profits.

4.(5) Fuel (Verb) = to increase something; to encourage; to make something stronger; stimulate.
Look at the sentence :
Higher salaries helped to fuel inflation.

5. (5) 6. (5)
7. (4) 8. (4) 9. (2)

10.(4) Concede (Verb) = to admit that something is true.
Look at the sentence :
He was forced to concede that there might be difficulties.

11. (1) (A) 12. (2) (B)
13. (1) (F) 14. (3) (C)
15. (2) (E)

16. (2) Here, subject (profitability of fleet operators) is singular. Hence, has improved due to a decline .... should be used.

17. (4) Here, subject (true history) is singular. Hence, true history interests us a lot .... should be used.

18. (3) Here, cooperation, restricting (Gerund) itself to .... should be used. It is not proper to use 'for' here.

19. (2) Here, it is Preposition/Adverb related error. Hence, absolutely (Adverb) no shortage of .... should be used.

20. (4) Raise = to increase the level or amount of something.
Rise = to reach a higher level ; move upwards.
Hence, rising vegetable prices kept (V_2)..... should be used here. Past time is evident.

21. (2) than 22. (4) is
23. (3) between 24. (5) frequency
25. (1) degradation 26. (2) by
27. (3) misfortunes 28. (5) like
29. (4) According 30. (1) endure

31. (3) $4 \times 1 + 2 = 4 + 2 = 6$
$6 \times 2 + 3 = 12 + 3 = 15 \neq \boxed{18}$
$15 \times 3 + 4 = 45 + 4 = 49$
$49 \times 4 + 5 = 196 + 5 = 201$
$201 \times 5 + 6 = 1005 + 6 = 1011$

32. (5) $48 \times \frac{3}{2} = 72; 72 \times \frac{3}{2} = 108$
$108 \times \frac{3}{2} = 162; 162 \times \frac{3}{2} = 243$
$243 \times \frac{3}{2} = 364.5 \neq \boxed{366}$

33. (1) $2 \times 6 + 7 \times 6 = 12 + 42 = 54$
$54 \times 5 + 6 \times 5 = 270 + 30 = 300$
$300 \times 4 + 5 \times 4 = 1200 + 20 = 1220$
$1220 \times 3 + 4 \times 3 = 3660 + 12 = 3672 \neq \boxed{3674}$
$3672 \times 2 + 3 \times 2 = 7344 + 6 = 7350$

34. (2) $2^3 = 8 : 3^3 = 27$
$4^3 = 64 : 5^3 = 125$
$6^3 = 216 \neq \boxed{218}$
$7^3 = 343$

35. (4) $19 + 7^2 = 19 + 49 = 68$
$68 + 6^2 = 68 + 36 = 104 \neq \boxed{102}$
$104 + 5^2 = 104 + 25 = 129$
$129 + 4^2 = 129 + 16 = 145$
$145 + 3^2 = 145 + 9 = 154$

36. (4) Total number of students studying B.Sc. in all the colleges together
$= 350 + 325 + 300 + 375 + 425 = 1775$

37. (3) Total number of students studying B.Sc. in colleges C and E = 300 + 425 = 725
Total number of students studying B.A. in colleges A and B = 275 + 300 = 575
$\therefore$ Required ratio = 725 : 575 = 29 : 23

38. (1) Total number of students studying in different streams in all the colleges:
B.Sc. $\rightarrow$ 1775
B.A. $\rightarrow$ 275 + 300 + 325 + 450 + 325 = 1675
B.Com. $\rightarrow$ 425 + 475 + 325 + 425 + 225 = 1875
$\therefore$ Required ratio = 1775 : 1675 : 1875
= 71 : 67 : 75

39. (5) Number of students studying B. Com. in college C = 325
Total number of students studying B. Corn = 1875
Required percentage $= \frac{325}{1875} \times 100 = 17$

40. (2) Total number of students in college B = 300 + 325 + 475 = 1100
Number of students studying B.A. in college B = 300
$\therefore$ Required percentage = $\frac{300}{1100} \times 100 = 27.27$

