Grand Test - SPP 170205

## **RACE**

## **SBI PO Preliminary** Grand Test –SPP-170205 HINTS & SOLUTIONS

- (4) All of the above
   (5) Non mentioned in the passage
- 3. (3) Only (A) and (B)
- 4. (3) Only A and B
- 5. (1) To explain that consumerist societies have their own draw-backs which are overlooked by those who are blinded by its material glare
- 6. (2) People should visit the sermons more often since this is the only way to achieve peace and happiness
- 7.(5) The meaning of the word Shrewdly (Adverb) as used in the passage is : understanding and making judgements about a situation cleverly; astutely; showing good judgement. Hence, the words shrewdly and astutely are synonymous. 8. (3) The meaning of the word Elusive (Adjective) as used in the passage is : difficult to find, define or achieve; unachievable Look at the sentence: A solution to the problem of toxic waste is proving elusive. Hence, the words elusiveand unachievableare synonymous. 9.(4) The meaning of the word Dejected (Adjective) as used in the passage is : unhappy and disappointed; despondent. Look at the sentence : He looked so dejected when he lost the game. word Elated Of the given alternatives, the (Adjective)means : very happy and excited because of something good that has happened. Look at the sentence:

They were elated at the result.

Hence, the words dejected and elated are antonymous.

10. (5) The meaning of the word Momentary (Adjective) as used in the passage is : lasting for a very short time; brief.

Of the given alternatives, the word Perpetual (Adjective)means : continuing for a long period of time without interruption; continuous. Look at the sentence:

We lived for years in a perpetual state of fear. Hence, the words momentary and perpetual are

antonymous.

11. (3) Period of time is evident Hence, Present Perfect Continuous i.e. has been arguably ..... should be used.
12. (3) Look at the structure:

must + be + Verb.

- 13. (5)
- 14. (4) Infinitive = to +  $V_1$ Hence, is set to double ..... should be used here.
- 15. (4) Here, has the potential (Noun) ......should be used. Look at the sentences: First we need to identify actual and potential (Adjective) problems.

The European market place offers excellent potential for increasing sales.

- 16. (1) depositors
- 17. (4) borrow 18. (4) banking
- 19. (2) simpler
- 20. (2) simple 20. (2) gap
- 20. (2) ga 21. (2) B
- 22. (1) E
- 23. (4) D
- 24.(3) C
- 25. (1) A
- 26. (4) The event shows past time. Hence, when he reached the office/when he had reached the office .... should be used.
- 27. (2) The event shows past time. Hence, Past Perfect should be used. Hence, had brought a much unnerving gloom ..... should be used.
- 28. (3) The word threat should be followed by 'to' here. Hence, serious threats to residents .... should be used.
- 29. (3) The form of an Infinitive is : to +  $V_1$ . Hence, to regulate the process of .... should be used.
- Here, use of double superlatives is superfluous. Hence, India's fastest growing bird sanctuary .... should be used.
- 31.(3) The data in statement I alone or in statement II alone are sufficient. We can find the ratio of profit sharing as ratio of amounts of investment can be determined
- 32. (5) Let the number be 10x + y. From statement I,
  - x + y = 6
  - Many such combinations are possible.
  - From statement II x= 2y

Taking both the statement together,

- $\therefore$  3y = 6  $\Rightarrow$  y = 2 and hence x= 4
- ∴Number = 42
- 33. (1) From statement I alone, Principal = Rs. x. R = ?, S.I. = x T = 10 years

$$\therefore R = \frac{S.I \times 100}{P.1 \times 100} = \frac{x \times 100}{100} = 10\%$$

$$\frac{1}{\text{Prinicipal} \times \text{Time}} = \frac{1}{\text{x} \times 10}$$

34. (4) Statement I I gives no conclusion. From statement II,

$$(A + B)$$
's 1 day's work =  $\frac{1}{12}$ 

A's 1 day's work is not known.

