SBI PO Preliminary Grand Test –SPP-170209
HINTS & SOLUTIONS

1. (2) which are an outgrowth of what they imagine
2. (2) does the most important things to have all elements of importance in its products
3. (4) has always had a full measure of a trait
4. (3) with the performance that was expected of them
5. (2) to be bright, capable and making contribution to
6. (3)   7. (1)
8. (1)   9. (3)
10. (2)   11. (4)
12. (5)   13. (3)
14. (3)   15. (5)
16. (3) The sentence is in Past Tense. The use of had lost and replied make it evident. So, we can't use contain (V_1) here. Contain will be replaced with contained (V_2).
17. (2) In place of forbearance to, we should use forbearance towards.
Forbearance (Noun) means patient self-control; tolerance : show forbearance towards somebody; exercise forbearance   in dealing with people.
18. (2) In place of abounding with we should use abound with. Abound with is a phrase that means contained, full of. For example,
• Assam forests abounded with wild animals.
19. (4) Just law is in third person singular number. So, interfere will be replaced with interferes. The sentence is in Simple Present Tense.
20. (5) No error
21. (5) None of these
22. (5) Not getting enough financial assistance
23. (2) All (A), (B) and (C)
24. (3) carrying out research in the area of their interest
25. (1) UGC wants teachers to spend minimum 40 hours in a week in teaching
26. (5) decreased by 1%
27. (4) Public investment in higher education has increased in India.
28. (2) halt
29. (3) Do not appoint any permanent teacher.
30. (1) continuous
31. (3) I. $\sqrt{289x} = -\sqrt{25}$
Squaring both sides,
$289x = 25 \Rightarrow x = \dfrac{25}{289}$
II. $\sqrt{676y} = -10$
Squaring both sides,
$676y = 100 \Rightarrow y = \dfrac{100}{676}$
Clearly, x < y
32. (2) I. $8x^2 - 78x + 169 = 0$
$\Rightarrow 8x^2 - 26x - 52x + 169 = 0$
$\Rightarrow 2x (4x- 13) - 13 (4x- 13) = 0$
$\Rightarrow (2x - 13) (4x - 13) = 0$

$\therefore$ x $= \dfrac{13}{2}$ or $\dfrac{13}{4}$

II. $20y^2 - 117y + 169 = 0$
$\Rightarrow 20y^2 - 52y - 65y + 169 = 0$
$\Rightarrow 4y (5y - 13)- 13(5y - 13) = 0$
$\Rightarrow (4y - 13) (5y - 13) = 0$
$\therefore$ y $= \dfrac{13}{4}$ or $\dfrac{13}{5}$
Clearly, x $\geq$ y

33. (1) I. $\dfrac{15+9}{\sqrt{x}} = 11\sqrt{x}$
$\Rightarrow 11\sqrt{x} \times \sqrt{x} = 24 \Rightarrow 11x = 24 \Rightarrow x = \dfrac{24}{11}$
II. $\dfrac{\sqrt{y}}{4} + \dfrac{5\sqrt{y}}{12} = \dfrac{1}{\sqrt{y}}$
$\Rightarrow \dfrac{3\sqrt{y}+5\sqrt{y}}{12} = \dfrac{1}{\sqrt{y}} \Rightarrow \dfrac{8\sqrt{y}}{12} = \dfrac{1}{\sqrt{y}}$
$\Rightarrow 8\sqrt{y} \times \sqrt{y} = 12 \Rightarrow y = \dfrac{12}{8} = \dfrac{3}{2}$
Clearly, x > y

34. (5) I. $\dfrac{8}{\sqrt{x}} + \dfrac{6}{\sqrt{x}} = \sqrt{x}$
$\Rightarrow \dfrac{8+6}{\sqrt{x}} = \sqrt{x} \Rightarrow x = 14$
II. $y^3 - \dfrac{(14)^{\frac{7}{2}}}{\sqrt{y}} = 0$
$\Rightarrow y^3 - \dfrac{(14)^{\frac{7}{2}}}{\sqrt{y}} \Rightarrow y^3 - \sqrt{y} = (14)^{\frac{7}{2}}$
$\Rightarrow y^{\frac{7}{2}} = (14)^{\frac{7}{2}} \Rightarrow y = 14$

35. (5) I. $x^2 = 208 + 233 = 441$
$\therefore$ x $= \sqrt{441} = \pm 21$
II. $y^2 - 47 + 371 = 0$
$\Rightarrow y^2 + 324 = 0$
$y = \sqrt{-324}$ = An imaginary number.
$\therefore$ Relationship cannot established.

