SBI CLERK SPECIAL PHASE - I - 293 (SOLUTION)
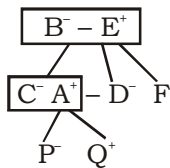
REASONING

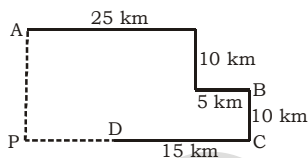**(1–5) :**

```
8 ┬ I
7 ┼ B
6 ┼ F
5 ┼ D
4 ┼ G
3 ┼ E
2 ┼ C
1 ┴ H
```

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

(6 – 8) :

```
      ┌───────┐
      │ B⁻ – E⁺ │
      └───────┘
  ┌──────┐
  │ C⁻ A⁺ │ – D⁻   F
  └──────┘
   P⁻   Q⁺
```
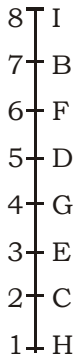
6. (4)   7. (3)   8. (1)

(9–10): For point B to be in the southeast of point A, Shahrukh shall move towards east.

9. (1)

10. (5) $25 + 5 – 15 = 15$ km

(11-16) :

Person	Instrument	Genres
Milia	Flute	Blues
Alex	Veena	Country Music
Ashkay	Violin	Jazz
Billy	Drum	Indie Pop
Pamela	Guitar	Rock
Quinton	Piano	Opera
Rosy	Banjo	R&B

11. (4)   12. (2)   13. (3)   14. (4)   15. (1)   16. (1)

(17-21) :

Input : omit 36 59 yards 41 elect train 12 lakes 85

Step I : 85 omit 36 59 41 elect train 12 lakes yards

Step II : train 85 omit 36 41 elect 12 lakes yards 59

Step III : 41 train *85* 36 **elect** *12* lakes yards 59 omit

Step IV : lakes 41 train 85 elect 12 yards 59 omit 36

Step V : *12 lakes* 41 **train 85 yards 59** omit *36 elect*

17. (5)   18. (5)   19. (2)   20. (2)   21. (4)

(22–26) :

© → ≥   @ → <   ® → = $ → ≤   # → >

22. (2) M < T ≤ R ≥ J

   I. J > M ; Can't say   II. R > M ; true   III. J = T ; Can't Say

23. (5) D ≥ B ≤ H = F

   I. F < B ; Can't say   II. F < D ; Can't say   III. H < D ; Can't say

24. (5) H = M < T ≤ K

   I. K > M ; True   II. T > H ; True   III. H < K ; True

25. (3) N ≤ A > J ≥ D

   I. N < J ; Can't say   II. A ≥ D ; False   III. D < A ; True

26. (2) R = T < M ≤ K

   I. K < R ; False   II. M > R ; True   III. K > T ; True

(27–31) :

Days	Persons	Colours
Monday	G	Pink
Tuesday	B	Silver
Wednesday	E	Blue
Thursday	A	Yellow
Friday	C	Green
Saturday	D	Orange
Sunday	F	Red

27. (1)   28. (4)   29. (3)   30. (5)   31. (2)

(32-35) :

System → pi   Development → si

and → chi   Market → li

settlement → ti   Payment → hi

financial → xi   Inclusion → ni

32. (4)   33. (1)   34. (5)   35. (4)

MATHS

36. (2) ? = $\dfrac{623898 \times 99}{60000}$ = 1029.43 ≈ 1030

37. (3) ? = $\dfrac{4}{3} \times \dfrac{3}{7} \div \dfrac{6}{7} \div \dfrac{5}{9} = \dfrac{4}{5} \times \dfrac{3}{7} \times \dfrac{7}{6} \times \dfrac{9}{5} = \dfrac{18}{25}$

