# SBI PO Preliminary -2021. SBPP-2021-100016

## HINTS & SOLUTIONS

### ANSWER KEY

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

### HINTS & SOLUTIONS

1. (2)
2. (3)
3. (5)
4. (1)
5. (4)
6. (3)
7. (3)
8. (1)
9. (2)
10. (4)
11. (1)
12. (4)
13. (2)
14. (3)
15. (5)
16. (2) Use 'comply' in place of 'compliance'. Here, a *verb* is' required and not a noun.
17. (3) Use 'in talking' in place of 'talked'.
18. (1) Use 'is damaged' in place of 'gets damage'.
19. (4) Use 'end' in place of 'ending'. By *the end* is the correct phrase.
20. (3) Use 'its' in place of 'their'. *The company* is singular and so *its* should be used
21. (5)
22. (1)
23. (3)
24. (4)
25. (2)
26. (3)
27. (1)
28. (4)
29. (5)
30. (4)
31. (1) The series is :
$18 \times 6 - 9 = 99$
$99 \times 7 - 11 = 682$
$682 \times 8 - 13 = 5443$
$5443 \times 9 - 15 = \boxed{48972}$
32. (2) The series is :
$(11)^3 - 7 = 1324$
$(12)^3 - 7 = 1721$
$(12)^3 - 7 = 2190$
$(14)^3 - 7 = 2737$
$(15)^3 - 7 = 3368$
$(16)^3 - 7 = \boxed{4089}$
33. (4) The series is :
$13 + 7 + 7^3 = 363$
$12 + 6 + 6^3 = 234$
$11 + 5 + 5^3 = 141$
$10 + 4 + 4^3 = 78$
$9 + 3 + 3^3 = 39$
$8 + 2 + 2^3 = 18$
$7 + 1 + 1^3 = \boxed{9}$
34. (3) The series is :
$9^3 - 8^2 = 665$
$8^3 - 7^2 = 463$
$7^3 - 6^2 = 307$
$6^3 - 5^2 = 191$
$5^3 - 4^2 = 109$
$4^3 - 3^2 = \boxed{55}$
35. (3) The series is :
$5 \times 6 \times 7 = 210$
$6 \times 7 \times 8 = 336$
$7 \times 8 \times 9 = 504$
$8 \times 9 \times 10 = 720$
$9 \times 10 \times 11 = 990$
$10 \times 11 \times 12 = 1320$
$11 \times 12 \times 13 = \boxed{1716}$
36. (3) $\frac{25\times30\times6\times3}{200} = \frac{20\times D\times5\times2}{400}, \quad D = 135\,\text{days}$
37. (2)
38. (3) $(4B + 2M)6 = (5B + 6M)4$
$4B = 12m = \frac{(12M+2M)\times6}{2M+12M} = \frac{14M\times6}{14M} = 6\,\text{days}$

39. (2) $\frac{25\times30\times6\times3}{200\times10\times20}=\frac{30\times D\times5\times2}{400\times20\times10}\quad\therefore 90\,\text{days}$

D = 90 days

40. (2) Work done by pipe B in 1 hours

Let capacity of tank = x litre

$\therefore$ Pipe B can fill it in $\frac{x}{300}\text{hr.}$

$\therefore \frac{1}{12}-\frac{300}{x}=\frac{1}{15}\Rightarrow\frac{1}{12}-\frac{1}{15}=\frac{300}{x}\quad\therefore\frac{1}{60}=\frac{300}{x}$

$\therefore x=300\times60=18000\text{ litres}$

41. (2) $\%=\frac{70-64}{70}\times100=\frac{60}{7}=8\frac{4}{7}\%$

42. (5) Average $=\frac{55+48+75+50}{4}=\frac{228}{4}=57$

43. (3) Average $=\frac{70+64+45+60+60+73}{6}=\frac{372}{6}=62$

Maximum = 73 $\quad\therefore$ Ratio = 73 : 62

44. (3) Production of India = 372

Production of Sri Lanka = 350

$\therefore$ Difference = 372 – 350 = 22

45. (2)

46. (2) $B_{male}=\frac{554400}{16}\times9=311850$

47. (1) $F_{Ad}=\frac{302820}{21}\times13=187460$

48. (3) $C_{male}=\frac{369900}{9}\times4=164400$

$\therefore \text{Req.}\%=\frac{164400}{258000}\times100=63.72\%$

49. (4) $\text{Diff.}=\frac{281520}{17}\times(11-6)=16560\times5=82800$

50. (5) $A_{Fe}=\frac{333500}{23}\times11=159500,$

$B_{Fe}=\frac{554400}{16}\times7=242550$

$\therefore \text{Req.}\%=\frac{159500}{242550}\times100=65.759\approx65.76\%$

51. (2) There are 5 letters in word TOTAL whereas T comes two times.

