

## SBI PO Preliminary Grand Test –SPP-180760

### HINTS & SOLUTIONS

#### ANSWER KEY

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

#### HINTS & SOLUTIONS

1. (1) The correct order of the phrases is BDCE making the sentence meaningful. Phrase (A) does not provide any meaning with respect to the other phrases and hence is irrelevant here. Phrases (B) and (D) can easily be identified as interlinked as 'to+ accept' will act like verb which must be followed by a noun or pronoun (impermanence). Hence option (1) is the correct choice to be made.
2. (1) Phrases DBCA form a coherent sentence making the sentence meaningful. Phrase (D) will form the first part of the sentence as started with pronoun (we). Moreover, the word 'ego' finds no relevance in the sentence. Hence phrase (E) will not be a part of the sentence formed. Therefore option (1) is the correct choice here.
3. (3) The sequence of the phrases after rearrangement is DECA. We can easily point out that clauses (E) and (C) are interlinked with each other as 'love' and 'devotion' is contributing the similar sense. Clause (B) fails to get linked with the other clauses of the sentence. Hence option (3) is the correct and appropriate choice.
4. (5) The given sentence is making complete sense and doesn't require any further changes or restructuring. All clauses are contributing an error free sentence. Hence, option (5) is the appropriate choice.
5. (3) The correct sequence after the rearrangement of the phrases is EADB. Clause (E) will serve as the first clause as 'All life' will be the subject of the sentence as 'noun'. Moreover, part (C) of the

sentence does not find any connection with the other parts of the sentence and therefore option (3) is the correct choice.

6. (5) All the parts of the sentence are contributing an error free sentence and hence does not require any rearrangement to be made.

Hence option (5) is the right choice.

7. (2) The phrases after rearrangement forms a sequence CBAD. We can identify phrases (C) and (B) as interlinked because here 'to +accept' will behave as verb which always takes an object (noun or pronoun) with it. Here 'an apology' is a noun. Phrase (E) is not a part of the sentence as the word used 'their' bears no resemblance with other phrases of the sentence. Hence option (2) is the correct choice to be made.

8. (3) Clauses AEDB are making the sentence coherent while clause (C) is not a part of the sentence formed. We can get the hint through clauses (E) and (D) which are related to each other as the object of the both the clauses is something related to 'our' (our past experiences, fears, anxieties, perceptions and our own desires). Part (C) fails to connect with theme of the sentence. Hence option (3) is the correct choice.

9. (3) Clauses BADE form a coherent sentence after rearrangement and clause (C) bears no resemblance here as the sentence (phrases B, D and E) is referring to the third person (themselves, those) whereas clause (3) is referring to 'our'. Clause (B) will be the first part of the sentence.

Hence option (3) is the correct choice.

10. (1) The correct sequence of the phrases formed is CBAD. We can get the hint from phrase (C) that is forming the first part of the sentence as it is starting from 'since' for telling the reason whereas phrase (E) is irrelevant here which is talking about the some 'aid' which is not mentioned in the other parts. Hence option (1) is correct.

11. (4) Here apocryphal means of doubtful authenticity, although widely circulated as being true. We can conclude from first paragraph that Lee Kuan Yew considered Kolkata worth a role model, even in its decline state, which seems to be a fictitious story.

Hence option (4) is the correct explanation in accordance to the passage. All the other explanations are not appropriate.

Refer the lines from first paragraph "It is likely an apocryphal story, but telling for all of that. Even in its decline, the former first city of India could plausibly be considered worthy of emulation by a leader..."

12. (2) We can come to the conclusion after going through second paragraph of the passage, which clearly indicates that mid-19th century marks a beginning of first economic cycle that resulted in sharp increase of cotton prices internationally due to American Civil War and construction of Suez Canal, hence building the economic strength. Collapse of City's textile mill will also come in this category, which triggered a shift in Mumbai's economic paradigm. Hence option (2) will be the most appropriate choice.