38. (1) $(399.98)^2 = ?$

   $? \approx (400)^2 = 160000$

39. (3) $\sqrt{624.9995} + (4.9989)^2 = ? \div \dfrac{1}{4.9900865}$

   $\sqrt{625} + (5)^2 \approx ? \div \dfrac{1}{5}$

   $25 + 25 \approx ? \times 5$

   $? = \dfrac{50}{5} = 10$

40. (3) $989.001 + 1.00982 \times 76.792 = ?$

   $? \approx 989 + 1 \times 77$

   $= 989 + 77 = 1066 \approx 1065$

41. (1) Difference $= 8.6 \times \dfrac{22}{100} - 5.4 \times \dfrac{15}{100}$

   $= 1.892 - 0.81 = 1.082$ lakh $= 108200$

42. (4) $C_{2000} = 5.4 \times \dfrac{10}{100} = 0.54$ lakh

   $C_{2010} = 8.6 \times \dfrac{8}{100} = 0.688$

   $\therefore$ Required average $= \dfrac{0.54 + 0.688}{2}$

   $= \dfrac{1.228}{2}$ lakh $= 61400$

43. (3) Sum $= 5.4 \times \dfrac{8}{100} + 8.6 \times \dfrac{18}{100}$

   $= 0.432 + 1.548 = 1.98$ lakh

44. (4) Total number of vacancies in 2010

   $= \dfrac{48000 \times 100}{6} = 800000$

   $\therefore$ Vacancies in city B = 20% of 800000

   $= 160000 = 1.60$ lakh

45. (5) $C_{2000} = 5.4 \times \dfrac{10}{100} = 0.54$ lakh

   $C_{2010} = 8.6 \times \dfrac{8}{100} = 0.688$ lakh

   $\therefore$ Percenatage rise $= \left(\dfrac{0.688 - 0.54}{0.54} \right) \times 100$

   $= 27.407\% \approx 27.41\%$

46. (3) Let one worker of category I can finish the work in $\dfrac{2m}{3}$ h.

Two workers of category II can finish the work in $\dfrac{m}{2}$ h.

So, required time = $\dfrac{\dfrac{2m}{3} \times \dfrac{m}{2}}{\dfrac{2m}{3} + \dfrac{m}{2}} = \dfrac{2m^2}{7m} = \dfrac{2}{7}m/h$

47. (3) According to the question,

Average speed = $\dfrac{2xy}{x+y}$ where x and y are two different speeds covering same distance

∴ Average speed = $\dfrac{2 \times 40 \times 20}{(20 + 40)}$ = 26.66 km/h

48. (1) According to question,

SI for 10 years = $\dfrac{1000 \times 5 \times 10}{100}$ = ₹ 500

Now, P = ₹1500, A = ₹ 2000

SI = ₹ 500

$500 = \dfrac{1500 \times 5 \times T}{100}$

T = $\dfrac{500 \times 100}{1500 \times 5}$ = $6\dfrac{2}{3}$ years

∴ Total time = $\left(10 + 6\dfrac{2}{3}\right)$ years = $16\dfrac{2}{3}$ years

49. (4) Let the number of passengers travelling by Ist Class and IInd Class be x and $50x$ respectively.
Then amount collected from Ist Class and IInd Class will be ₹ $3x$ and ₹ $50x$ respectively.
Given, $3x + 50x = 1325$
$53x = 1325$
$x = 25$
∴ Amount collected from IInd Class = 50 × 25 = ₹ 1250

50. (2) According to question,
(17 + 19) = 36% of the cost price = ₹ 162

100% of the cost price = $\dfrac{162}{36} \times 100$ = ₹ 450

51. (4) The given series is based on the following pattern:
$5 \times 1 + 1^2 = 6$
$6 \times 2 + 2^2 = 16$
$16 \times 3 + 3^2 = 57$
$57 \times 4 + 4^2 = 244$
$244 \times 5 + 5^2 = 1245$
Similarly,
$2 \times 1 + 1^2 = 3$
$3 \times 2 + 2^2 = 10$
$10 \times 3 + 3^2 = 39$
$39 \times 4 + 4^2 = \mathbf{172}$

52. (5) The given series is based on the following pattern:

$3 + (2)^1 = 5$

$5 + (2)^2 = 9$

$9 + (2)^3 = 17$

$17 + (2)^4 = 33$

$33 + (2)^5 = 65$

Similarly,

$7 + (2)^1 = 9$

$9 + (2)^2 = 13$

$13 + (2)^3 = 21$

$21 + (2)^4 = \mathbf{37}$

53. (3) The given series is based on the following pattern:

$7 \times 0.5 + 0.5 = 4$

$4 \times 1 + 1 = 5$

$5 \times 1.5 + 1.5 = 9$

$9 \times 2 + 2 = 20$

$20 \times 2.5 + 2.5 = 52.5$

Similarly,

$3 \times 0.5 + 0.5 = 2$

$2 \times 1 + 1 = 3$

$3 \times 1.5 + 1.5 = \mathbf{6}$

54. (2) The given series is based on the following pattern:

$3 \times 3 + 1 = 10$

$10 \times 3 + 2 = 32$

$32 \times 3 + 3 = 99$

$99 \times 4 + 4 = 400$

Similarly,

$2 \times 3 + 1 = 7$

$7 \times 3 + 2 = \mathbf{23}$

55. (1) The given series is based on the following pattern:

$5 \times 2 - 2 = 8$

$8 \div 2 + 2 = 6$

$6 \times 2 - 2 = 10$

$10 \div 2 + 2 = 7$

$7 \times 2 - 2 = 12$

Similarly,

$7 \times 2 - 2 = 12$

$12 \div 2 + 2 = 8$

$8 \times 2 - 2 = \mathbf{14}$

56. (4) $\dfrac{I_Q}{E_Q} = 1.05$

$\dfrac{I_P}{E_P} = 0.75$

$\therefore$ Required% = $\dfrac{1.05}{0.75} \times 100 = 140\%$

57. (4) Exports of Q in year 2008 can't be determined.

58. (1) The ratio of imports to exports is the same for Company P in the year 2007 and Company Q in the year 2004, then the sum of their imports will be $(I_P + I_Q)$

    $= 0.8 \times (E_P + E_Q) = 0.8 \times 180 = 144$ lakh

59. (4) $\dfrac{I_P}{E_P} = 0.75$

    $I_P = 0.75 \times E_P = 0.75 \times 120 = 90$ lakh

    $\dfrac{I_Q}{E_Q} = 0.6$

    $E_Q = \dfrac{I_Q}{0.6} = \dfrac{120}{0.6} = 200$ lakh

    $\therefore$ Required difference $= 200 - 90 = 110$ lakh

60. (1) $\dfrac{I_P}{E_P} = 0.5$

    $E_P = \dfrac{I_P}{0.5} = \dfrac{80}{0.5} = 160$ lakh

    $\dfrac{I_Q}{E_Q} = 1.2$

    $I_Q = 1.2 \times 60 = 72$ lakh

    $\therefore$ Required% $= \dfrac{72}{160} \times 100 = 45\%$

61. (3) According to question,

    the product of four numbers will be positive in the following ways.

    (i) All the four numbers are postive, then probability $= \dfrac{{}^{6}C_4}{{}^{14}C_4}$

    (ii) All the four numbers are negative, then probability $= \dfrac{{}^{8}C_4}{{}^{14}C_4}$

    (iii) Two numbers are positive and two are negative, then probability $= \dfrac{{}^{6}C_2 \times {}^{8}C_2}{{}^{14}C_4}$

    Hence, required probability of the event $= \dfrac{{}^{6}C_4 + {}^{8}C_4 + {}^{6}C_2 \times {}^{8}C_2}{{}^{14}C_4}$

    $= \dfrac{15 + 70 + 15 \times 28}{1001} = \dfrac{505}{1001}$

62. (2) Seats in executive class = 10% of 500 = 50

    Seats in chair car = 500 – 50 = 450

    Booking seats in total = 85% of 500 = 425

    Booking in executive class = 96% of 50 = 48

    Booking in chair class = (425 – 48) = 377

    Empty seats in chair class = 450 – 377 = 73

63. (1) Let the amount invested by Ram and Shyam is $3x$ and $5x$ respectively and after 6 month Mohan joined amount equal to Shyam.

    Then, Ratio of Ram, Shyam and Mohan in profit

    $= 3x \times 12 : 5x \times 12 : 5x \times 6 = 6 : 10 : 5$

64. (3) Let the side of the square be x.

Then, $\left(\sqrt{2}x\right)^2 = \left(12\sqrt{2}\right)^2$

$x = 12$

Now, perimeter of equilateral triangle = $12 \times 4 = 48$ cm

Side of equilateral triangle = $\dfrac{48}{3} = 16$ cm

Area of equilateral triangle = $\dfrac{\sqrt{3}}{4} \times (16)^2 = 64\sqrt{3}$ cm^2

65. (2) Let the share of Q be ₹ x.