Total number of permutation

$=\frac{5!}{2!}=\frac{5\times4\times3\times2\times1}{2\times1}=60$

52. (5) Area of the circle = $\pi r^2$ = 616

$\frac{22}{7}\times r^2=616$

$r^2=\frac{616\times7}{22}$

$r^2=28\times7$

$r^2=196$

$r=\sqrt{196}=14cm$

Circumference of the circle = 2πr

$=2\times\frac{22}{7}\times14=88cm$

53. (2) B and C together can complete a work in = $\frac{1}{8}$

A and B together can complete a work in = $\frac{1}{12}$

A and C together can complete a work in = $\frac{1}{16}$

Work completed by 2 (A + B + C ) in a day

$\frac{1}{8}+\frac{1}{12}+\frac{1}{16}=\frac{6+4+3}{48}=\frac{13}{48}.$

Work completed by (A + 8 + C ) in a day

$\frac{13}{48\times2}=\frac{13}{96}$

So, A, B and C together can complete

the work in $\frac{96}{13}$ days = $7\frac{5}{13}$ days.

54. (3) Compound interest accured half-yearly.

R = 20% yearly = 10% half-yearly

n = 2 years = 4 half-yearly

$CI=P\left[\left(1+\frac{r}{100}\right)^n-1\right]$

$=10000\left[\left(1+\frac{10}{100}\right)^4-1\right]$

$10000\left[\left(\frac{11}{10}\right)^4-1\right]$

$=10000\left[\frac{11\times11\times11\times11-10\times10\times10\times10}{10\times10\times10\times10}\right]$

$=10000\left[\frac{4641-10000}{10000}\right]$

$=10000\left[\frac{4641}{10000}\right]=\text{Rs..4641}$

55. (4) Suppose Income of B = ? x

$\frac{150}{100}\times x=\frac{3x}{2}$

Income of A =

$\frac{120}{100}\times\frac{3x}{2}$

Income of C = =

$\frac{6}{5}\times\frac{3x}{2}=\frac{9x}{5}$

$x+\frac{3x}{2}=\frac{9x}{5}=86000$

$\frac{10x+15x+18x}{10}=86000$

$43x=860000$

$x=20000$

$\text{So, income of C}=\frac{9}{5}\times20000$

= Rs. 36000

56. (3) $14x^2+17x-6=0$

$14x^2+21x-4x-6=0$

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

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

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

$6y^2 - 3y - 10y + 5 = 0$
$3y(2y - 1) - 5(2y - 1) = 0$
$(3y - 5)(2y - 1) = 0$
$y = \frac{5}{3}, \frac{1}{2}$
$\therefore$ x < y

57. (1) $x = \sqrt{7} \approx 2.645$
II. $6y^2 - 15y + 8y - 20 = 0$
$3y(2y - 5) + 4(2y - 5) = 0$
$(3y + 4)(2y - 5) = 0$
$y = -\frac{4}{3}, \frac{5}{2}$ x > y

58. (5) $3x^2 + 15 - 7x - 35 = 0$
$3x(x + 5) - 7(x + 5) = 0$
$(3x - 7)(x + 5) = 0$
$x = -5, \frac{7}{3}$
$y^2 - 8y + 6y - 48 = 0$
$y(y - 8) + 6(y - 8) = 0$
$(y + 6)(y - 8) = 0$
$y = -6, 8$
No relation between x & y

59. (2) $x^2 - 23x + 132 = 0$ $y = \sqrt[3]{1331}$
$x^2 - 12x - 11x + 132 = 0$ y = 11
$x(x - 12) - 11(x - 12) = 0$
$(x - 11)(x - 12) = 0$
x = 11, 12 x ≥ y

60. (1) Equn. (I) × 3 + equn. (II) × 5
$21x - 15y = 192$
$20x + 15y = 95$
$41x = 287$ x = 7 and y = –3
x > y

61. (2) $\left(1.7^3\right)^{2/3} \div (1.7)^2 \times \left(1.7^4\right)^{-1.2}$
$(1.7)^2 \div (1.7)^2 \times (1.7)^{-4.8} = (1.7)^{2 \div 1 - 4.8}$
$\therefore$ ? = –4.8

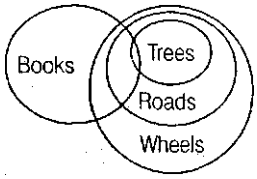
62. (3) $\left(\frac{21}{34} \times 68\right) \div 0.6 = 42 \div 0.6 = 70$

63. (5) $? \times 72 = 13.74 - 0.78 = 12.96$
$? = \frac{12.96}{70} = 0.18$

64. (4) $? \div 8 = \left(\frac{546 \times 546}{91}\right) \div 12 \Rightarrow 3276 \div 12 = 273$
$\therefore ? = 273 \times 8 = 2184$

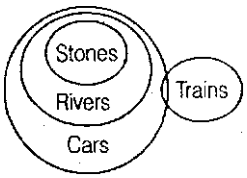
65. (4) $\frac{30 \times ?}{100} = \frac{3 \times 5 \times 2772}{7 \times 11} = 540$
$\therefore ? = \frac{540 \times 10}{3} = 1800$

66. (4) According to the statements, venn diagram is as follow



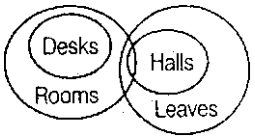

Conclusions I √ II √ III √
Hence, all follow.

