SBI PO Preliminary Grand Test –SPP-190333

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTIONS

1. (4) misconceptions about the aid given to the poor nations by developed countries
2. (2) improving their own national behaviour
3. (3) despite rampant corruption, nations may prosper
4. (5) All the three
5. (4) the U.S., on its own, assumes the obligation of helping the poor countries
6. (1) The U.S. aid meant for per capita African does not reach the incumbent
7. (5) The meaning of the word **Obligation (Noun)** as used in the passage is : the state of being forced to do something because it is your duty or because of a law etc; commitment; moral binding.
   Look at the sentence :
   We have a moral obligation to protect the environment.
8. (2) The meaning of the word **Squander (Verb)** as used in the passage is : to waste time, money etc. in a stupid or careless way.
   Look at the sentence :
   She squandered all her money on gambling.
9. (5) The meaning of the word **Extensive (Adjective)** as used in the passage is : covering a large area; great in amount.
   Look at the sentence :
   The fire caused extensive damage.
   The word **Negligible (Adjective)** means : of very little importance or size: insignificant. Hence, the antonym of the word **extensive** should be **negligible**.
10. (4) The meaning of the word **Prolonged (Adjective)** as used in the passage is : continuing for a long Lime.
    Its antonym should be **short-lived** which means : lasting only for a short time.
11. (3)
12. (1)
13. (4)
14. (5)
15. (2)
16. (5) No error.
17. (3) Replace 'than' with 'when'. (scarcely-when)
18. (2) Replace 'too' with 'so'.
19. (3) Remove 'more' before 'preferable' as it is a comparative in itself.
20. (1) Place 'not only' after 'involved' because 'not only' is used after the main verb.
21. (3) Replace 'for' with 'of'. (preposition 'of' is used with guarantee.)
22. (1) Place 'not only' after 'the judges'. (Position of not only – but also)
23. (5) No error.
24. (4) Replace 'does not' with 'did not'.(as the sentence is in past tense)
25. (4) Replace 'not place' with 'have no place'. ('Have no place' is used as an idiom.)
26. (1) determine
27. (3) generate
28. (2) variety
29. (3) led
30. (4) response
31. (1) I. $2x^2 + 11x + 15 = 0$

    $\Rightarrow 2x^2 + 6x + 5x + 15 = 0$

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

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

    $\Rightarrow x = -3 \text{ or } -\frac{5}{2}$

    II. $5y^2 + 22y + 24 = 0$

    $\Rightarrow 5y^2 + 10y + 12y + 24 = 0$

    $\Rightarrow 5y(y + 2) + 12(y + 2) = 0$

    $\Rightarrow (y + 2)(5y + 12) = 0$

    $\Rightarrow y = -2 \text{ or } -\frac{12}{5}$

    Clearly, $x < y$
32. (2) I. $25x^2 + 25x + 4 = 0$

$\Rightarrow 25x^2 + 20x + 5x + 4 = 0$
$\Rightarrow 5x(5x + 4) + 1(5x + 4) = 0$
$\Rightarrow (5x + 4)(5x + 1) = 0$
$\Rightarrow x = -\frac{4}{5} \text{ or } -\frac{1}{5}$

II. $5y^2 + 11y + 6 = 0$
$\Rightarrow 5y^2 + 5y + 6y + 6 = 0$
$\Rightarrow 5y(y + 1) + 6(y + 1) = 0$
$\Rightarrow (y + 1)(5y + 6) = 0$
$\Rightarrow y = -1 \text{ or } -\frac{6}{5}$

Clearly, x > y

33. (5) I. $2x^2 + x - 1 = 0$
$\Rightarrow 2x^2 + 2x - x - 1 = 0$
$\Rightarrow 2x(x + 1) - 1(x + 1) = 0$
$\Rightarrow (2x - 1)(x + 1) = 0$
$\Rightarrow x = \frac{1}{2} \text{ or } -1$