41. (5) Number of girls in all departments
= 140 + 300 + 180 + 250 + 240 = 1110
$\therefore$ Required percentage $= \frac{300}{1110} \times 100 = 27$

42. (4) Total number of boys in all the departments
= 80 + 200 + 100 + 150 + 120 = 650
number of girls = 1110
$\therefore$ Required difference = 1110 - 650 = 460

43. (3) Average number of boys $= \frac{650}{5} = 130$

44. (1) Number of all boys = 650
Number of boys from Anthropology department = 100
$\therefore$ Required percentage $= \frac{100}{650} \times 100 = 15.38 = 15$

45. (2) Number of girls from Philosophy department = 140
Number of girls from Psychology department = 240
Required ratio = 140 : 240 = 7 : 12

46. (1) C.P. of half of articles = Rs. x (let)
According to the question,
$x \times \frac{115}{100} = 22103 \Rightarrow x = \frac{22103 \times 100}{115}$ = 19220
C.P. of all articles = 2 $\times$ 19220 = Rs. 38440
For profit of 25%,
Total S.P. = $\frac{38440 \times 125}{100}$ = Rs. 48050
$\therefore$ Required S.P.= Rs. (48050 - 22103) = Rs. 25947

47. (1) Side of square = $\frac{\text{Diagonal}}{\sqrt{2}} = \frac{9\sqrt{2}}{\sqrt{2}}$
= 9 metre
Height of triangle = 4 $\times$ 9 = 36 metre
Again, side of second square = $\sqrt{784}$ = 28 metre
= Base of triangle
$\therefore$ Area of triangle = $\frac{1}{2}$ $\times$ base $\times$ height
= $\frac{1}{2}$ $\times$ 28 $\times$ 36 = 504 sq. metre.

48. (1) Amount invested in scheme B = Rs. x (let)
$\therefore$ Amount invested in scheme A = Rs. (16000 – x)
According to the question,

$$P_1\left[\left(1+\frac{R_1}{100}\right)^T - 1\right] + \frac{P_2 R_2 T}{100} = 3504$$

$$\Rightarrow (16000 - x)\left[\left(1+\frac{10}{100}\right)^2 - 1\right] + \frac{x \times 12 \times 2}{100} = 3504$$

$$\Rightarrow (16000 - x)\left[\left(\frac{11}{10}\right)^2 - 1\right] + \frac{24x}{100} = 3504$$

$$\Rightarrow (16000 - x) \times \left(\frac{121}{100} - 1\right) + \frac{24x}{100} = 3504$$

$$\Rightarrow (16000 - x) \times \frac{21}{100} + \frac{24x}{100} = 3504$$

$$\Rightarrow 16000 \times 21 - 21x + 24x = 350400$$

$\Rightarrow$ 3x = 350400- 336000 = 14400
$\Rightarrow$ x = 14400 $\div$ 3 = Rs. 4800

49. (3) Simar's present age = x years
Ravi's present age = (x + 4) years After 4 years,
$\frac{x+4+4}{x+4} = \frac{9}{8} \Rightarrow \frac{x+8}{x+4} = \frac{9}{8}$
$\Rightarrow$ 9x + 36 = 8x + 64
$\Rightarrow$ 9x - 8x = 64 - 36
$\Rightarrow$ x = 28
$\therefore$ Ravi's age 15 years ago = x + 4 - 15 = x - 11
= 28 - 11 = 17 years

50. (5) Ratio of the equivalent capitals of A, B and C for 1 month
= (33600 $\times$ 12) : (23100 $\times$ 9) : (18900 $\times$ 6)
= (336 $\times$ 12) : (231 $\times$ 9) : (189 $\times$ 6) = 448 : 231 : 126
Sum of ratios = 448 + 231 + 126 = 805
$\therefore$ C's share = $\frac{126}{805} \times 26450 = \text{Rs.}4140$