- 35. (5) From both the statements,
  - $\frac{5x+4}{2} = \frac{17}{2}$
  - $\overline{x+4}$   $\overline{5}$
  - $\implies 25x + 20 = 17x + 68$
  - $\Rightarrow$  8x = 48  $\Rightarrow$  x = 8
  - Mother's present age =  $5 \times 8 = 40$  years

## Grand Test - SPP 170205 36. (5) Total number of marbles in the urn = 4 + 5 + 2 + 3 = 14 Total possible outcomes = selection of 2 marbles out of 14 marbles = ${}^{14}C_2 = \frac{14 \times 13}{1 \times 2} = 91$ Favourable number of cases = ${}^{2}C_{2} + {}^{2}C_{1} \times {}^{12}C_{2}$ $= 1 + 2 \times 12 = 25$ $\therefore$ Required probability = $\frac{25}{01}$ Total possible outcomes = ${}^{14}C_3 = \frac{14 \times 13 \times 12}{1 \times 2 \times 3} = 364$ 37. (2) When no marble is yellow, Favourable number of cases $= {}^{11}C_3 = \frac{11 \times 10 \times 9}{1 \times 2 \times 3} = 165$ $\therefore$ Probability that no marble is yellow = $\frac{165}{364}$ : Required probability = $1 - \frac{165}{364} = \frac{364 - 165}{364} = \frac{199}{364}$ ЭF Total possible outcomes = ${}^{14}C_8$ 38. (3) $= {}^{14}C_6[:: {}^{n}C_r = {}^{n}C_{n-r}]$ $= \frac{14 \times 13 \times 12 \times 11 \times 10 \times 9}{1 \times 2 \times 3 \times 4 \times 5 \times 6} = 3003$ Favourable number of cases $= {}^{4}C_{2} \times {}^{5}C_{2} \times {}^{2}C_{2}$ $= {}^{4}C_{2} \times {}^{5}C_{2} \times {}^{2}C_{2} \times {}^{3}C_{2} = 6 \times 10 \times 1 \times 3 = 180$ $\therefore$ Required probability $=\frac{180}{3003}=\frac{60}{1001}$ Total possible outcomes = ${}^{14}C_3 = \frac{14 \times 13 \times 12}{1 \times 2 \times 3} = 364$ 39. (5) No ball is green. : Total favourable outcomes = selection of 3 marble out 5 blue, 2 red and 3 yellow marbles $^{10}C_3 = \frac{10 \times 9 \times 8}{1 \times 2 \times 3} = 120$ $\therefore$ Required probability = $\frac{120}{364} = \frac{30}{91}$ 40. (1) Total possible outcomes $= {}^{14}C_4 = \frac{14 \times 13 \times 12 \times 11}{1 \times 2 \times 3 \times 4} = 1001$ Favourable outcomes = ${}^{5}C_{2} \times {}^{2}C_{2} = 10 \times 1 = 10$ $\therefore$ Required probability = $\frac{10}{1001}$ Total number of employees in administration department 41. (1) $=\frac{2500\times12}{100}=300$ Number of male employees = $\frac{7}{12} \times 300 = 175$ Total number of employees in printing department $=\frac{2500\times 6}{100}=150$ Number of male employees = $\frac{2}{3} \times 150 = 100$ ∴ Required ratio = 175 : 100 = 7 : 4

(I) RACE 42.(3) Required difference =  $2500 \times (18 - 14)\%$  $=\frac{2500\times4}{100}=100$ Total number of employees in HR department 43.(4)  $=\frac{2500\times16}{100}=400$  $\therefore$  Number of males =  $\frac{5}{8} \times 400 = 250$ and number of females= 400- 250 = 150 Number of employees in marketing department  $=\frac{2500\times15}{100}=375$ Number of males =  $\frac{7}{15} \times 375 = 175$ Number of females= 375 - 175 = 200 ·· Required ratio= (250 + 175) : (150 + 200) = 425: 350 = 17 : 14 150 44.(4) 45. (2) Total number of employees in logistics department  $2500 \times 11 = 275$ Number of males =  $\frac{6}{11} \times 275 = 150$ Number of females= 275 - 150 = 125 ·· Required difference= 150 - 125 = 25 46. (5) Number of men visiting super-market D  $\frac{55500 \times 41}{100} = 22755$ Total number of people visiting all the super-markets together = 34560 + 65900 + 45640 + 55500 + 42350 + 59650 = 303600  $\therefore$  Required percentage =  $\frac{22755}{303600} \times 100 = 7.5$ 47.(4) Number of children visiting super-market C  $45640 \times 20 = 9128$ 100 Number of children visiting super-market F  $=\frac{59650\times14}{100}=8351$  $\therefore$  Required percentage =  $\frac{9128}{8351} \times 100 = 109.30$ Total number of children visiting super-markets B and D 48. (3) together =  $\frac{65900 \times 20}{100} + \frac{55500 \times 33}{100}$ = 13180 + 18315 = 31495 49.(1) Total number of women  $= \frac{34560\times55}{100} + \frac{65900\times43}{100} + \frac{45640\times45}{100} + \frac{55500\times26}{100}$  $+\frac{42350\times70}{100}+\frac{59650\times62}{100}$ = 19008 + 28337 + 20538 + 14430 + 29645 + 36983 = 148941  $\therefore$  Required average  $=\frac{148941}{6}=24823.5$ 