II. $2y^2 + y - 6 = 0$
$\Rightarrow 2y^2 + 4y - 3y - 6 = 0$
$\Rightarrow 2y(y + 2) - 3(y + 2) = 0$
$\Rightarrow (2y - 3)(y + 2) = 0$
$Y = \frac{3}{2} \text{ or } -2$

34. (3) I. $x^2 - 10x + 21 = 0$
$\Rightarrow 7x - 3x + 21 = 0$
$\Rightarrow x(x - 7) - 3(x - 7) = 0$
$\Rightarrow (x - 3)(x - 7) = 0$
$\Rightarrow x = 3 \text{ or } 7$

II. $y^2 - 16y + 63 = 0$
$\Rightarrow y^2 - 9y - 7y + 63 = 0$
$\Rightarrow y(y - 9) - 7(y - 9) = 0$
$\Rightarrow (y - 7)(y - 9) = 0$
$\Rightarrow y = 7 \text{ or } 9$

Clearly, $x \leq y$

35. (5) I. $6x^2 + 17x + 12 = 0$
$\Rightarrow 6x^2 + 9x + 8x + 12 = 0$
$\Rightarrow 3x(2x + 3) + 4(2x + 3) = 0$
$\Rightarrow (2x + 3)(3x + 4) = 0$
$\Rightarrow x = -\frac{3}{2} \text{ or } -\frac{4}{3}$

II. $6y^2 + 21y + 9 = 0$
$\Rightarrow 2y^2 + 7y + 3 = 0$
$\Rightarrow 2y^2 + 6y + y + 3 = 0$
$\Rightarrow 2y(y + 3) + 1(y + 3) = 0$
$\Rightarrow (2y + 1)(y + 3) = 0$
$\Rightarrow y = -\frac{1}{2} \text{ or } -3$

36. (2) Let original Avg. = x
Original expenditure = $35x$
No. of students now = 35 + 7 = 42
According to Question,
$42(x - 1) - 35x = 42$
$\Rightarrow x = 12$
Original Expenditure = $35 \times 12 = 420$

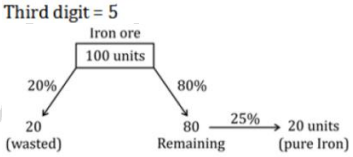
37. (3) Here height of cone = height of cylinder = radius of Hemisphere

	Cone		Hemisphere		Cylinder
Volume $\Rightarrow$	$\frac{1}{3}\pi r^2.r$		$\frac{2}{3}\pi r^3$		$\pi r^2.r$
	1	:	2	:	3

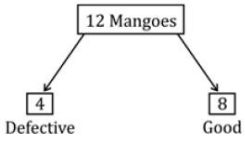
38. (1) Let 4 digit no. be 1000a+100b+10c+
According to question
$a + b = c + d$ .....(i)
$a + d = c$ .....(ii)
$b + d = 2(a + c)$ .....(iii)
From (i) and (ii)
b = 2d ..... (iv)
From (ii), (iii) & (iv)
$2d + d = 2(a + a + d)$
$a = \frac{d}{4}$ .....(v)
From (ii) and (v)
$c = \frac{5d}{4}$
Now

a	b	c	d
$\Rightarrow \frac{d}{4}$	2d	$\frac{5d}{4}$	d
$\Rightarrow$ d	8d	5d	4d
$\Rightarrow$ 1	8	5	4

Number = 1854
Third digit = 5

39. (1)


If 20 $\rightarrow$ 80,000 kg
Then, 100 $\rightarrow$ 4,00,000 kg

40. (3)


P [at least one good out of three] $= \frac{(8c_1 \times 4c_2) + (8c_2 \times 4c_1) + 8c_3}{12c_3}$
$= \frac{8\times6+28\times4+56}{220} = \frac{216}{220} = \frac{54}{55}$

41. (5) Unsold units of the company in year 2008
= (25 – 17.5) = 7.5 lacs
Unsold unit of company in year 2011
= (30 – 20) = 10 lacs
Hence required difference = (10 – 7.5) = 2.5 lacs