Refer the lines "... the American Civil War that caused cotton prices to spike internationally and the construction of the Suez Canal. The first played to Mumbai's industrial strength and the second to its being a strategically located port city. The cycle lasted for a century, ending with the collapse of the city's textile mill heartland in the early 1980s..."

13. (4) With respect to the fourth paragraph, both the sentences (1) and (2) are correct.  
Refer the lines "A healthy economic future as a financial nerve centre is certainly viable. But it is no coincidence that New York, London, Hong Kong and Shanghai—leading financial hubs, all—are also now start-up and tech hubs. The barriers between the two industries are increasingly permeable. The latter is both disrupting and enabling the former. Mumbai is poorly placed for such cross-pollination."  
"Early stage funding is still relatively healthy—but growth capital and achieving scale are increasingly less so." Hence option (4) is the correct choice.
14. (4) With reference to the fifth paragraph of the passage, we can conclude that sentences (II) and (III) are correct. It has been mentioned that Marathi workers were among the highest paid workers that dominated the other work force resulting into the rise in tertiary sector and decline in secondary sector.  
Hence option (4) is the most appropriate choice.  
Sentence (I) is not related to the passage.  
Refer the lines "The increasing reliance on the tertiary sector poses sociopolitical questions as well. Mumbai's textile mill workers were among the best paid industrial workers in India. Marathi workers dominated this workforce; it also gave low-skilled migrants an opportunity to enter the formal labour force. It's no coincidence that parochial politics gained ground in Mumbai with the decline of the secondary sector and the rise of a tertiary sector that required higher skilled workers."  
"Mapping Mumbai's future: the big questions" is an appropriate title of the passage.
15. (1) "Mapping Mumbai's future: the big questions" is an appropriate title of the passage.
16. (4) Both sentences (2) and (3) are correct.  
Refer the first paragraph of the passage "The Mumbai Development Plan (MDP) 2034, unveiled last week, aims at building on the city's economic pre-eminence over the next two decades. It is a mixed bag from an urban planning perspective."
17. (1) Insidious means proceeding in a gradual, subtle way, but with very harmful effects. Hence it has the similar meaning as sneaky.  
Preclude means prevent from happening; make impossible.  
Sneaky means furtive; sly.  
Impetus means the force or energy with which a body moves.
18. (2) Detritus means waste or debris of any kind. Hence it has the same meaning as dregs and wreckage.  
Consent means give permission for something to happen.  
Spur means a thing that prompts or encourages someone; an incentive.
19. (2) Ceding means give up (power or territory). Hence it has the opposite meaning to attaining and acquiring.  
Concurring means be of the same opinion; agree.
20. (3) Inevitable means certain to happen; unavoidable. Hence it has the opposite meaning to avoidable and uncertain.  
Concede means admit or agree that something is true after first denying or resisting it.  
Alleviate means make (suffering, deficiency, or a problem) less severe.
21. (2) Option (2) is the correct choice as both Tangible and palpable fit the blank appropriately.  
**Tangible** means perceptible by touch.  
**Palpable** means (of a feeling or atmosphere) so intense as to seem almost tangible.  
**Mystic** means inspiring a sense of spiritual mystery, awe, and fascination.  
**Spectacular** means beautiful in a dramatic and eye-catching way.
22. (4) Combination A-D is correct as it is adding the meaning that the anger is so significant that the ruling class is terrified.  
Option (4) is the correct choice for the given question.  
**Allude** means suggest or call attention to indirectly; hint at.  
**Wrest** means forcibly pull (something) from a person's grasp.  
**Seize** means take hold of suddenly and forcibly.  
**Smear** damage the reputation of (someone) by false accusations; slander.  
Combination (B-C) is correct as these words are imparting the meaning that control is being taken away from the current directors. Other words are not contextually correct.
23. (4) Option (4) is the correct choice for the given question. **Insightful** means having or showing an accurate and deep understanding; perceptive.  
**Incisive** means (of a person or mental process) intelligently analytical and clear-thinking.  
**Emulate** means match or surpass (a person or achievement), typically by imitation.  
**Ferocious** means savagely fierce, cruel, or violent.  
Option (2) is the correct choice for the given question.  
**Augur** means (of an event or circumstance) portend a good or bad outcome.  
**Instill** means gradually but firmly establish (an idea or attitude) in a person's mind.  
**Receded** means go or move back or further away from a previous position.  
Option (5) is the correct choice for the given question.  
C-D is the correct word combination.  
**Implicate** means bear some of the responsibility for an action process.  
**Gratify** means give (someone) pleasure or satisfaction.  
**Involve** means have or include (something) as a necessary or integral part or result.  
**Comply** means act in accordance with a wish or command.  
Implicate and Involve are similar in meaning and fits the blank appropriately.
24. (2) Statements I and II contain grammatical errors whereas statements III and Statements IV are grammatically correct. In case of statement I, 'Yourself' should be replaced with 'Oneself.' Here, 'One' is acting as a subject for the sentence hence it should take reflexive pronoun **Oneself** and not 'Yourself' for it. In the case of statement II, it should be '**donkeys' years**' and not '**donkey years**' which is a phrase used to imply '**a very long time.**'  
Both statement III and Statement IV are grammatically correct and therefore requires no correction. Hence, option (3) is the most suitable choice.
25. (5) Statement II is grammatically correct. Other statements contain errors. In case of Statement I, 'mile' should be replaced with 'miles' to make the sentence grammatically correct. The number of units of distance travelled by the lava is more than the unity and hence, the units will be depicted in plural form. For instance, five miles, six miles etc. In case of Statement III, two-third will be replaced with two-thirds as it depicts a plural subject or 2 parts out of the three parts of the whole and this can be verified with the use of plural verb 'are' in the latter half of the sentence. In case of Statement IV, it should be '**to compare ourselves with**' in place of "**to compare ourselves to**". As '**compared to**' is used when resemblance to something is made. For example, 'He compared the children to flowers in the spring', whereas **compared with** is used to show contrast or difference between objects regarded as essentially of the same order. Hence, option(1) is the most suitable choice.
26. (3) Out of all the statements provided, only Statement (I) is grammatically correct. In case of statement II, there is an
27. (1)
28. (4)