A DACE Grand Test - SPP 170205 50. (5) Required ratio = 19008 : 20538 = 1056 : 1141  $\Rightarrow$  x = 3 or  $\frac{7}{2}$ The pattern of the number series is: 51. (1)  $32 + 1^2 = 32 + 1 = 33 \neq 34$ II. 2  $y^2$  - 9y + 10 = 0  $33 + 2^2 = 33 + 4 = 37$  $\Rightarrow$  2 y<sup>2</sup> - 4y - 5y + 10 = 0  $\Rightarrow$  2y (y - 2) - 5 (y - 2) = 0  $37 + 3^2 = 37 + 9 = 46$ ⇒ (y - 2) (2y - 5) = 0  $46 + 4^2 = 46 + 16 = 62$  $\Rightarrow$  y = 2 or  $\frac{5}{2}$  $62 + 5^2 = 62 + 25 = 87$ The pattern of the number series is: Clearly, x > y52. (3)  $7 + 1 \times 11 = 7 + 11 = 18$  $I. 3 x^2 - 14x + 15 = 0$ 58. (3)  $18 + 3 \times 11 = 18 + 33 = 51 \neq 40$  $\Rightarrow$  3 x<sup>2</sup> - 9x - 5x + 15 = 0  $\Rightarrow$  3x (x - 3) - 5 (x - 3) = 0  $51 + 5 \times 11 = 51 + 55 = 106$  $\Rightarrow$  (3x - 5) (x - 3) = 0 106 + 7 × 11 = 106 + 77 = 183  $\frac{5}{3}$  or 3 183 + 9 × 11 = 183 + 99 = 282 ⇒ x = 53. (4) The pattern of the number series is: 850 - 1 × 7 = 843 II.  $2y^2 - 9y + 9 = 0$ 843 - 2 × 7 = 829  $\Rightarrow 2y^2 - 6y - 3y + 9 = 0$  $829 - 3 \times 7 = 808$ ⇒2y (y - 3) - 3 (y - 3) = 0 808 - 4 × 7 = 780 ≠ 788 > (2y - 3) (y - 3) = 0 780 - 5 × 7 = 745  $\Rightarrow$  y =  $\frac{3}{2}$  or 3  $745 - 6 \times 7 = 703$ The pattern of the number series is: 54. (5) Clearly,  $x \ge y$ 33 + 288 = 321 59. (2)  $1.3 x^2 - 10x + 8 = 0$ 321 + 144 = 465465 + 72 = 537  $\Rightarrow$  3 x<sup>2</sup> - 6x - 4x + 8 = 0 537 + 36 = 573⇒3x (x - 2) - 4 (x - 2) = 0 573 + 18 = 591 ≠ 590  $\Rightarrow$  (3x-4) (x-2) = 0  $\Rightarrow$  x =  $\frac{4}{3}$  or 2 591 + 9 = 60055. (1) The pattern of the number series is:  $37 + 1 \times 5 = 42 \neq 47$ II.2  $y^2 - 11y + 15 = 0$ >HINK  $42 + 2 \times 5 = 52$  $\Rightarrow$  2 y<sup>2</sup> - 6y - 5y + 15 = 0 52 + 3 × 5 = 67 ⇒ 2y (y - 3) - 5 (y - 3) = 0  $67 + 4 \times 5 = 87$ ⇒ (y - 3) (2y - 5) = 0 87 + 5 × 5 = 112  $\Rightarrow$  y = 3 or  $\frac{5}{-}$  $112 + 6 \times 5 = 142$ 56. (3) I. 3  $x^2$  + 7x + 2 = 0 Clearly, y > x  $\Rightarrow$  3 x<sup>2</sup> + 6x + x + 2 = 0  $I. x^2 = 25$ 60.(5)  $\Rightarrow$  3x (x + 2) + 1 (x + 2) = 0  $\Rightarrow x = \sqrt{25} = \pm 5$  $\Rightarrow$  (3x + 1) (x + 2) = 0 II.  $y^2 - 6y + 9 = 0$  $\Rightarrow$  x = - $\frac{1}{3}$  or -2  $\Rightarrow$   $(x-3)^2 = 0 \Rightarrow x-3=0$  $\Rightarrow x = 3$ II.  $y^2 + 5y + 6 = 0$ The smallest odd number = x 61. (5)  $\Rightarrow$  y<sup>2</sup> + 3y + 2y + 6 = 0  $\therefore$  The smallest even number = x + 11  $\Rightarrow$  y (y + 3) + 2 (y + 3) = 0  $\therefore$  x + x + 2 + x + 4 + x + 11 + x + 13 + x + 15 = 231  $\Rightarrow$  (y + 2) (y + 3) = 0  $\Rightarrow$  6 x + 45 = 231  $\Rightarrow$  y = -2 or - 3 ⇒6 x = 231 - 45 = 186 Clearly,  $x \ge y$  $\therefore x = \frac{186}{6} = 31$  $I. 2 x^{2} - 13x + 21 = 0$ 57. (1)  $\Rightarrow$  2 x<sup>2</sup> - 7x - 6x + 21 = 0  $\therefore$  Required sum  $\Rightarrow$  x (2x - 7) - 3 (2x - 7) = 0 = x + 4 + x + 15 $\Rightarrow$  (2x - 7) (x - 3) = 0  $= 2x + 19 = 2 \times 31 + 19$ = 62 + 19 = 81

