

## SBI PO Preliminary Grand Test –SPP-190328

### HINTS & SOLUTIONS

#### ANSWER KEY

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

#### HINTS & SOLUTIONS

1. (2) D  
 2. (1) A  
 3. (3) C  
 4. (2) B  
 5. (5) E  
 6.(4)  
 7.(2)  
 8.(3)  
 9.(3)  
 10.(2) Take in means to understand something or absorb something completely so the antonym should be diffuse-to spread.  
 11.(5) Flexibility - the ability to change shape, size, direction etc. so the antonym should be obduracy - having the quality of being determined to act in a particular way and not to change despite argument or persuasion.  
 12.(3) Normally– Generally (in normal conditions or situations, usually). So the antonym should be - seldom- means rarely, not usually.  
 13.(1) analogy- means comparison between things which have similar features.

- parallel- something very similar to something else. (comparison).  
 For other options:  
 partial - not complete  
 example-something which is same of a group of things, that it is a member of right– correct  
 14.(5) celestial - of or from outside the world or invisible heaven.  
 For other options:  
 karmic - related to fate or destiny  
 earthy - natural, realistic or practical  
 corporeal - of the nature of physical body, tangible.  
 infinite - measurably great.  
 15.(1) understand (we need to understand the information)  
 For other options:  
 acknowledge - to recognize the existence of something or something to be true.  
 channel - to convey through a channel.  
 restrict - keep something within limits treat - to act or behave toward (a person) in a particular way to deal with something (a disease, problem etc.)  
 16.(1) Second person agrees with a plural verb (in Present simple) should be used.  
 Hence, If you break the law should be used.  
 17.(4) To show start, **from** i.e. staff from the next year ..... should be used.  
 18.(3) Here, there is/are no transaction/transactions ..... should be used.  
 19.(3) Here, understand (infinitive)/ in understanding (Gerund) banking ..... should be used.  
 20.(1) Here, not a Gerund but a Noun i.e. The power supply (Noun) in ..... should be used.

21. (2)  
 22. (1)  
 23. (5)  
 24. (5)  
 25. (4)  
 26. (1)  
 27. (5)  
 28. (4)  
 29. (1)  
 30. (4)

$$31. (3) \quad x^2 = \frac{1}{9} \Rightarrow x = \frac{1}{3}, -\frac{1}{3}$$

$$y = \frac{1}{4}, -3$$

Hence there is no relation between x and y.

$$32. (1) \quad x = -2, \frac{1}{3} \text{ and } y = \frac{5}{2}, 1$$

Hence x is less than y.

$$33. (5) \quad x = -\frac{5}{3}, -\frac{1}{2} \text{ and } y = -\frac{5}{3}, -2$$

Hence  $x \geq y$ .

$$34. (1) \quad x^2 = 5$$

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$$\therefore x = +\sqrt{5} \text{ and } -\sqrt{5}$$

$$y = \frac{5}{2}, \frac{7}{2}$$

Hence  $x < y$ .

35. (4)  $x = 7, y = 5$

Hence  $x > y$ .

36. (2) Length of rectangle

$$= \frac{\text{Area}}{\text{Breadth}} = \frac{616}{22} = 28 \text{ cm}$$

$\therefore$  Diameter of circle = 28 cm

$\therefore$  Circumference of circle =  $\pi \times$  diameter

$$= \frac{22}{7} \times 28 = 88 \text{ cm}$$

37. (1) In 60 litres of mixture,

$$\text{Milk} = 60 \times \frac{2}{3} = 40 \text{ litres}$$

Water = 20 litres

Let  $x$  litres of water be added.

$$\therefore \frac{40}{20+x} = \frac{1}{2}$$

$$\Rightarrow 20 + x = 80$$

$$\Rightarrow x = 80 - 20 = 60 \text{ litres}$$

38. (2) Original price of a mobile phone = Rs. 100 (let)

Number of mobile phones sold = 100

Revenue received =  $100 \times 100 =$  Rs. 10000

**Case II,**

New price of a mobile phone = Rs. 80

New number of mobile phones sold = 180

$\therefore$  Revenue received = Rs.  $(80 \times 180) =$  Rs. 14400

Increase =  $14400 - 10000 =$  Rs. 4400

$$\times \text{ Percentage increase} = \frac{4400}{10000} \times 100 = 44\%$$

39. (1) Rate of painting = Rs. 2/sq.metre

$$\therefore \text{ Area of the rectangular floor} = \frac{256}{2} = 128 \text{ sq.m.}$$

Let the breadth of floor be  $x$  metre

$\therefore$  length =  $2x$  metre

$$\therefore 2x \times x = 128$$

$$\Rightarrow x^2 = \frac{128}{2} = 64$$

$$\therefore x = \sqrt{64} = 8$$

$\therefore$  Length of floor =  $2x = 2 \times 8 = 16$  metre

40. (3) Time gained in 6 hours =  $12 \times 3 = 36$  minutes

$\therefore$  Required time = 11 : 36 a.m.