67. (3) According to the statements, venn diagram is as follow



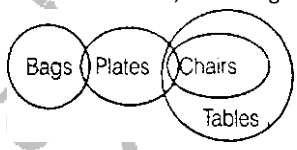

Conclusions I. X II √ III X
Hence, only II follows.

68. (2) According to the statements, venn diagram is as follow




Conclusions I √ II X III X
Hence, only I follow

69. (5) According to the statements, venn diagram is as follow




Conclusions I X II X III X
Hence, either II or III follows.

70. (1) The snatching cases has raised in Noida due to which police has taken such action.

71. (5) Focusing on motorbike patrolling will increase the reach and presence of police.

72. (1) The valid assumption is that the police are trying to strengthen there beat policing. To catch snatchers and prevent snatching.

73. (5) This is the only statement where "Committee" is the subject of the sentence.

74. (3) Due to lack of burial spaces the Christians are forced to option for cremation.

75. (1) Statement B is the valid reason for the cause of shrinking burial space.

76 – 80. what does it name – ku ru mu ju …(1)
name does the Real – pu ku su ru …(2)
the Milton have what – su mu ho ro …(3)
does have or not – kho rob u ru …(4)
From (1), (2) and (3) does → ru
From (1) and (2) more → ku
From (1) and (3) what → mu
Now From (1) it → ju
From (2) and (3) the → su
From (2) real → pu
From (3) and (4) have → ro
From (3) Milton → ho
From (4) or/not → kho/bu

76. (3)
77. (3)
78. (1)
79. (4)
80. (2)

81 – 85. Alphabets and numbers both are in increasing order.

81. (3) Step V would be –

Input : 47 68 run gun 72 sun 39 fun 54
Step I : 39 47 68 run gun 72 sun fun 54
Step II : 39 fun 68 run gun 72 sun 47 54
Step III : 39 fun 47 68 run gun 72 sun 54
Step IV : 39 fun 47 gun run 68 72 sun 54
Step V : 39 fun 47 gun 54 run 68 72 sun

82. (2) Through the machine, six steps are required to reach the final outputs.
83. (4) Step III : 29 opts 43 pots 63 top 54 76 spot
Step IV : 29 opts 43 pots 54 63 top 76 spot
Step V : 29 opts 43 pots 54 spot top 76 63
Step VI : 29 opts 43 pots 54 spot 63 top 76
84. (4) Going upwards is not possible and we can't determine Step 3 from Step 6.
85. (1)
86 – 90.

| PERSON | DAY | PROFESSION |
|---|---|---|
| D | Saturday | Hotelier |
| E | Saturday | Pilot |
| F | Wednesday | Businessman |
| B | Friday | Lawyer |
| C | Friday | Engineer |
| G | Sunday | Professor |
| A | Sunday | Doctor |

86. (3)
87. (2)
88. (1)
89. (3)
90. (5)
91. (4) From I – $P^{+}$ - $U^{+}$ - T and $S^{+}$ – G – U
So, $P^{(+)}$ – $U^{(+)}$ – T – $S^{(+)}$ – G
So, I alone is not sufficient,
From II –
So, II alone is not sufficient.
From I and II –
We didn't get the sex of G thus, both I and II are not sufficient.
92. (5) From I – T > P > D and N
Nothing is mentioned about Yusuf and Rajan.
So, I alone is not sufficient.
From II – T > R > Y
Nothing is mentioned about Teena, Piyush and Dhruv.
So, II alone is not sufficient.
From I and II – T > P > D & N and T > R > Y
Thus, it is clear that T is tallest among them, thus, both are necessary to answer.
93. (1) From I – ri means is – thus, I alone is sufficient.
From II – We can't find what 'ri' means. Thus, II alone is not sufficient.
94. (5) From I –
So, I alone is not sufficient.
From II – V and T cannot sit on the left of S. but nothing is given about V, N and J. Thus, II alone is not sufficient
From I and II –
So, both I and II together are necessary.
95. (1) From I – Let Rohit age X, Mohit's age = 3x
Now, 3x + x = 36, 4x = 36, x = 9. So, I alone is sufficient.
From II – Rohit age is twice the age of Rohan but nothing is given about Rohan's age. So, II alone is not sufficient.
96. (3)
97. (3)
98. (4)
99. (2) A M E R I C A
100. (3) (–) (–) (+) (+) or (–)
Z A K P
P's gender is not known.
So, P may be either brother or sister of Z.