## I RACE Grand Test - SPP 170205 62. (1) Second number 78.(3) Chartered Accountant E is sitting just opposite to Scientist H. $=\frac{50\times12}{100}=6$ Columnist M is sitting just opposite of Doctor F. Lawyer J is not sitting just opposite to Engineer L. $\therefore$ First number = $\frac{6^3 \times 3}{2} = 324$ Financial Analyst G is sitting just opposite of Engineer L. Lawyer J is sitting just opposite of Professor K. $\therefore$ Required sum = 324 + 6 = 330 79.(2) Engineer L is second to the right of Scientist H. 63. (3) Total CP 80. (1) Lawyer J is second to the left of the Doctor F. = Rs. (12000 + 10000) = Rs. 22000 Chartered Accountant E is an immediate neighbour of Total S.P. = $\left(\frac{12000 \times 108}{100} + \frac{10000 \times 88}{100}\right)$ Lawyer J and Columnist M. Scientist H sits exactly between Doctor F and Professor K. Only three persons - E, J, G or L, K, H - sit between = Rs. (12960 + 8800) = Rs. 21760 Doctor F and Columnist M. ·· Loss = Rs. (22000 - 21760) = Rs. 240 81. (5) Age of the fourth boy = $(26 \times 7 - 3 \times 19 - 3 \times 32)$ years 64. (2) = (182 - 57 - 96) years = 29 years Bottles 65.(4) Data are inadequate. 66. (4) Mustard is an oilseed (seed). Similarly, carrot is a Cups Jugs Plates Table modified root. Meaningful Word = REST 67.(2) Except Plate, all others are used for storing water 68. (4) (liquid). ✓ either I or III II. × IV. × Ш. Except Mercury, all others are solid at normal room 69.(2) tempera-ture. Mercury is liquid at normal room Either I (or) III follow. temperature. 82. (5) Except the number 217, all others are Prime Numbers. 70. (1) (71 – 75): Mats Pots good time to buy ni Chairs Handles Buses invest Emoney and 3 (time {mr} only work E and money3 ✓ either I or III ||. ✓ IV 🗸 III. kw bo rd fp good stuff only buy Either I (or) III, II and IV follows. 71. (3) to $\Rightarrow$ ni 83.(1) 72. (1) buy good $\Rightarrow$ kw bo 73.(4) only $\Rightarrow$ fp Tigers time ⇒sy Horses and money $\Rightarrow$ to mr Monkey Lions 74. (2) stuff $\Rightarrow$ rd Birds 75. (5) invest ⇒ge time $\Rightarrow$ sy to $\Rightarrow$ nj 1. ✓ ||. × Ⅲ. ✓ work $\Rightarrow$ ux IV × (76 – 80): Only I and III follows. Doctor 84.(3) Scientist Financial Houses Roads G Analyst Walls Benches Jungles Professor K J Lawyer E Chartered Ⅲ. ✓ |. × ||. × Engineer Accountant M ~ IV. Columnist Only III and IV follows. Financial Analyst G is sitting second to the right of E. 76. (2) 85.(1) 77. (4) K is the professor.