36 – 40. Train - A
Total Passengers = 700
General Coaches = $\dfrac{700}{5} = 140$
AC Coaches = $\dfrac{700}{4} = 175$

Sleeper Class = 161
First Class = 224
Train - B
Total Passengers = 910
AC Coaches = 480 - 175 = 305
Sleeper Class = 273
First Class = 91
General Coaches = 241

36. (3) Required ratio = 224 : 273 = 32 : 39

37. (4) Required answer = 140 + 305 = 445

38. (5) Required difference = 273 + 91 - 175 = 189

39. (2) Required percentage

$$= \frac{140 + 241}{910} \times 100 = \frac{381}{910} \times 100 = 42$$

40. (3) Required amount = 450 $\times$ 224 = Rs. 100800

41. (5) Required difference = 680 - 258 = 422

42. (2) Required percentage increase

$$= \frac{550 - 430}{430} \times 100 = 28$$

43. (2) Required average

$$= \frac{160 + 708 + 550 + 586}{4} = \frac{2004}{4} = 501$$

44. (1) Number of flight cancelled by airlines-R due to technical

fault in 2010 $= \frac{880 \times 60}{100} = 528$

45. (5) Required percentage

$$= \frac{(600 + 546)}{365} \times 100 = \frac{1146}{365} \times 100 = 314$$

46. (4) Time taken in crossing each other

$$= \frac{\text{Total length of trains}}{\text{Relative speed}}$$

The information given in both statements is not sufficient as length of train A and individual speed of each train are required.

47. (4) Area of rectangle = Area of triangle.
From the information given in both the statements, we can find area of triangle or area of rectangle. For finding length, breadth is required, which is not known.

48. (3) From the statement I,

$$r = \frac{100 \times 100}{1000} = 10\%$$

Thus we have,
P = Rs. 1000, r = 10%, t = 3years
Hence, C.I. can be determined From the statement II.

$$\text{S.I} = \frac{1000 \times r \times 2}{100} = 20r$$

$$\text{C.I.} = 1000 \left[\left(1 + \frac{r}{100} \right)^2 - 1 \right]$$

$$\therefore \text{C.I.} - \text{S.I.} = 1000 \left[\frac{200r + r^2}{10000} \right] - 20r$$

$$\Rightarrow 2000r + r^2 - 200r = 100$$

$$\Rightarrow r = 10$$

Hence, C.I. can be determined

49. (5) Let the unit's digit be x and ten's digit be y and x < y.

$$\therefore \text{Number} = 10y + x$$

From statement I,
y - x = 5 ....(i)
From statement II,
y + x = 7 ......(ii)
From (i) and (ii), x, y can be calculated and two digit number can be found.

50. (4) Let the distance between A and B be z km.
Again, let speed of boat in still water be x kmph and that of stream be y kmph.
$\therefore$ Rate downstream = (x + y) kmph
Rate upstream = (x - y) kmph
From statement I,

$$\frac{z}{x + y} = 2 \qquad ......(i)$$

From statement II

$$\frac{z}{x - y} = 4 \qquad .....(ii)$$

51. (5) $\Rightarrow 95^? = 95^{3.7} \div 95^{1.0}$

$\Rightarrow 95^? = 95^{3.7-1} = 95^{2.7}$

$\Rightarrow ? = 2.7$

52. (2) $? = \sqrt{10000} + \frac{3}{5} \times 1892$

$= 100 + 1135.2 = 1235.2 = 1230$

53. (3) $? = \frac{0.0004}{0.0001} \times 36 = 4 \times 36 = 144 = 145$

54. (1) ? = 140% of 12300

$$= \frac{140 \times 12300}{100} = 17220 = 17000$$

55. (3) $? = 3739 + 160 \times 30 = 3739 + 4800 = 8539 = 8200$

56. (4) The pattern is :

$2^3 + 1^2 = 9$

$3^3 + 3^2 = 31$

$4^3 + 3^2 = 73$

$5^3 + 4^2 = 141$

$6^3 + 5^2 = \boxed{241}$

57. (4) The pattern is :
35 + 221 = 256
256 + (221 - 26) = 451
451 + 169 (195 - 26) = 620
620 + 143 (169 - 26) = 763
763 + 117 = $\boxed{880}$