omission of preposition 'on' after embarked. The correct statement will have 'embarked on' as part of the sentence which is used to denote the new journey or new initiative taken by the India. In case of Statement III, the preposition 'on' will be substituted by 'under'. 'Under' is used to denote who or what controls, governs or manages somebody/something. For example-The country is now under martial law. Here it is showing that it is governed or controlled by same brand.

In case of statement IV, "rouse" will be substituted by "roused" as the sentence is in past tense. Therefore, it should take the past tense of rouse which means to awaken or rise to. Hence, option (4) is the most suitable choice.

29. (4) All the statements except for the statement II are incorrect. In case of statement I, "moving to" should be replaced with "moving towards". As towards is used to imply 'in the direction of'.

In case of statement III, "Between" should be replaced with "Among" as the sentence is talking about developing countries. 'Among' is used for more than two things whereas 'between' is used for two things. In case of statement IV, it should be "to suggest" in place of "to suggests" as infinitive takes first form of the verb after it (to+ v1). Hence, option (4) is the most suitable choice.

30. (3) Of all the statements provided, Statement I and statement IV are devoid of any errors. In case of statement II, it should be 'sync to' in place of 'sync with.' As 'sync with' shows synchronization with the environment or its functioning. In case of Statement III, in place of 'comply on' it should be 'comply with.' The correct phrasal verb is 'Comply with' which implies to follow or adhere to a particular rule or regulation. Hence, option (3) is the most suitable choice.

