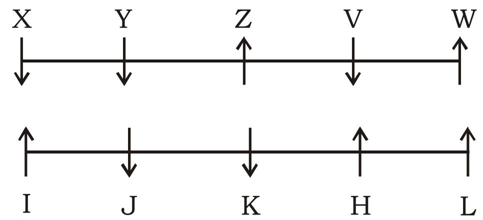
SBI CLERK SPECIAL PHASE - I - 291 (SOLUTION)

REASONING

(1–5) :



1. (4) 2. (2) 3. (3) 4. (5) 5. (2)

(6-10) :

6. (4) Combining all statements

$S < K \geq Z > P \geq O \leq I$

I. $O < S \rightarrow$ False

II. $K > P \rightarrow$ True

Hence, Only conclusion II is true.

7. (4) Combining all statements

$R \geq Z \geq P < Q$

I. $R \geq P \rightarrow$ True

II. $Z \geq Q \rightarrow$ False

Hence, Only conclusion I is true.

8. (4) Combining all statements

$T > N < M$

I. $T > M \rightarrow$ False

$O \geq N < T$

II. $O \geq T \rightarrow$ False

Hence, Neither conclusion I nor II is true.

9. (1) Combining all statements

$Y \leq B > A$

I. $Y < A \rightarrow$ False

$T \geq B = U \geq P$

II. $T > P \rightarrow$ Doubt

Hence, Neither conclusion I nor II is true.

10. (5) Combining all statements

$A > K > M$

I. $A > M \rightarrow$ True

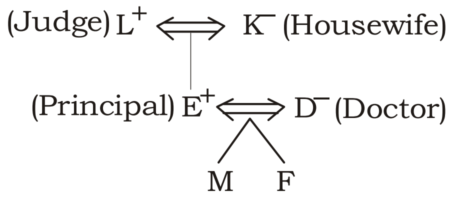
$I \leq P = K \geq O$

II. $O \leq I \rightarrow$ False

Hence, Only conclusion I is true.

(11-15) :

Family Tree



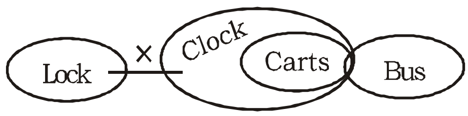
Grandson is engineer.

Grand daughter is a student.

11. (4) 12. (1) 13. (3) 14. (4) 15. (4)

(16-20) :

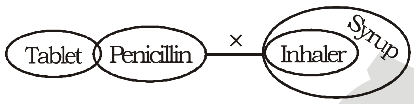
16. (3)



I. True II. True III. True IV. False

Only I, II and III follow.

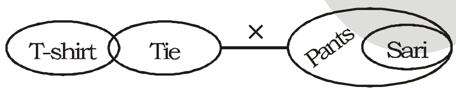
17. (2)



I. True II. False III. True IV. True

I, III and IV follow.

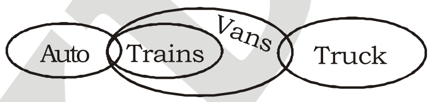
18. (4)



I. True II. False III. True IV. True

I, III and IV follow.

19. (3)



I. False II. False III. False IV. True

Only III follows.

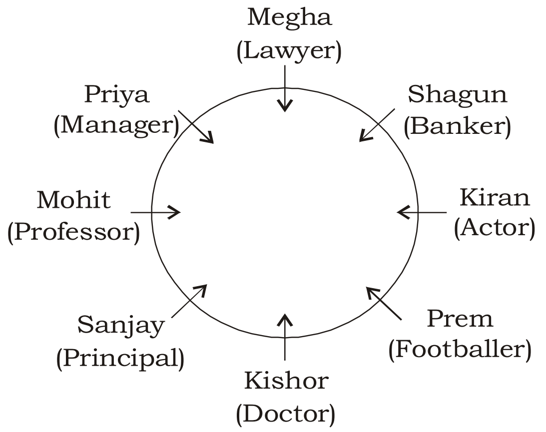
20. (5)

I. False II. True III. False IV. False

Only II follows.