41. (3) Difference =  $\left[ 7.8 \times \frac{7}{13} \times \frac{62}{100} - 7.8 \times \frac{6}{13} \times \frac{65}{100} \right]$   
= 26400 lakh

42. (2) Average =  $\frac{2.604 + 1.4 + 1.224 + 2.592 + 2.08 + 2.7}{6}$   
= 2.1 lakh

43. (1) Percentage =  $\frac{4.5 \times \frac{3}{5} \times \frac{36}{100} - 5.4 \times \frac{2}{3} \times \frac{25}{100}}{5.4 \times \frac{2}{3} \times \frac{25}{100}} \times 100$   
=  $\frac{0.972 - 0.9}{0.9} \times 100 = 8\%$

44. (3) Percentage =  $\frac{7.2 \times \frac{4}{9} \times \frac{35}{100}}{3.6 \times \frac{5}{9} \times \frac{70}{100}} \times 100 = 80\%$

45. (3) Difference =  $4.5 \times \frac{2}{5} \times \frac{32}{100} - 4.5 \times \frac{3}{5} \times \frac{64}{100}$   
= 1.152 lakh

46. (1)  $13 \times 1 + 1^2 = 13 + 1 = 14$

$$14 \times 2 + 2^2 = 28 + 4 = 32$$

$$32 \times 3 + 3^2 = 96 + 9 = 105$$

$$105 \times 4 + 4^2 = 420 + 16 = 436$$

$$436 \times 5 + 5^2 = 2180 + 25 = \boxed{2205}$$

47. (3)  $331 + 5^1 = 331 + 5 = 336$

$$336 + 5^2 = 336 + 25 = 361$$

$$361 + 5^3 = 361 + 125 = 486$$

$$486 + 5^4 = 486 + 625 = 1111$$

$$1111 + 5^5 = 1111 + 3125 = \boxed{4236}$$

48. (2)  $3 \times 1.5 = 4.5$

$$4.5 \times 4 (= 1.5 + 2.5) = 18$$

$$18 \times 7.5 (= 4 + 3.5) = 135$$

$$135 \times 12 (= 7.5 + 4.5) = \boxed{1620}$$

$$1620 \times 17.5 (= 12 + 5.5) = 28350$$

49. (4)  $147 + 1^2 = 148$

$$148 + 1^2 + 2^2 = 148 + 5 = 153$$

$$153 + 1^2 + 2^2 + 3^2 = 153 + 14 = 167$$

$$167 + 1^2 + 2^2 + 3^2 + 4^2 = 167 + 30 = 197$$

$$197 + 30 + 5^2 = 197 + 55 = \boxed{252}$$

50. (1)  $200 \times 0.5 + 2 = 100 + 2 = 102$

$$102 \times 1.5 + 4 = 153 + 4 = 157$$

$$157 \times 2.5 + 8 = 392.5 + 8 = 400.5$$

$$400.5 \times 3.5 + 16 = 1401.75 + 16 = \boxed{1417.75}$$

$$1417.75 \times 4.5 + 32 = 6379.875 + 32 = 6411.875$$

51. (1) C's income in 2008 = Rs. 369000

C's expenditure = Rs. 300000

$$\therefore \text{ Profit per cent} = \frac{\text{Profit}}{\text{Expenditure}} \times 100$$

$$= \text{Rs. } \frac{(369000 - 300000)}{\text{Rs. } 300000} \times 100$$

$$= \frac{69}{3} = 23\%$$

52. (4) Required ratio =  $(220 + 320 + 500) : (140 + 300 + 440)$

$$= 1040 : 880 = 13 : 11$$

53. (5) Total expenditure in 2006 = Rs.  $(220 + 420 + 560)$  thousand = Rs. 1200 thousand