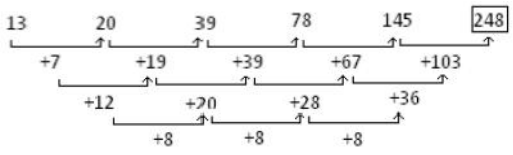
42. (2) Required avg. = 1/6 x (35 + 37.5 + 25 + 40 + 32.5 + 30) lacs
= 1/6 x200 = 33 lacs

43. (2) Required ratio = 37.5 : 25 = 3:2

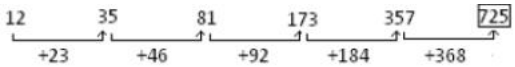
44. (3) Required percentage = [(20/27.5) x 100] = 73%

45. (2) Required number = (37.5 – 30)+ (32.5 – 25) lacs
= (7.5 + 7.5) lacs = 15 lacs

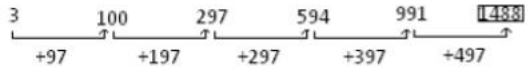
46. (4) the series is *3-6, *4-8, *5-10.....

47. (4)


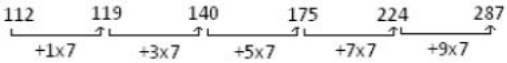
48. (1)



49. (4)



50. (3)



51. (2) Total Lay's in July and August together
= 28,540 – 6,690 – 1,820 – 3,334 – 4,545 = 12151
Lay's and Ruffles in November = 3334 + 2480 = 5814
∴Required difference = 6,337

52. (4) Kettle chips in July, August and September
= 5632 + 3767 + 3934 = 13,333

53. (1) Required percentage $= \frac{4035}{5620} \times 100 \approx 72\%$

54. (2) Required percentage $= \frac{3934-3500}{3934} \times 100 \approx 11\%$

55. (3) Required ratio $= \frac{4320}{4545} = \frac{96}{101}$

56. (2) $(x + 2520) = x\left(1+\frac{10}{100}\right)^2$

x = Zaheer's profit
x = 12000
y = Aashish's profit

$4200 = \frac{y \times 20 \times 1}{100}$

y = 21000
Umesh's profit = Rs. 9000
Ratio of their profits
= 12000 : 21000 : 9000
= 12 : 21 : 9 = 4 : 7 : 3

Umesh's share $= \frac{3}{14} \times 70000 = Rs.15000$

57. (2) Vidya and Priyanka cost price and marked price equal.

Vidya Selling price = (MP-20) × $\frac{80}{100}$ = 0.8MP – 16

Priyaka Selling price $= \left(MP \times \frac{80}{100}\right) - 20 = 0.8mp - 20$

Vidya % profit = 3 (Priyanka % loss)

$\left(\frac{SP-CP}{CP}\right) \times 100 = 3\left(\frac{CP-SP}{CP} \times 100\right)$

Vidya : $\left(\frac{8MP-16-CP}{CP}\right) \times 100$

= Priyanka : $3\left[\frac{CP[-0.8MP+20}{CP} \times 100\right]$

(0.8MP – 16 – CP) = 3(CP – 0.8MP + 20) ...(1)
Profit of vidya in Rupees = SP Vidya – CP
= 0.8 MP – 16 – CP
Putting value from eqn.(1)
Profit of Vidya = Rs. 3.

58. (1) Let Suresh take x days to complete the work. So in one day Suresh does = $\frac{1}{x}$

Given total efficiency of Ramesh and Suresh in one day = $\frac{1}{p}$

So Ramesh = $\frac{1}{p} - \frac{1}{x}$

According to question = $\frac{q}{p} + \left(\frac{1}{x}\right) = \frac{1}{r}$

So, $x = \frac{pr}{p-q}$

So, Suresh takes = $\frac{pr}{p-q}$

So, Ramesh takes = $\frac{pr}{r-p+q}$

59. (1) Initial speed of police = 10 m/s
Increase speed of police = 20 m/s
Speed of thief = 15 m/s
Initial difference between thief and police = 250 m
After 5 seconds difference between thief and police
= 250 – (5 × 10) = 200 m
After 10 seconds more the difference between thief and police = 200 + (5 × 10) = 250 m.
Now, the time required by police to catch the thief
$= \frac{250}{5} = 50$ s
Distance travelled = 50 × 20 = 1000 m
Total time = 50 + 15 = 65 s
Total distance = 1000 + (15 × 10) = 1150 m.