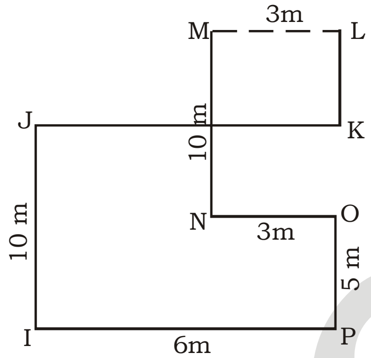
21. (4) 22. (4) 23. (3) 24. (2) 25. (5)

(26-30) :



26. (3) 27. (1) 28. (3) 29. (4) 30. (3)

(31-32) :



31. (1) 32. (4)

33. (4)

A D J U S T I N G

34. (5)

+1 +1 +1 –1 +1 +1 +1

B U I $\boxed{L}$ D E R

J V C $\boxed{K}$ S F E

35. (4) Naina's rank from last = (16 + 10) = 26^{th}

Naina's rank from beginning = (54 – 26 +1) = 29^{th}

MATHS

36. (5) The series is,

655 – (63 – 1) = 440

440 – (53 – 1) = 316

316 – (43 – 1) = 253

253 – (33 – 1) = 227

227 – (23 – 1) = **220** = ?

37. (5) 117 + 272 = 389
389 + 136 = 525
525 + 68 = 593
593 + 34 = 627
627 + 17 = **644**

38. (4) The series is-
7 + (4 × 1) = 11
11 + (4 × 3) = 23
23 + (4 × 7) = 51
51 + (4 × 13) = 103
103 + (4 × 21) = 187
So, ? = 103 + (4 × 21) = **187**
Multiples of 4 have difference of 2,4,6 and so on.

39. (3) The pattern is-
32 × 0.5 = 16
16 × 1 = 16
16 × 1.5 = 24
24 × 2 = 48
48 × 2.5 = **120**

40. (1) 116 194 262 315 348 356
+78 +68 +53 +33 +8
–10 –15 –20 –25

41. (1) Unit digit in 7^4 = 1

Unit digit in 7^{754} = Unit digit in $\left\{7^{4^{188}} \times 7^2\right\}$ = Unit digit in (1 × 49) = 9

Unit digit in 3^4 = 1

Unit digit in $3^{65} = 3^{64} \times 3^1 = 3$

Unit digit in = 6^{59} = 6,

Unit digit in = 7^{71} = Unit digit in $7^{4^{17}} \times 7^3$

Unit digit in $7^3 = 3 \rightarrow$ Required digit
= Unit digit in (3 × 6 × 3)
= Unit digit in 54 = 4
So, Quantity I > Quantity II

42. (2) Total number of Events or no of sample space (Throwing of 2 dices) = n(S) = 36

Event I, n(I) = {1, 1}, {2, 2}, {3, 3}, {4, 4}, {5, 5}, {6, 6} $\rightarrow$ P(I) = $\frac{n(I)}{n(S)} = \frac{6}{36} = \frac{1}{6}$

Event II, n(II) = {3, 1}, {4, 2}, {5, 3}, {6, 4}, {3, 5}, {4, 6}, {2, 4}, {1, 3} $\rightarrow$ P(II)

$= \frac{8}{36} = \frac{2}{9}$

So, Quantity I < Quantity II

43. (5) Quantity 1:

$841^{1/2}x + \sqrt{324} = 315$

33x + 18 = 315

33x = 297

x = 9

Quantity 2 :

$(841)^{1/2}y^2 - 469 = 2818$

$29y^2 - 469 = 2818$

$29y^2 = 2818 + 469$

$29y^2 = 3287$

$? y^2 = 113.3$

? y = ± 10.6

No relation can be established.

44. (2) I- Suppose the person bought 11 × 10 = 110 mangoes

CP of 110 mangoes = $\frac{10}{11} \times 110 = 100 \rightarrow$ SP of 110 mangoes = $\frac{11}{10} \times 1100 = 121$

Profit = 121 – 100 = 21 $\rightarrow$ Profit% = $\frac{21}{100} \times 100 = 21\%$

II- Suppose the person bought = 8 × 9 = 72 pens

CP of 72 pens = $\frac{8}{9} \times 72 = 64 \rightarrow$ SP of 72 pens = $\frac{9}{8} \times 72 = 81$

Profit = 81 – 64 = 17 $\rightarrow$ Profit% = $\frac{17}{64} \times 100 = 26.56 > 21$

So, Quantity I < Quantity II

45. (5) Quantity I.