If the total income be Rs.  $x$  thousand, then

$$45 = \frac{(x - 1200)}{1200} \times 100$$

$$\Rightarrow 45 \times 12 = x - 1200$$

$$\Rightarrow 540 + 1200 = x$$

$$\Rightarrow x = \text{Rs. } 1740 \text{ thousand}$$

54. (5) Per cent increase

$$= \frac{560 - 260}{260} \times 100$$

$$= \frac{3000}{26} = \frac{1500}{13} = 115 \frac{5}{13} \%$$

55. (3) Required average expenditure

$$= \text{Rs. } \frac{1}{5} (350 + 500 + 560 + 300 + 460) \text{ thousand}$$

$$= \text{Rs. } \left( \frac{2170}{5} \right) \text{ thousand} = \text{Rs. } 434 \text{ thousand}$$

56. (3) In 2009,

$$\text{Expenditure of A} = \frac{560 \times 105}{100} = \text{Rs. } 588 \text{ thousand}$$

$$\text{Expenditure of B} = \frac{460 \times 106}{100} = \text{Rs. } 487.6 \text{ thousand}$$

$$\text{Expenditure of C} = \frac{300 \times 112}{100} = \text{Rs. } 336 \text{ thousand}$$

$$\therefore \text{Total expenditure} = \text{Rs. } (588 + 487.6 + 336) \text{ thousand} \\ = \text{Rs. } 1411.6 \text{ thousand}$$

57. (1) From statement I,

$$\text{Number of female students} = x$$

$$\therefore \text{Number of male students} = x + 3$$

$$\therefore (x + 3) \times 63 + 59 \times x$$

$$= (2x + 3) \times 61.08 \text{ kg}$$

$$\Rightarrow 63x + 189 + 59x = 122.16x + 183.24$$

$$\Rightarrow 122.16x - 122x = 189 - 183.24$$

$$\Rightarrow 0.16x = 5.76 \Rightarrow x = 36$$

$$\therefore \text{Total number of students}$$

$$= 2x + 3 = 2 \times 36 + 3 = 75$$

58. (2) From statement II,

Let the breadth be  $x$  metre.

$$\therefore \text{Length} = (x + 6) \text{ metre}$$

$$\therefore 2(x + 6 + x) = 32$$

$$\Rightarrow 2x + 6 = 16 \Rightarrow 2x = 16 - 6 = 10$$

$$\Rightarrow x = \frac{10}{2} = 5 \text{ metre} = \text{breadth}$$

$$\therefore \text{Length} = 6 + 5 = 11 \text{ metre}$$

$$\therefore \text{Diagonal} = \sqrt{11^2 + 5^2}$$

$$= \sqrt{121 + 25} = \sqrt{146} \text{ metre}$$

59. (3) From both the statements,

Let the numbers be  $a$  and  $b$ .

$$\therefore a + b = 128$$

$$\text{and } ab = \text{LCM} \times \text{HCF} = 504 \times 8 = 4032$$

$$\therefore (a + b)^2 = a^2 + b^2 + 2ab$$

$$\Rightarrow a^2 + b^2 = (a + b)^2 - 2ab$$

$$= (128)^2 - 2 \times 4032$$

$$= 16384 - 8064 = 8320$$

60. (4) From statement I,

$$\text{C.P. of table} = \text{Rs. } [952 - (1054 - 952)]$$

$$= \text{Rs. } (952 - 102) = \text{Rs. } 850$$

From statement II,

Let the C.P. of table be Rs.  $x$ .

$$\therefore \frac{x \times 104}{100} = \frac{1105 \times 80}{100} \Rightarrow x = \frac{1105 \times 80}{104} = \text{Rs. } 850$$

$$61. (2) ? = \left( \frac{30 \times 560}{100} + \frac{53 \times 1100}{100} \right) \div 8$$

$$= (168 + 583) \div 8$$

$$= 751 \div 8 = 94$$

$$62. (2) ? \times 5 \times 5 - 13 \times 4 \times 4 = 117$$

$$\Rightarrow 25 \times ? - 208 = 117$$

$$\Rightarrow 25 \times ? = 208 + 117 = 325$$

$$\Rightarrow ? = \frac{325}{25} = 13$$

$$63. (3) (9118 - 8022 + 904) \times 12 = 1500 \times ?$$

$$\therefore ? = \frac{2000 \times 12}{1500} = 16$$

$$64. (5) \sqrt{?} + \sqrt{1229} \times 14 - 12 = 511$$

$$\Rightarrow \sqrt{?} + 35 \times 14 - 12 = 511$$

$$\Rightarrow \sqrt{?} + 490 - 12 = 511$$

$$\Rightarrow \sqrt{?} = 511 - 478 = 33$$

$$\Rightarrow ? = 33 \times 33 = 1089$$

$$65. (3) ? = 1020 \times 5 + 237 - 302 \\ = 5100 + 237 - 302 = 5035$$

(66 – 70):