51. (5) Required percentage
= $\frac{4900}{5640} \times 100 = 87\%$

52. (2) Number of children in the localities H and I
= $\frac{5200 \times 13}{100} + \frac{6020 \times 10}{100}$
= 676 + 602 = 1278

53. (4) Number of women :
Locality G $\Rightarrow \frac{4850 \times 44}{100} = 2134$
Locality H $\Rightarrow \frac{5200 \times 39}{100} = 2028$
Locality J $\Rightarrow \frac{4900 \times 41}{100} = 2009$

54. (3) Number of men and children in locality I
$= \frac{6020 \times 65}{100} + \frac{6020 \times 10}{100}$
$= \frac{6020 \times 75}{100} = 4515$

55. (1) Required ratio
= $\frac{5640 \times 55}{100} : \frac{5200 \times 48}{100}$
= 517 : 416

56. (3) In x litres of mixture,

Milk = $\frac{9x}{13}$ litres

Water = $\frac{4x}{13}$ litres

From statement I,
In 60% mixture,

Milk = $\left(\frac{3}{5}\times\frac{9x}{13}\right)$ litres

= $\frac{27x}{65}$ litres

Water = $\frac{3}{5}\times\frac{4x}{13}=\frac{12x}{65}$ litres

$\therefore \frac{\frac{12x}{65}+6}{\frac{3x}{5}+6}=\frac{40}{100}=\frac{2}{5}$

$\Rightarrow \frac{12x}{13}+30=\frac{6x}{5}+12$

$\Rightarrow \frac{6x}{5}-\frac{12x}{13}=30-12$

$\Rightarrow \frac{78x-60x}{65}=18$

$\Rightarrow$ 18x = 18 × 65

$\Rightarrow x=\frac{18\times65}{18}=65$ litres

From statement II,
Remaining mixture

$=\frac{4x}{5}\times\frac{4}{5}=\frac{16x}{25}$ litres

Quantity of milk = $\frac{16x}{25}\times\frac{9}{13}$

$\therefore \frac{16x\times9}{25\times13}=28.8$

$\Rightarrow x=\frac{28.8\times25\times13}{16\times9}$ = 65litres

57. (1) From statement I,

(A + B)'s 1 day's work = $\frac{3}{20}$

(B + C)'s 1 day's work = $\frac{3}{40}$

(C + A)'s day's work = $\frac{7}{80}$

On adding all three,

2 (A + B + C)'s 1 day's work $=\frac{3}{20}+\frac{3}{40}+\frac{7}{80}$

$=\frac{12+6+7}{80}=\frac{25}{80}$

$\Rightarrow$ (A + B + C)'s 1 day's work = $\frac{25}{160}=\frac{5}{32}$

$\therefore$ Required time = $\frac{32}{5}=6\frac{2}{5}$ day

Statement II gives no result.

58. (5) From statements I and II,

πr^2h = 4158

$2\pi rh$ = 1485

By solving these we get value of h.

59. (1) Let the marked price of pen be Rs. x.
From statement I,

$x\times\frac{75}{100}=\frac{480\times90}{100}$

$\Rightarrow x=\frac{480\times90}{75}=$ Rs.576

Statement II gives no result.

60. (5) From both statements, Speed of boat in still water = x kmph.
Rate downstream = (x + 4) kmph.
Rate upstream = (x - 4) kmph.

$\therefore (x-4)\times\frac{40}{60}=(x+4)\times\frac{24}{60}$

$\Rightarrow$ (x - 4) × 5 = (x + 4) × 3

$\Rightarrow$ 5x - 20 = 3x + 12

$\Rightarrow$ 2x = 32

$\Rightarrow$ x = 16 kmph

$\therefore$ Rate downstream
= 20 kmph

$\therefore$ Distance covered in 36 minutes

= $20\times\frac{36}{60}=$ 12 km.