31. (1) I.  $x^2 - 4x - x + 4 = 0$   
 $(x - 1)(x - 4) = 0$   
 $x = 1, 4$   
 II.  $y^2 + 2y + y + 2 = 0$   
 $y(y + 2) + 1(y + 2) = 0$   
 $(y + 1)(y + 2) = 0$   
 $\Rightarrow y = -1, -2$   
 $\Rightarrow x > y$

32. (2) I.  $6x^2 - 2x - 3x + 1 = 0$   
 $2x(3x - 1) - 1(3x - 1) = 0$   
 $(2x - 1)(3x - 1) = 0$   
 $x = \frac{1}{2}, \frac{1}{3}$   
 II.  $15y^2 - 3y - 5y + 1 = 0$   
 $3y(5y - 1) - 1(5y - 1) = 0$   
 $(3y - 1)(5y - 1) = 0$   
 $y = \frac{1}{3}, \frac{1}{5}$   
 $\Rightarrow x \geq y$

33. (5) I.  $x^2 + 4x + x + 4 = 0$   
 $x(x + 4) + 1(x + 4) = 0$   
 $(x + 1)(x + 4) = 0$   
 $x = -1, -4$   
 II.  $y^2 - 7y + 2y - 14 = 0$   
 $(y - 7)(y + 2) = 0$   
 $y = -2, 7$   
 $\Rightarrow$  No relation

34. (3) I.  $x^2 + 4x + 5x + 20 = 0$   
 $(x + 4)(x + 5) = 0$   
 $x = -4, -5$   
 II.  $y^2 + 3y + y + 3 = 0$   
 $(y + 1)(y + 3) = 0$   
 $y = -1, -3$   
 $\Rightarrow x < y$

35. (2) I.  $x^2 - 4x - 2x + 8 = 0$   
 $(x - 4)(x - 2) = 0$   
 $x = 2, 4$   
 II.  $y^2 + 4y - 2y - 8 = 0$   
 $(y + 4)(y - 2) = 0$   
 $y = -4, 2$   
 $\Rightarrow x \geq y$

36. (3) Import of company B in 2015 =  $58.2 \text{ lakh} \times \frac{10}{6}$   
 $= 97 \text{ lakhs}$   
 Import of company A in 2014 =  $48.6 \text{ lakh} \times \frac{10}{9}$   
 $= 54 \text{ lakhs}$   
 Required difference =  $97 \text{ lakhs} - 54 \text{ lakhs}$   
 $= 43 \text{ lakhs}$

37. (5) Let export of company A in 2012 =  $7x$   
 $\therefore$  import of company A in 2012 =  $10x$   
 ATQ,  

$$\text{Required Ratio} = \frac{7x \times \frac{120}{100}}{10x \times \frac{175}{100}} = \frac{7 \times 120}{10 \times 175} = 12 : 25$$

38. (1) Import of company B in 2013  
 $= 49 \text{ lakh} \times \frac{10}{7} = 70 \text{ lakh}$   
 Export of company A in 2016  
 $= 48 \text{ lakh} \times \frac{15}{10} = 72 \text{ lakh}$   
 Required percent =  $\frac{70}{72} \times 100 = 97\frac{2}{9}\%$

39. (3) Let export and import of company A in 2014 be  $9x$  and  $10x$  respectively.  
 Let export and import of company B in 2014 be  $6y$  and  $5y$  respectively.  
 $\therefore$  ATQ,  
 $9x + 6y = 10x + 5y$   
 $\Rightarrow x = y$  .....(i)  
 Required percent =  $\frac{(10x - 5y)}{5y} \times 100$   
 $= \frac{(10x - 5x)}{5x} \times 100 = 100\%$  using (i)

40. (2) Let export and import of company A be  $9x$  and  $10x$  respectively.  
 Let export and import of company B be  $5y$  and  $10y$  respectively.  
 ATQ,  
 $9x = 72 \text{ lakh}$   
 $x = 8 \text{ lakh}$   
 also,  $10x = 10y$   
 $\Rightarrow x = y = 8 \text{ lakh}$   
 Required difference  
 $= \frac{1}{2}[10x + 10y] - \frac{1}{2}[9x + 5y]$   
 $= \frac{1}{2}[10 \times 8 + 10 \times 8] - \frac{1}{2}[9 \times 8 + 5 \times 8]$   
 $= 80 \text{ lakhs} - 56 \text{ lakhs}$   
 $= 24 \text{ lakhs}$