60. (2) Pipe A fills $\frac{3}{5}$ th part of tank in 27 hours.

∴ Time taken in filling completely $= \frac{27 \times 5}{3}$ = 45 hours

∴ Part of tank filled by A and B in 1 hour

$= \frac{1}{45} + \frac{1}{30} = \frac{2+3}{90} = \frac{1}{18}$

Required time = 18 hours

61. (1) $? = \frac{40 \times 4 \div 4^2 \times 2}{90 \div 5 \times 12} = \frac{40 \times 4 \times \frac{1}{4^2} \times 2}{\frac{90}{5} \times 12} = \frac{20}{18 \times 12} = \frac{5}{54}$

62. (2) $? = \frac{2500 \times 1.05}{100} + \frac{2.5 \times 440}{100}$ = 26.25 + 11 = 37.25

63. (1) $\sqrt{(176 \times 2 + 3^2)} = 4 + \sqrt{?}$

$\Rightarrow \sqrt{352+9} = 4 + \sqrt{?}$

$\Rightarrow \sqrt{361} = 4 + \sqrt{?}$

$\Rightarrow 19 = 4 + \sqrt{?}$

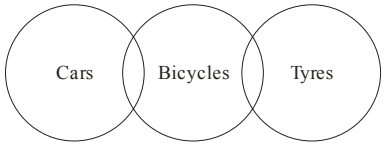
$\Rightarrow \sqrt{?} = 19 - 4 = 15$

$\Rightarrow ? = 15 \times 15 = 225$

64. (2) $? = \frac{(0.9)^3 - (0.3)^3}{(0.9)^3 + (0.3)^3} = \frac{0.729 - 0.027}{0.729 + 0.027} = \frac{0.702}{0.756} = \frac{13}{14}$

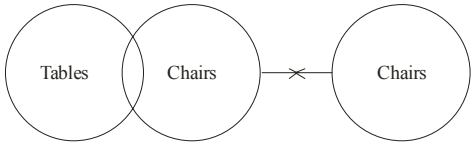
65. (1) $? = \frac{5}{9} \times 315 + \frac{3}{7} \times 455$ = 175 + 195 = 370

66. (1)



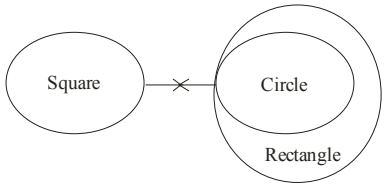
I. ✓ II. ✗
Only I follows.

67. (2)



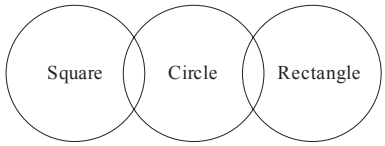
I. × II. ✓
Only II follows.

68. (2)



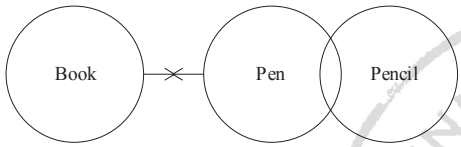
I. × II. ✓
Only II follows.

69. (4)



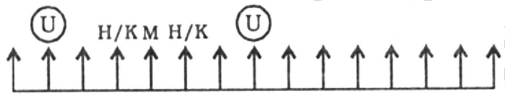
I. × II. ×
Neither I nor II follows.

70. (2)

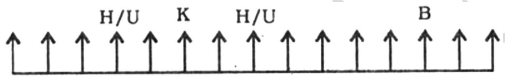


I. × II. ✓
Only II follows.

71. (2) From statement I



From statement II



Thus, three persons are standing between H and U.