61. (5) ? = $4096\times\frac{2}{7}\times\frac{3}{4}=880$

62. (1) ? = 400 ÷ (2.5 × 7) = 22

63. (4) ? = $\frac{366\times74}{100}+\frac{317\times12.6}{100}$

$=\frac{370\times74}{100}+\frac{300\times13}{100}$ = 270 + 39 = 309

$\therefore$ Required answer = 310

64. (3) $?=\sqrt{746}\times\sqrt{93}\times\sqrt{25}$
= 27 × 9.5 × 5 = 1282.5

$\therefore$ Required answer = 1300

65. (2) $?=\frac{4563}{63}\times2.5=180$

66. (3) 67. (2)
68. (5) 69. (4) 70. (4)

71 -75. After careful analysis of the given input and various steps of rearrangement, it is evident that in each step two elements (one word and one number) are rearranged. In the first step, the lowest number moves to the extreme left position and the word which comes last in the alphabetical order moves to the second position from the left. In the second step, the word which comes second last in the alphabetical order moves to the extreme right position and the second lowest number moves to the second position from the right. The same procedure is continued till all the numbers and words get rearranged.

Input : CHANT 18 SALTY 45 ABACUS WARDEN 30 91 67KNIGHT
Step I : 18 WARDEN CHANT SALTY 45 ABACUS 30 91 67 KNIGHT
Step II : 18 WARDEN CHANT 45 ABACUS 91 67 KNIGHT 30 SALTY
Step III : 45 KNIGHT 18 WARDEN CHANT ABACUS 91 67 30 SALTY
Step IV : 45 KNIGHT 18 WARDEN ABACUS 91 30 SALTY 67 CHANT
Step V : 91 ABACUS 45 KNIGHT 18 WARDEN 30 SALTY 67 CHANT

71. (2) Fourth element from the left in the second last step $\Rightarrow$ WARDEN
Fifth element from the right in the second last step $\Rightarrow$ 91
'ABACUS' lies exactly between 'WARDEN' and '91' in the second last step.

72. (3) Two consecutive elements to the immediate right of 'KNIGHT in the last step $\Rightarrow$ 18, WARDEN

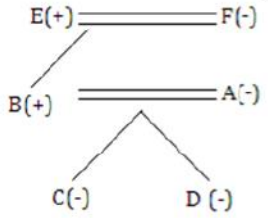
73.(1) '18' is seventh from the left of 'SALTY' in the Step III.

74.(5) Only 'CHANT appears exactly between 'WARDEN' and 'ABACUS' in the Step III.

75. (4) In Step I, 'WARDEN' is fourth to the left of 'ABACUS'.
In Step IV, '91' is fourth to the left of 'CHANT'.
In Step V, 'ABACUS' is fourth to the left of 'WARDEN.'

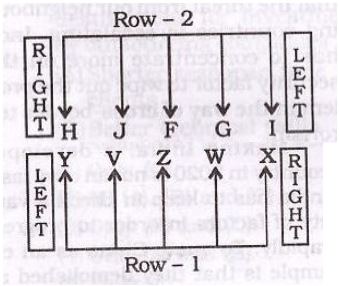
76-80.

Car	Persons travelling in car
P	F(-),D [-)
Q	B(+), E (+)
R	A(-) , ?(-)



76. (3) Five
77. (3) EF
78. (2) Q
79. (3) Granddaughter
80. (4) Data inadequate

81-85.



81. (1) Y faces H.
82. (4) F sits exactly in the middle of the row - 2. G sits to the immediate left of F.
83. (3) Except W, all others sit at ends of the lines.
84. (3) I faces X. J sits third to the right of I.
85. (2) Z faces F. Z is an immediate neighbour of V.
X is sitting at the extreme right end.
W sits second to the right of V.
V faces J.

86. (1) Argument (C) is not strong. India should rely on its own findings and conclusions. It is true that the level of water table should be maintained for future use. But it is equally true that for food production proper irrigation is required. Therefore, only Arguments (A) and (B) are strong.

87. (3) Only Argument (B) is strong. The use of term 'only' in the Argument (A) makes in invalid. Argument (C) is based on an example. We know that citing example is bad argumentation.

88. (4) Only Argument (A) is strong. In order to provide accommodation to vast population high rise buildings should be constructed wherever there are favourable conditions.