41. (4) Let export and import of company B in 2012 be  $4x$  and  $5x$  respectively.  
 Let export and import of company B in 2015 be  $3y$  and  $5y$  respectively.  
 ATQ,  
 $4x \times \frac{150}{100} = 3y$   
 $\Rightarrow 6x = 3y \Rightarrow y = 2x$   
 Required percent =  $\frac{5y - 5x}{5x} \times 100$   
 $= \frac{(10x - 5x)}{5x} \times 100$   
 $= 100\%$

# Grand Test – SPP 180760



42. (2) Let investment of A, B, C be 2x, 5x and 7x respectively.  
 Let extra amount added by 'A' after six months be Rs. y  
 ATQ,  
 $2x + y = \frac{1}{2} [5x + 7x]$   
 $2x + y = 6x$   
 $y = 4x$   
 Ratio of profit share  
 $A - \frac{2x \times 6 + (4x + 2x) \times 6}{5x \times 12} = 48 : 60 : 84$   
 $B - \frac{5x \times 12}{7x \times 12} = 4 : 5 : 7$   
 B's share of profit = Rs 4250  
 $\Rightarrow 5 \rightarrow 4250$   
 $\Rightarrow 1 \rightarrow 850$   
 $\Rightarrow (4 + 5 + 7) = 16 \rightarrow 16 \times 850 = 13600$   
 Total profit = Rs. 13600.

43. (4) Area of square =  $a^2$  (a- side of square)  
 ATQ—  
 $a^2 = 729$  cm. sq.  
 $a = 27$  cm  
 Perimeter of square = perimeter of rectangle  
 $4a = 2(\ell + b)$   
 $4 \times 27 = 2(2b + b)$   
 $b = 18$  cm  
 $\ell = 36$  cm  
 Area of rectangle =  $(36 \times 18) = 648$  cm.Sq.

44. (5) Let speed of boat in still water = y kmph  
 Speed of boat in Upstream =  $(y - 3)$  kmph  
 Speed of boat in downstream =  $(y + 3)$  kmph  
 ATQ,  
 $y = \frac{(100 + 50)}{100} \times (y - 3)$   
 $y = \frac{150}{100}(y - 3)$   
 $2y = 3y - 9$   
 $y = 9$  kmph  
 Also,  
 $\frac{135}{(9 + 3)} + \frac{135}{(9 - 3) + x} = 15$  [using time =  $\frac{\text{Distance}}{\text{speed}}$ ]  
 $135 \left[ \frac{1}{12} + \frac{1}{6 + x} \right] = 15$   
 $\Rightarrow \frac{6 + x + 12}{12(6 + x)} = \frac{1}{9}$   
 $\Rightarrow (18 + x) \times 9 = 12(6 + x)$   
 $\Rightarrow x = 30$  kmph

45. (1) Distance travelled by Train 'P' in 4 hours =  $120 \times 4 = 480$  km  
 Train Q will meet train P after =  $\frac{480}{160 - 120} = 12$  hours  
 Train Q will be 48 km ahead of train P in  
 $T = 12 + \frac{48}{160 - 120}$   
 $T = 12 + 1.2$   
 $T = 13.2$  hrs  
 Speed of Jeep =  $\frac{62.5}{100} \times 120 = 75$  kmph  
 Required distance travelled by Jeep =  $75 \times (T + 6.8)$   
 $= 75 \times (13.2 + 6.8)$   
 $= 75 \times 20$   
 $= 1500$  km

46. (2) Cars sold by companies C and D together  
 $= 320 \times \frac{37.5}{100} + 520 \times \frac{55}{100}$   
 $= 120 + 286$   
 $= 406$   
 Cars that remain unsold by Companies B and E together  
 $= \left( 275 - 275 \times \frac{64}{100} \right) + \left( 485 - 485 \times \frac{60}{100} \right)$   
 $= 99 + 194$   
 $= 293$   
 Required more %  
 $= \frac{(406 - 293)}{293} \times 100$   
 $= \frac{11300}{293} = 38.56\% \approx 39\%$