Let Pravin, Kshama and Raghav (let say P, Q and R resp.) represent their respective monthly incomes. Then, we have:

P + Q = (5050 × 2) = 10100 .... (i)

Q + R = (6250 × 2) = 12500 .... (ii)

P + R = (5200 × 2) = 10400 .... (iii)

Adding (i), (ii) and (iii), we get: 2(P + Q + R) = 33000 or P + Q + R = 16500 .... (iv)

Subtracting (ii) from (iv), we get P = 4000.

P's monthly income = Rs. 4000

Thus, quantity I = 4000

Quantity II,

Ratio of initial investments = $\frac{7}{2} : \frac{4}{3} : \frac{6}{5} = 105 : 40 : 36$

Let the initial investments be 105x, 40x, 36x

A : B : C = $(105x \times 4 + \frac{150}{100} \times 105x \times 8) : (40x \times 12) : (36x \times 12) = 35 : 10 : 9$

Hence, B's Share = Rs. $21600 \times \frac{10}{54}$ = Rs. 4000

Thus, quantity II = 4000

Quantity I = Quantity II

46. (2) Take nearest values = 3995.009 – 290.999 – 129.989 × 2 = ?

= 3995-291 – 130 × 2 = 3445 (Approx)

47. (5) 1200 ÷ 15 × 20 + 400 = 80 × 20 + 400

= 1600 + 400 = 2000 (Approx)

48. (2) (23.9 % of 1250.002) - (14.997% of 79.222) = ?

= (24 % of 1250) - (15% of 80) = ?

= (300) - (12) = 288

49. (4) $(40.0002)^2 \times 12.85 = (40)^2 \times 13$

= 1600 × 13 = 20,800

50. (3) $(12)^2 - (8)^2 + (6)^3 = ?$

= 144 - 64 + 216 = 296 = 300 (Approx)

51. (1) The probability of selecting one box = $\frac{1}{3}$

Now, the probability of picking a blue ball from Box 1 = $\frac{1}{3}\times\frac{4}{15}$

The probability of picking a blue ball from Box 2 = $\frac{1}{3}\times\frac{4}{13}$

The probability of picking a blue ball from Box 3 = $\frac{1}{3}\times\frac{3}{12}$

Hence, the probability that blue ball is from either of the boxes $=\frac{1}{3}\times\left(\frac{4}{15}+\frac{4}{13}+\frac{3}{12}\right)$

$= \frac{643}{2340}$

52. (2) Number of balls other than orange in box 2 = 9

For Boy 1, he can pick 2 balls from Box 2 such that no ball is orange in following ways

$= \frac{9}{13}\times\frac{8}{12}$

Total probability = $\frac{6}{13}$

Number of balls other than grey in box 3 = 5

For Boy 2, he can pick 2 balls from Box 3 such that no ball is grey in following ways

$= \frac{5}{12}\times\frac{4}{11}$

Total probability = $\frac{5}{33}$

Hence, the total probability = $\frac{6}{13}\times\frac{5}{33} = \frac{30}{429}$

53. (3) For first process,

3 orange balls from Box 2 with replacement. Probability is $\left(\frac{4}{13}\right)^3 = \frac{64}{2197}$

For second process,

3 Grey balls from Box 1 without replacement, Probability is $\frac{(6\times5\times4)}{(15\times14\times13)} = \frac{4}{91}$

Hence, second probability is greater by 50.89%

54. (4) Let P(A) be the probability that Grey ball is transferred.