89. (1) None of the Assumptions (A), (B) and (C) is implicit in the statement. If policy authority has cordoned off the entire locality, it implies that police will ably control the vehicular movement in the locality.
Any advice is given assuming that people will follow it.

90. (3) Only Assumption (B) is implicit in the statement.
The apex body controlling universities has taken the decision assuming that Technical colleges will honour it.
Argument (C) does not explain how this decision will lead to chaos.

91. (2) $\sqrt{130}$ km towards South-East

92. (1) R < L

93. (2) L > P

94. (3) $S \geq R = T \geq N = M \geq Q$

95. (1) +

96.(1) J ÷ P $\Rightarrow$ J is the son of P.
P % H $\Rightarrow$ P is the mother of H.
H × T $\Rightarrow$ H is the sister of T.
Therefore, P is the mother of J, H and T.
J is the brother of T.

97. (2) Option (1),
L % R $\Rightarrow$ L is the mother of R
R $ D $\Rightarrow$ R is the wife of D.
D + T $\Rightarrow$ D is the father of T.
T × M $\Rightarrow$ T is the sister of M.
The gender of M is not known.
M is either son or daughter of D.
Option (2),
L + R $\Rightarrow$ L is the father of R.
R $ D $\Rightarrow$ R is the wife of D.
D + M $\Rightarrow$ D is the father of M.
M × T $\Rightarrow$ M is the sister of T.
It is clear that M is the daughter of D.
Option (3),
L % R $\Rightarrow$ L is the mother of R.
R % D $\Rightarrow$ R is the mother of D.
D + T $\Rightarrow$ D is the father of T.
T ÷ M $\Rightarrow$ T is son of M.
D is husband of M.
Option (4),
D + L $\Rightarrow$ D is the father of L.
L $ R $\Rightarrow$ L is the wife o f R
R + M $\Rightarrow$ R is the father of M.
M × T $\Rightarrow$ M is the sister of T.
M is the grand daughter of D.
Option (5),
L $ D $\Rightarrow$ L is the wife of D.
D ÷ R $\Rightarrow$ D is the son of R.
R % M $\Rightarrow$ R is the mother of M.

M ÷ T ⇒ M is the son of T.
M is the brother of D.

98. (2) I + T ⇒ I is the father of T.
T % J ⇒ T is the mother of J.
J × L ⇒ J is the sister of L.
L ÷ K ⇒ L is the son of K.
L is the son of K and hence Option (1) is incorrect.
T is the wife of K.
So, K is the son-in-law of I.
I is the grandfather of L and hence Option (3) is incorrect.
T is the mother of J and hence Option (4) is incorrect.
J is the sister of L and hence Option (5) is incorrect.

99.(4) Option (1),
W % L ⇒ W is the mother of L.
L × T ⇒ L is the sister of T.
T × Y ⇒ T is the sister of Y.
Y ÷ X ⇒ Y is the son of X .
Option (2),
W + L ⇒ W is the father of L.
L × T ⇒ L is the sister of T.
T × Y ⇒ T is the sister of Y.
Y + X ⇒ Y is the son of X.
Option (3),
X + L ⇒ X is the father of L.
L × T ⇒ L is the sister of T.
T × Y ⇒ T is the sister of Y.
Y ÷ W ⇒ Y is the son of W.
X is the father of L, T and Y.
Y is the son of X.
Option (4),
W $ X ⇒ W is the wife of X.
X + L ⇒ X is the father of L.
L + Y ⇒ L is the father of Y.
Y + T ⇒ Y is the father of T.
So, Y is the grandson of X.
Option (5),
W % X ⇒ W is the mother of X.
X + T ⇒ X is the father of T.
T × Y ⇒ T is the sister of Y.
Y ÷ L ⇒ Y is the son of L.
So, Y is the son of X and L.

100. (4) R % T ⇒ R is the mother of T.
T × P ⇒ T is the sister of P.
P $ Q ⇒ P is the wife of Q.
So, T is the sister-in-law of Q.