47. (1)

Cars sold by Company F =  $280 \times \frac{67.5}{100}$   
 $= 189$   
 % of petrol cars sold =  $\left( 100 - 66\frac{2}{3} \right) = 33\frac{1}{3}\%$   
 Number of petrol cars sold =  $189 \times 33\frac{1}{3} \times \frac{1}{100}$   
 $= 189 \times \frac{100}{300}$   
 $= 63$   
 Number of petrol cars manufactured in 2017 =  $280 \times \frac{4}{(3 + 4)}$   
 $= 280 \times \frac{4}{7}$   
 $= 160$   
 Required number of petrol cars that remains unsold  
 $= 160 - 63$   
 $= 97$

48. (5)

Total cars manufactured by six companies together in 2017  
 $= 620 + 275 + 320 + 520 + 485 + 280 = 2500$   
 Total cars manufactured by six companies together in 2016  
 $= 2500 \times \frac{100 - 44}{100} = 2500 \times \frac{56}{100} = 1400$   
 Total number of cars remains unsold in 2016  
 $= \frac{1400}{20} \times 7 = 490$

49. (3)

Total no. of cars sold by C =  $320 \times \frac{37.5}{100} = 120$   
 Total number of cars that remain unsold by C =  $320 - 120$   
 $= 200$   
 Profit got by C on selling cars  
 $= 120 \times 2$  lakh  
 $= 240$  lakh  
 Loss incurred by C for cars that remain unsold  
 $= 200 \times 80,000$   
 $= 160$  lakh  
 Overall profit =  $(240 - 160)$  lakh  
 $= 80$  lakh

50. (5)

Total cars manufactured by B, C and F together in 2017  
 $= 275 + 320 + 280$   
 $= 875$   
 Total cars manufactured by B, C and F together in 2016  
 $= 875 \times \frac{(100 + 40)}{100}$   
 $= 875 \times \frac{140}{100}$   
 $= 1225$   
 Total cars sold by (B + C + F) in 2017  
 $= 275 \times \frac{64}{100} + 320 \times \frac{37.5}{100} + 280 \times \frac{67.5}{100}$   
 $= 176 + 120 + 189 = 485$   
 Total cars sold by (B + C + F) in 2016  
 $= 485 \times \frac{180}{100}$   
 $= 873$   
 Cars that remain unsold in 2016 in (B + C + F) together  
 $= 1225 - 873$   
 $= 352$

51. (5)

Pattern is :  
 $+35, +46, +58, +71, +85$   
 $\frac{+11}{+11} \frac{+12}{+12} \frac{+13}{+13} \frac{+14}{+14}$   
 So, Wrong number is — 332  
 Right number should be =  $246 + 85 = 331$

52. (3)

Pattern is —  
 $18 \times 4 = 72,$   
 $72 \div 2 = 36,$   
 $36 \times 4 = 144,$   
 $144 \div 2 = 72$   
 $72 \times 4 = 288$   
 So wrong number is — 150

53. (2)

Pattern is —  
 $25 + (2^2 + 2) = 31$   
 $31 + (3^2 + 3) = 43$   
 $43 + (4^2 + 4) = 63$   
 $63 + (5^2 + 5) = 93$   
 $93 + (6^2 + 6) = 135$   
 So, wrong number is — 44

54. (5)

Pattern is —  
 $15 + (13 \times 1 - 1) = 27$   
 $27 + (13 \times 2 - 2) = 51$   
 $51 + (13 \times 3 - 3) = 87$   
 $87 + (13 \times 4 - 4) = 135$   
 $135 + (13 \times 5 - 5) = 195$   
 Wrong number is 196

55. (1)

$47 + 3^2 = 56$   
 $56 + 5^2 = 81$   
 $81 + 7^2 = 130$   
 $130 + 9^2 = 211$   
 $211 + 11^2 = 332$

Wrong number is 57

56. (5)