P(A) = 6/15

Let P(B) be the probability that ball drawn is Grey. Three cases are there

Case 1 : If Blue ball was transferred,

$P1 = \frac{4}{15}\times\frac{7}{13}$

Case 2 : If Orange ball was transferred,

$P2 = \frac{5}{15}\times\frac{7}{13}$

Case 3 : If Grey ball was transferred,

$P3 = \frac{6}{15}\times\frac{8}{13}$

$P(B) = P1 + P2 + P3 = \frac{111}{195}$

$$P\left(\frac{A}{B}\right) = \frac{A \operatorname{int} er \sec ts B}{B} = \frac{\frac{48}{195}}{\frac{111}{195}}$$

Hence, the probability is $\frac{48}{111}$ or $\frac{16}{37}$

55. (5) The maximum probability is drawing Grey ball from Box 3 with probability $\frac{7}{12}$ and the minimum probability is drawing Orange ball from Box 3 with probability $\frac{2}{12}$.

Hence, the ratio = $\frac{7}{2}$

56. (3) Total Letters = 7

Total A = 2,

Total R = 2

Total number of words = $\frac{7!}{2!2!} = 1260$

Now, taking both RR together, we consider there as one unit RR can be arranged in $\frac{2!}{2!}$ ways and the words having both R together = $\frac{6\times5\times4\times3\times2!}{2!} \times \frac{2!}{2!} = 360$

Number of words not having both R together = 1260 – 360 = 900

57. (4) Vipin walk a certain distance in 52 days

So, total time = 52 × 24 = 1248 hours

He takes rest 10 hours per day

So, total rest = 10 × 52 = 520 hours in 52 days

So, he works = 1248 – 520 = 728 hours

Speed (S) = $\frac{x}{728}$

x = 728 × Speed (S) ....(i)

According to question,

2x = 2S × 4D (Where, D = number of days taken by him to complete the distance)

x = 4SD

Using equation (i) and (ii), we get

4SD = 728 × S

D = 182 days

58. (3) Given,

$\frac{\text{Mon+Tue+Wed+Thu}}{4} = 48°$

42° + Tue + Wed + Thu = 192°

Tue + Wed + Thu = 150° ......(i)

And, $\frac{\text{Tue+Wed+Thu+Fri}}{4} = 52°$

150° + Fri = 208° (from eq. (i))

Fri = 58° C

59. (3) CP of mixture of tea = $30 \times \frac{100}{110} = \frac{300}{11}$ rupee/kg

According to law of mixture

Tea1 Tea2

$$\begin{array}{ccc} 25 & & 30 \\ & \frac{300}{11} & \\ \frac{30}{11} & & \frac{25}{11} \end{array}$$

$\frac{\text{tea1}}{\text{tea2}} = \frac{30}{25} = \frac{6}{5}$

∴ Quantity of Tea 1 = $\frac{6}{5} \times 30$ = 36 kg

60. (2) Let 1 kg of each was mixed

weight of copper in this mixture of 2 kg = $1 \times \frac{5}{13} = \frac{5}{13}$ kg

$\therefore$ Weight of copper per kg = $\frac{5}{26}$ kg

61. (1) Required average no. of boys students = $\frac{1}{3} \times \left(\frac{3}{5} \times \frac{90}{360} + \frac{3}{4} \times \frac{75}{360} + \frac{4}{7} \times \frac{63}{360}\right) \times 72000 = 9750$

62. (3) Total no. of girls from Gorakhpur = $\frac{1}{3} \times \frac{60}{360} \times 72000 = 400$

Total no. of boys from Lucknow = $\frac{5}{8} \times \frac{72}{360} \times 72000 = 9000$

Required percentage = $\frac{9000 - 4000}{9000} \times 100 = \frac{500}{9}\%$ less

63. (4) Here, we don't know the actual marks of student from Kanpur and student from Mau. So, we cannot find the required answer.