Then, the share of P is ₹ $(30600 - x)$.

$x \times \left(1 + \dfrac{4}{100}\right)^3 = (30600 - x)\left(1 + \dfrac{4}{100}\right)^2$

$x \times \dfrac{104}{100} = 30600 - x$

$\dfrac{204}{100}x = 30600$

$x = \dfrac{30600 \times 100}{204} = ₹\ 15000$

66. (5) I. $p^2 + 3p + 2p + 6 = 0$

$p(p + 3) + 2(p + 3) = 0$

$(p + 3)(p + 2) = 0$

$p = -2$ or -3

II. $q^2 + q + 2q + 2 = 0$

$q(q + 1) + 2(q + 1) = 0$

$(q + 1)(q + 2) = 0$

$q = -1$ or -2

Obviously, $p \leq q$

67. (4) I. $p = \pm 2$

II. $q^2 + 2q + 2q + 4 = 0$

$q(q + 2) + 2(q + 2) = 0$

$(q + 2)(q + 2) = 0$

$q = -2$

Obviously, $p \geq q$

68. (2) I. $p^2 + p - 56 = 0$

$p^2 + 8p - 7p - 56 = 0$

$p(p + 8) - 7(p + 8) = 0$

$(p + 8)(p - 7) = 0$

$p = 7$ or -8

II. $q^2 + 17q + 72 = 0$

$q - 8q - 9q + 72 = 0$

$q(q - 8) - 9(q - 8) = 0$

$(q - 8)(q - 9) = 0$

$q = 8$ or 9

Obviously, $p < q$

69. (1) We have,

    $3p + 2q = 58$ ....(i)

    $4p + 4q = 92$

    $2p + 2q = 46$ ...(ii)

    By (i) – (ii) we get $p = 12$

    From (i), $3 \times 12 + 2q = 58$

    $2q = 58 - 36 = 22$

    $q = 11$

    Obviously, $p > q$

70. (2) I. $3p^2 + 15p + 2p + 10 = 0$

    $3p(p + 5) + 2(p + 5) = 0$

    $(p + 5)(3p + 2) = 0$

    $p = -5 \text{ or } -\dfrac{2}{3}$

    II. $10q^2 + 5q + 4q + 2 = 0$

    $5q(2q + 1) + 2(2q + 1) = 0$

    $(2q + 1)(5q + 2) = 0$

    $q = -\dfrac{1}{2}, -\dfrac{2}{5}$

    Obviously, $p < q$

ENGLISH LANGUAGE

96. (4) Replace 'applies' by 'apply', as it shall follow infinitive.

97. (3) Replace 'efforts' by 'effort'.

98. (1) Replace 'from' by 'of'

99. (2) Replace 'ambitious' as it is superfluous.

100. (2) Replace 'necessary' by 'necessarily'.

VOCABULARIES

Words	Meaning in English	Meaning in Hindi
trajectory	A path or a course of some action	पथ, ढर्रा
Capitalism	An economic system in which a country's businesses and industry are controlled and run for profit by private owners rather than by the government	पूँजीवादी व्यवस्था
Bourgeois	Related to middle class and convensional people	मध्यमवर्गीय
Feudalism	The social system that existed during the Middle Ages in Europe in which people were given land and protection by a nobleman, and had to work and fight for him in return	सामंतवादी/जागीरदारी प्रथा
Transcending	Be or go beyond the range or limits of something abstract	सर्वत्र व्याप्त
Unifying	Make or become united	एक करते हुए
Modus operandi	A particular established method of doing something	कार्य प्रणाली
Manipulation	Exerting shrewd or devious influence especially for one's own advantage	जोड़-तोड़, हथकंडा
Historigraphy	The study of historical writing	ऐतिहासिक लेखनों का अध्ययन
Overaching	Forming an arch over something	व्यापक
Consciousness	The state of being awake and aware of one's surroundings	चेतना, समझ
Portrayed	Depict something in a work of art or literature	पेश करना
Colonialism	The policy or practice of acquiring full or partial political control over another country,	उपनिवेशवाद
Subvert	Undermine the power and authority of (an established system or institution)	भंग करना
Undermined	Damage or weaken something especially gradually	नष्ट करना

SBI CLERK SPECIAL PHASE - I - 293 (ANSWER KEY)

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