Let total number of girls in classroom = x

ATQ—

$$\frac{{}^x C_1}{{}^{48} C_1} = \frac{3}{8}$$

$$\frac{x}{48} = \frac{3}{8}$$

$$x = 18$$

Total number of boys in class =  $48 - 18 = 30$

57. (2)

Let breadth of rectangle is x cm

ATQ—

$$2\pi r + (\ell \times b) = 714$$

$$2 \times \frac{22}{7} \times \frac{21}{2} + (2x \times x) = 714$$

$$2x^2 = 714 - 66$$

$$2x^2 = 648$$

$$x^2 = 324$$

$$x = 18 \text{ cm}$$

$$\text{length of rectangle} = 18 \times 2 = 36 \text{ cm}$$

$$\text{Required difference} = 36 - \frac{21}{2}$$

$$= \frac{51}{2}$$

$$= 25.5 \text{ cm}$$

58. (4)

Let speed of train P =  $S_p$

ATQ—

$$S_p = \frac{175}{8.75} = 20 \text{ m/s}$$

Let speed of train Q =  $S_q$

ATQ—

$$20 + S_q = \frac{(175 + 225) \times 7}{60}$$

$$S_q = \frac{400 \times 7}{60} - 20$$

$$S_q = \frac{80}{3} \text{ m/s}$$

Relative speed if train P and Q running in same direction

$$= \frac{80}{3} - 20$$

$$= \frac{20}{3} \text{ m/s}$$

$$\text{Required time} = \frac{(175 + 225) \times 3}{20} = 60 \text{ sec}$$

59. (2)

Let C.P. of LED =  $100x$  Rs.

M.P of LED =  $160x$  Rs.

$$\text{First discount} = 160x \times \frac{1}{8} = 20x \text{ Rs.}$$

Second and third discount

$$(160x - 20x) \times \frac{(100 - d)}{100} \times \frac{(100 - 25)}{100} = 84x$$

$$140x \times \frac{100 - d}{100} \times \frac{3}{4} = 84x$$

$$21(100 - d) = 84 \times 20$$

$$21d = 2100 - 1680$$

$$d = \frac{420}{21}$$

$$d = 20\%$$

60. (4)

Let present age of Q be x

Present Age of P =  $x + 3$

Present Age of R =  $x - 3$

ATQ—

$$\frac{(x + 3 + x + x - 3) - 4 \times 3}{3} = 33$$

$$x - 4 = 33$$

$$x = 37 \text{ years}$$

age of P after 1 year =  $37 + 3 + 1 = 41$  years

61. (2)

$$\frac{14}{99} \times (\sqrt[3]{729} \times \sqrt{121}) + (15)^2 = ?$$

$$14 + 225 = ?$$

$$? = 239$$

62. (5)

$$\frac{753 + ?}{18} + \frac{21}{100} \times 4200 + \sqrt{841} = (31)^2$$

$$\frac{753 + ?}{18} + 882 + 29 = 961$$

$$\frac{753 + ?}{18} = 961 - 911$$

$$? = 900 - 753$$

$$? = 147$$

63. (2)

$$(377 + 539 - 40) + \frac{?}{100} \times 800 = (30)^2$$

$$876 + 8? = 900$$

$$? = \frac{(900 - 876)}{8}$$

$$? = 3$$

64. (4)

$$\frac{37}{100} \times 6600 + 169 - ? = (50)^2$$

$$2442 + 169 - ? = 2500$$

$$? = 2611 - 2500$$

$$? = 111$$

65. (5)

$$18 \times 25 - \frac{?}{15} + \frac{15}{100} \times 300 = (22)^2$$

$$450 - \frac{?}{15} + 45 = 484$$

$$\frac{?}{15} = 495 - 484$$

$$? = 165$$

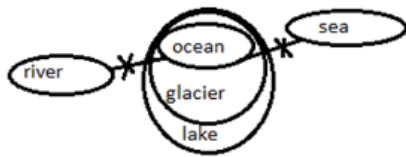
66. (5)