(i)  $A \$ B$  means  $A < B$  |

Therefore,  $A \geq B$

(ii)  $A \# B$  means  $A > B$

Therefore,  $A \leq B$

(iii)  $A @ B$  means  $A < B$  and  $A \neq B$ ,

Therefore,  $A > B$

(iv)  $A \odot B$  means  $A < B$  and  $A > B$  |

Therefore,  $A = B$

(v)  $A \% B$  means  $A > B$  and  $A \neq B$

Therefore,  $A < B$

$$H \% J \Rightarrow H < J$$

$$J \odot N \Rightarrow J = N$$

$$N @ R \Rightarrow N > R$$

Therefore,  $H < J = N > R$

**Conclusions:**

$$\text{I. } R \% J \Rightarrow R < J : \text{True}$$

$$\text{II. } H @ J \Rightarrow H > J : \text{Not true}$$

$$\text{III. } N @ J \Rightarrow N > J : \text{Not true}$$

$$67. (5) M @ J \Rightarrow M > J$$

$$J \$ T \Rightarrow J \geq T$$

$$T \odot N \Rightarrow T = N$$

Therefore,  $M > J \geq T = N$

**Conclusions:**

$$\text{I. } N \# J \Rightarrow N \leq J : \text{True}$$

$$\text{II. } T \% M \Rightarrow T < M : \text{True}$$

$$\text{III. } M @ N \Rightarrow M > N : \text{True}$$

$$68. (1) K \# N \Rightarrow K \leq N$$

$$N \$ T \Rightarrow N \geq T$$

$$T \% J \Rightarrow T > J$$

Therefore,  $K \leq N \geq T > J$

**Conclusions:**

$$\text{I. } J @ N \Rightarrow J > N : \text{Not True}$$

$$\text{II. } K @ T \Rightarrow K > T : \text{Not True}$$

$$\text{III. } T @ K \Rightarrow T > K : \text{Not True}$$

$$69. (4) M @ D \Rightarrow M > D$$

$$D \odot V \Rightarrow D = V$$

$$V \$ W \Rightarrow V \geq W$$

Therefore,  $M > D = V \geq W$

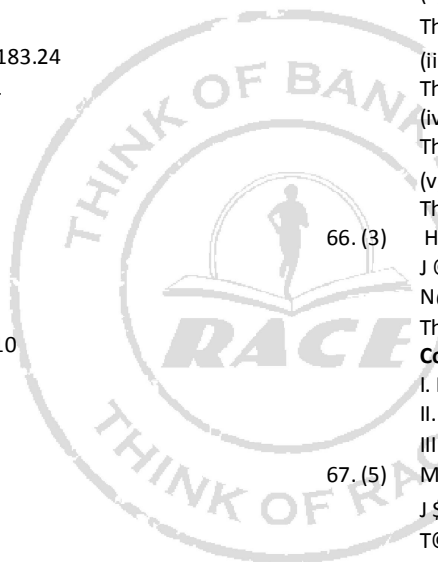
**Conclusions:**

$$\text{I. } W @ M \Rightarrow W > M : \text{Not True}$$

$$\text{II. } M \% V \Rightarrow M < V : \text{Not True}$$

$$\text{III. } D \$ W \Rightarrow D \geq W : \text{True}$$

$$70. (2) R \# D \Rightarrow R \leq D$$



$D \notin M \Rightarrow D \geq M$   
 $M \odot N \Rightarrow M = N$   
 Therefore,  $R \leq D \geq M = N$

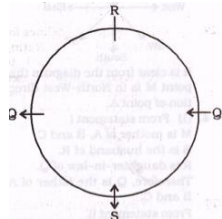
**Conclusions:**

- I.  $R \# M \Rightarrow R \leq M$  : Not True
- II.  $N \# D \Rightarrow N \leq D$  : True
- III.  $N \notin R \Rightarrow N \geq R$  : Not True

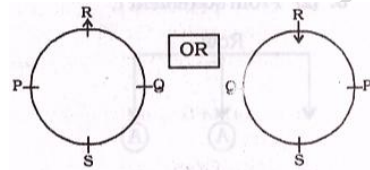
71. (5) From statement I  
 B studies in 1<sup>st</sup> or 7<sup>th</sup> standard  
 C studies in 4<sup>th</sup> or 8<sup>th</sup> standard  
 From statement II  
 $C > B > A > \square$

From both the statements  
 10<sup>th</sup> 8<sup>th</sup> 7<sup>th</sup> 4<sup>th</sup> 1<sup>st</sup>  
 D/E C B A D/E