72. (2) From statement I
K is the daughter of N and T.
B is the sister of N.
K is the granddaughter of S.
S is either father or mother of N or T.
Therefore, B is either daughter of S or sister of son-in-law or daughter-in-law of S.
From statement II
N is the wife of T.
B and N are daughters of S.

73. (2) From statement I

□ , □ , □ > C > □ , □

B > A > F
D is not the heaviest.
From statement II

□ , □ > F > □ , □ , □

F > C > D

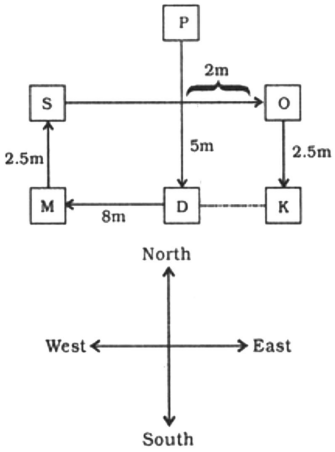
B > A > □ , □ , □ , □

B > A > F > C > D
E
A is the second heaviest.

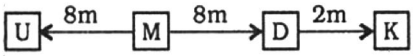
74. (1) From statement I
P U W I T
Thus, these are six persons in the line.
From statement II

S | U---------- W T |

75. (3)



Point M is 10 metre away from point K.
From statement II



Point M is 10 metre away from point K.

76-80.

Date	Day	Exam	Time Duration
2nd March	Wednesday	History	60 mins
3rd March	Thursday	Maths	50 mins
4th March	Friday	English	90 mins
5th March	Saturday	Hindi	100 mins
6th March	Sunday	Off	Off
7th March	Monday	Economics	75 mins
8th March	Tuesday	Science	40 mins

76. (5) None of these
77. (2) Maths - Thursday - 50 mins
78. (4) 40 mins
79. (1) Monday
80. (4) 6th march

81 – 85.

Floor	Candidate	City
9	Surendra	Kanpur
8	Abhinav	Noida
7	Vinod	Chennai
6	Govinda	Patna
5	Chintu	Lucknow
4	Pintu	Mumbai
3	Pawan	Kolkata
2	Bhaibhav	Bengaluru
1	Rakesh	Delhi

81. (1)

82. (2)
83. (5)
84. (5)
85. (3)
86. (4) $P \leq A < R = K$
$A > S$
$U \leq K$
$S < A < R = K \geq U$
$P \leq A > S$
Conclusions
I. $A > U$: Not True
II. $P < S$: Not True
87. (2) $B = C < D \leq N > O \geq P$
$Q \leq D$
$Y > B$
$Q \leq D \leq N$
$Y > B = C < D$
Conclusions
I. $Y > D$: Not True
II. $N \geq Q$: True
88. (3) $B > L \geq A = M < E$
$L \leq O = S$
$S = O \geq L \geq A = M$
Conclusions
I. $S > M$: Not True
II. $M = S$: Not True
S is either greater than or equal to M. Therefore, either Conclusion I or Conclusion II is true.
89. (5) $G \geq R = E \leq A \leq T$
$E \leq G$: True
$T \geq R$: True
90. (1) $P < N > H \geq B = R \leq K$
$N > R$: True
$P < H$: Not True
$R > P$: Not True
$B = K$: Not True
$H > K$: Not True

91-95. [redacted]

91. (2)
92. (3)
93. (1)
94. (3)
95. (5)

96-100. Use different symbols to different words as :

you are good ⟶ ni za ri
you are with me ⟶ ri si ni ti ⇒ good → za
meet good person ⟶ ap li za ⇒ me → ti
you are me ⟶ ri ni ti
meet me now ⟶ ku ti ap ⇒ meet → ap

Now from statement (iii), person → Li
Statement (v), now → ku
Also from (i), (ii) and (iii), you are → ni ri
From (ii), with → si

96. (4)
97. (5)
98. (1)
99. (1)
100. (3)