58. (3) The pattern is :
130 + 3^2 = 139
139 + 4^2 = 155
155 + 5^2 = 180
180 + 6^2 = 216
216 + 7^2 = $\boxed{265}$

59. (2) The pattern is :
658 + 72 = 730
730 + 144 = 874
874 + 288 = 1162
1162 + 576 = $\boxed{1738}$

60. (2) The pattern is :

14 + 990 = 1004

$$1004 + \frac{990}{5} = 1202.$$

$$1202 + \frac{198}{4} = 1251.5$$

$$1251.5 + 16.5\left(=\frac{49.5}{3}\right) = 1268$$

1268 + 8.25 = $\boxed{1276.25}$

61. (1) If the length of train A be x metre, then length of train B = 2x metre.

When a train crosses a pole, it covers a distance equal to its own length.

∴ Required ratio = $\frac{x}{25} : \frac{2x}{75} = \frac{1}{25} \times 75 : \frac{2}{75} \times 75 = 3 : 2$

62. (2) ∵ 12 kg of apples = Rs. 1500

∴ 20 kg of apples = $\frac{1500}{12} \times 20$ = Rs. 2500

∵ 10 kg of nuts = Rs. 2500

∵ 34 kg of nuts = $\frac{2500}{10} \times 34$ = Rs. 8500

∴ Veena's monthly income = Rs. 8500

∴ Veena's annual income = Rs. (12 × 8500)

= Rs. 1 lac 2 thousand

63. (3) If the number of 2-rupee coins be x, then number of 5 rupee coins = x- 5

∴ 2x + 5 (x- 5) = 50 - 26

⇒ 2x + 5x - 25 = 24

⇒ 7x = 24 + 25 = 49

⇒ x = $\frac{49}{7}$ = 7

64. (4) If the maximum marks in the test be x, then

$$\frac{x \times 35}{100} = 175 + 35 = 210$$

$$\Rightarrow x = \frac{210 \times 100}{35} = 600$$

65. (2) Area of the square = 22 × 22 = 484 sq.cm

∴ Circumference of circle = 484 cm

π × Diameter = 484

$$\Rightarrow \frac{22}{7} \times \text{Diameter} = 484$$

∴ Diameter = $\frac{484}{22} \times 7$ = 154 cm

∴ Length of rectangle = 2 × 154 = 308 cm.

∴ 2 (length + breadth) = Perimeter of rectangle

⇒ 2 (308 + x) = 668

[Breadth = x (let)]

$$\Rightarrow 308 + x = \frac{668}{2} = 334$$

⇒ x = 334 - 308 = 26cm

66 – 69.
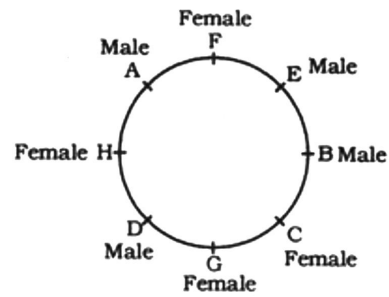
F is the wife of D.

B is the son of D and F.

H is the daughter D and F.

C is the wife B.

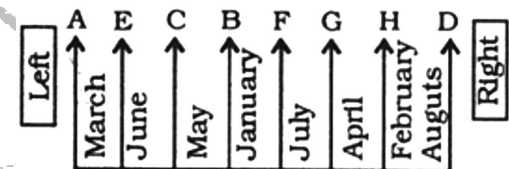A's brother is E.

66. (5) A sits exactly between H and F.

67. (1) E is the brother of A.

68. (3) A is grandson of D.

69. (1) Except B, all others are females.

70. (4) It is clear from the statement that the school in Regari is not at a walkable distance from the village

71 – 73.

71. (4) H joins the office in February.

72. (1) C sits exactly between E and B. C joins in May.

73. (1) H is second to the right of the person who joins in July.

B is second to the right of the person who joins in June.

F is second to the right of the person who Joins in May.