64. (4) Female from Allahabad = $\frac{90}{360} \times \frac{2}{5} \times 72000 = 7200$

From Gorakhpur = $\frac{60}{360} \times \frac{1}{3} \times 72000 = 4000$

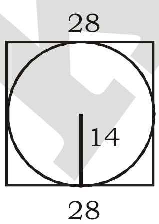
From Kanpur = $\frac{75}{360} \times \frac{1}{4} \times 72000 = 3750$

From Lucknow = $\frac{72}{360} \times \frac{3}{8} \times 72000 = 5400$

From Mau = $\frac{3}{7} \times \frac{63}{360} \times 72000 = 5400$

65. (3) Required no. of students = $\frac{(90 + 60 + 72)}{360} \times 72000 = 44400$

66. (4)



$\therefore$ Required area = $28 \times 28 - \frac{22}{7} \times 14 \times 14 = 784 - 616 = 168\ m^2$

67. (1) Ratio of income of Suresh to Vinod = 13 : 10

Ratio of income of Vinod to Vinay = 4 : 5

Ratio of income of Suresh, Vinod and Vinay = 26 : 20 : 25

Monthly income of Vinod = $\frac{800}{26-25} \times 20 = 16000$

68. (2) Profit = $\frac{11}{(33-11)} \times 100 = \frac{11}{22} \times 100 = 50\%$

69. (2) Selling price of article = $12000 \times \frac{75}{100} = 9000$

Cost price of article = $9000 \times \frac{100}{90} = 10000$

New selling price = 10440

$\therefore$ Required discount = $\frac{1200-10440}{12000} \times 100 = \frac{1560}{12000} \times 100 = 13\%$

70. (1) Cost price of mixture = $80 \times \frac{100}{150} = \frac{160}{3}$

$$\begin{array}{ccc} 100 & & 0 \\ \searrow & & \swarrow \\ & \frac{160}{3} & \\ \nearrow & & \nwarrow \\ \frac{160}{3} & & \frac{140}{3} \end{array}$$

$\frac{\text{Milk}}{\text{Water}} = \frac{160}{140} = \frac{8}{7}$

$\therefore$ Water : Milk = 7 : 8

ENGLISH LANGUAGE

(81-90) :

81. (4) Change ‘charging’ into ‘charge of’.
82. (2) Change ‘enable’ into ‘enables’.
83. (3) Change ‘current's’ into ‘current’.
84. (1) Change ‘deal’ into ‘dealt’.
85. (2) Change ‘employee’ into ‘employees’.
86. (1) Add ‘state’ or 'country' after ‘our’.
87. (5) No error
88. (2) Change ‘in’ into ‘into’.
89. (4) Add 'about' before 'the cutlery'.
90. (4) Change 'to' into 'in'.

VOCABULARIES

Word	Meaning in English	Meaning in Hindi
Hermitage	the dwelling of a hermit, especially when small and remote	आश्रम
Immersed	dip or submerge in a liquid	तल्लीन
Contemplation	the action of looking thoughtfully at something for a long time	चिंतन
Pursuit	the action of following or pursuing someone or something	पीछा
Fugitives	a person who has escaped from a place or is in hiding, especially to avoid arrest or persecution	भगोड़ा
Peremptory	(especially of a person's manner or actions) insisting on immediate attention or obedience, especially in a brusquely imperious way	आज्ञसूचक
Audacity	the willingness to take bold risks	साहस
Hermitage	the dwelling of a hermit, especially when small and remote	आश्रम
Virtuous	having or showing high moral standards	धार्मिक
Inflicted	cause (something unpleasant or painful) to be suffered by someone or something	प्रवृत्त
Hastened	be quick to do something	जल्दी करना
Inevitably	as is certain to happen; unavoidably	अनिवार्य रूप से
Incarnated	embody or represent (a deity or spirit) in human form	अवर्तीण
Engrossed	having all one's attention or interest absorbed by someone or something	तल्लीन
Withstood	remain undamaged or unaffected by; resist	खरे उतरे
Lenient	(of punishment or a person in authority) permissive, merciful, or tolerant	उदार
Galloped	(of a horse) go at the pace of a gallop	सरपट दौड़
Giggle	a light, silly laugh	खिसियाना
Deceive	(of a person) cause (someone) to believe something that is not true, typically in order to gain some personal advantage	धोखा देना
Rendered	provide or give (a service, help, etc.)	प्रस्तुत करना
Mingled	mix or cause to mix together	मिश्रित
Amused	cause (someone) to find something funny; entertain	खुश

SBI CLERK SPECIAL PHASE - I - 291 (ANSWER KEY)

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