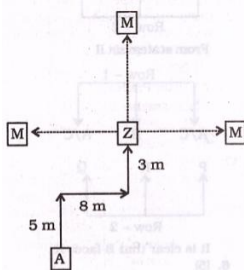
72. (4) From statement I



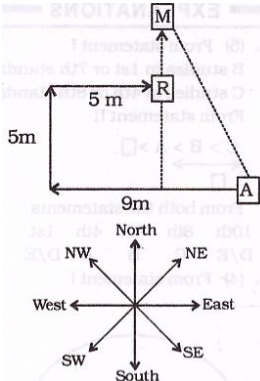
From Statement II



73. (2) From statement I



From statement II



It is clear from the diagram that point M is in North-West direction of point A.

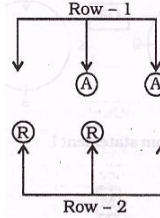
74. (1) From statement I  
 M is mother of A, B and C. B is the husband of R.

R is daughter-in-law of Q. Therefore, Q is the father of A, B and C.

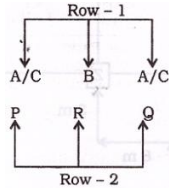
From statement II

A, B and C are children of M and Q

75. (2) From statement I,



From statement II



It is clear that B faces R

76. (1) Only assumption I is implicit in the statement. Vehicle is parked at a distance which is not far away from the destination.

77. (2) Only assumption II is implicit in the statement. The use of term all in the assumption I makes it invalid.

78. (5) Clearly both the assumptions are implicit in the statement.

79. (5) It is mentioned in the statement that for any kind of problem. Contact help desk. It implies that help desk suggests solutions to all kinds of problems related to mobile phones. Therefore, both the assumptions are implicit in the statement.

80. (4) None of the assumptions is implicit in the statement.

81-85.

Day	Destination	Departure Time
Monday	Madrid	10 PM
Tuesday	Sydney	5 PM
Wednesday	Dubai	9 PM
Thursday	London	6 PM
Friday	Zurich	8 PM
Saturday	Rome	4 PM
Sunday	Paris	7 PM

81. (3) None as Paris bound flight departs on Sunday.

82. (4) Sydney bound flight departs at 5 PM.

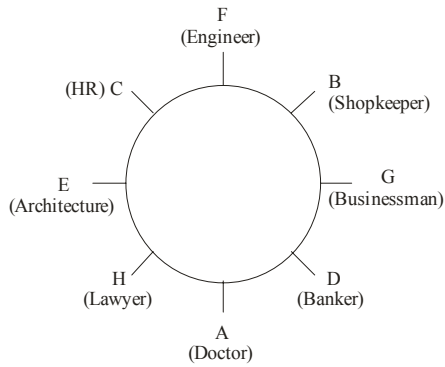
83. (4) Sydney bound flight departs at 5 PM. London bound flight departs at 6 PM.

84. (2) Dubai bound flight departs at 9 PM. The flight would arrive in New Delhi at 11 PM.

85. (5) Madrid bound flight departs at 10 PM.

86-92.

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- 86. (1) A – Doctor
- 87. (2) In both CW and ACW. You see there are three persons. In between C and D.
- 88. (3) Lawyer is fourth right of shopkeeper B.
- 89. (1) In both CW and ACR you see there are three persons in between Doctor and Engineer.
- 90. (3) D is immediate right of A.
- 91. (5) Except (5) in each case third person is sitting between first and second person.
- 92. (4)  $A \xrightarrow{+1} D \xrightarrow{+2} B \xrightarrow{+3} E \xrightarrow{+4} G \xrightarrow{+5} H$

93-95.

Candidate	Conditions							
	(i)	(ii)	(iii)	(iv) or (a)	(v)	(vi) or (b)		
Neelam	✓	✓	✓	✓	-	✓	-	✓
Antrban	✓	✓	✓	✓	-	x	✓	-
Vaibhav	✓	✓	✓	-	✓	✓	✓	-
Sudha	✓	✓	✓	✓	-	✓	✓	-
Ashok	✓	NG	✓	✓	-	✓	✓	-

- 93. (3) Neelam John satisfies conditions (i), (ii), (iii), (iv), (v) and (b). Therefore, she would be kept on waiting list.
- 94. (2) Anirban Chowdhury does not satisfy condition (v).
- 95. (4) Vaibhav Joshi satisfies conditions (i), (ii), (iii), (a), (v) and (vi). Therefore, his case would be referred to VP-Finance.