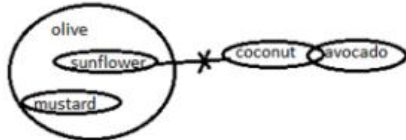
Grand Test – SPP 180760



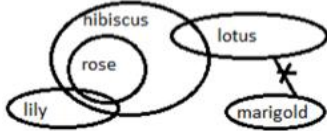
67. (1)



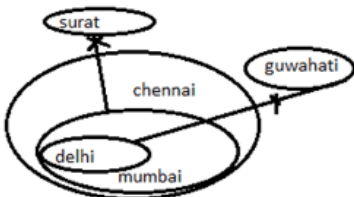
68. (1)



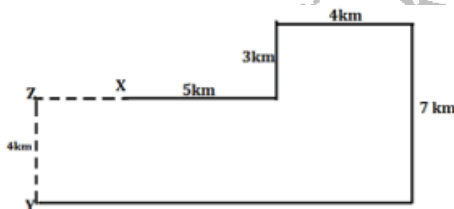
69. (4)



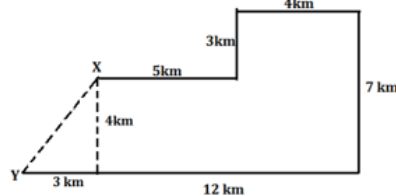
70. (5)



71. (4)



72. (3)

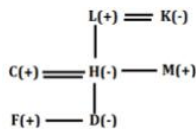


$XY = \sqrt{3^2 + 4^2} = 5\text{km}$

73. (4)

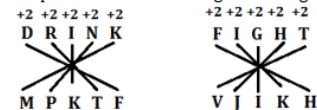
The code of PAIN will be 6\*2&.

74. (1)

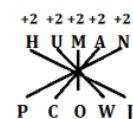


75. (4)

The pattern followed in the given coding is---



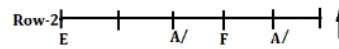
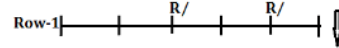
So, the code of HUMAN will be---



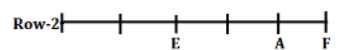
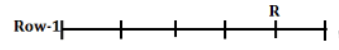
76-80.

F sits third to the right of E and one of them sits at an extreme end. A is an immediate neighbour of F and faces R. From this there can be two possible cases-

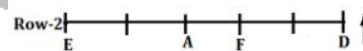
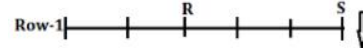
Case-1:



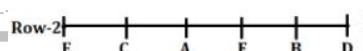
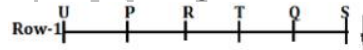
Case-2:



Only two persons sit between R and S. S faces D, who is not an immediate neighbour of E. So, from this case-2 has been eliminated and also in case-1 A sits to the immediate left of F and faces R.



Only one person sits between P and T. P does not face F. So, T faces F. The immediate neighbour of U faces C. Then it is clear that U is sitting at extreme right end of row-1. Rest Q sits to the immediate right of S and faces B. So, the final arrangement is-----



76. (3)

78. (5)

81-85.

77. (2)

79. (4)

80. (3)

A is going on 18 of a month which has 30 days. Three persons are going in between A and I. I is going after A. From this it is clear that A is going on 18 April and I is going on 18 in the month of June. Only one person is going before D means D is going on 18 January.

Months (Days)	9th	18th
January (31)		D
March (31)		
April (30)		A
May (31)		
June (30)		I

Both C and G are going in the same month but both of them are going after A. So, it is clear that both C and G are going in the month of May. B is going on an odd date of a month and only two persons are going in between B & E. So, B is going on 9th January and E is going on 18th March.

Months (Days)	9th	18th
January (31)	B	D
March (31)		E
April (30)		A
May (31)	C/G	C/G
June (30)		I

More than one person is going in between E and F. So, only place left for F is that F is going on 9th June Only one person is going in between C and J. So, it is clear that C is going on 9th May and G is going on 18th May. Further J is going on 9th April. And rest H is going on 9th March.