74– 75. S ≤ T < U < G

R ≥ T < U ≥ W

G > U ≥ W, S ≤ T ≤ R

74. (1) Conclusions

I. S < G : True

II. W ≤ R : Not true

75. (5) Conclusions

I. R ≥ S : True

II. W < G : True

76. (5) H ≥ G ≥ F

F ≤ G < I

Z < G < I

Conclusions

I. F ≤ H : True

II. Z < I : True

77 – 78. Sudha > Bharat, Abhishek

Karan > Rahul

Dana > Parul = Sudha

Karan > Rahul > Dana > Parul = Sudha > Abhishek > Bharat

77. (4) Dana is the third heaviest.

78. (3) Bharat weighs minimum.

79. (2) Statement (B) is the cause and statement (A) is its effect.

80. (2) Statement (B) is the cause and Statement (A) is its effect.

81. (2) Statement (B) is the cause and Statement (A) is its effect.

82 – 86.

Days	City	Subject of Conference
Monday	Delhi	Marketing
Tuesday	Chennai	HR
Wednesday	Pune	Management
Thursday	Indore	Banking
Friday	Hyderabad	Hospitality
Saturday	Mumbai	Real Estate
Sunday	Bhopal	Finance

82. (3) There is one day gap between conferences held in Delhi and Pune. Similarly, there is one conference between conferences on Banking and Real Estate. Therefore, Indore would belated to Mumbai.
83. (5) The conference on Banking was held in Indore.
84. (5) Four conferences were held between conferences on Marketing and Real Estate.
85. (2) The conference on HR was held on Tuesday.
86. (4) The conference on Marketing was held on Monday.

87 – 91.

Days	Person	Country
Monday	Samir	South Africa
Tuesday	Nita	Australia
Wednesday	Gifty	France
Thursday	Paul	Australia
Friday	Richa	South Africa
Saturday	Shweta	France
Sunday	Mohit	South Africa

87. (3) Nita will travel on Wednesday.
88. (1) Shweta travelled on Saturday.
89. (5) None of the combinations is true.
90. (4) Nita travelled on Tuesday to Australia.
91. (3) Mohit travelled on Sunday.
92. (5) Any measure is taken assuming that it would be accepted by the people. Therefore, both the assumptions are implicit in the statement
93. (5) If there were sufficient money to fund drought relief programmes, why this measure should be taken. Therefore, both the assumptions are implicit in the statement.

94. (3)
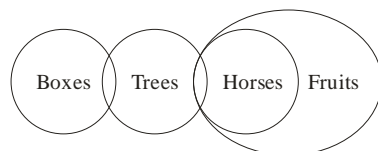
I. ✗ ✓   II. ✓
III. ✗   II. ✓ ✗
Either (I) or (IV) and (II) follows.

95. (4)
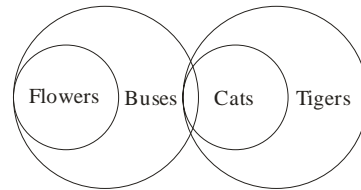
I. ✓   II. ✗
III. ✗   II. ✓
Only (I) and (IV) follows.

96 – 100.

Eligibility Criteria					
Applicant	(i)	(ii)	(iii)	(iv)	(v)
Ashok	✗	✗	✗	✗	✗
Navin	✗	✗	✗	✗	✓
Prabhu	✓	✗	✗	✗	✗
Meena	✗	✗	✓	✗	✗
Shobha	✓	✗	✗	✗	✓

96. (1) Ashok Malhotra, himself is not a defence personnel. There-fore, he must pay one-time membership fee of Rs. one lakh. Thus, he is not eligible.
97. (2) Navin Singh is a national level sports personnel and hence he can become a member by paying only Rs. 20 thousand as membership fee. The criterion of annual income is not applicable to him. Again, Navin Singh is the son of existing member of the club. Under this criterion he must pay Rs. 70 thousand as membership fee and must have an annual income of Rs. three lakhs. But, there is no information about his annual income. Therefore, Navin Singh is eligible under criterion (v) only.
98. (2) Prabhu Sharma is retired judge of the Supreme Court. Therefore, criterion (iv) is not applicable. He is eligible under criteria (i) and (v) only.
99. (3) MeenaJaswani is daughter of an existing member of the club. Therefore, she has to pay Rs. 70 thousand as membership fee and she must have an annual income of Rs. three lakhs. Thus, she is eligible under criterion (iii). She is presently working in defence sector. Therefore, criterion (ii) is not applicable.
100. (4) Shobha Patil is eligible under criteria (i) and (v).