

Grand Test – SPP 180537



42. (3) Number of graduate students who appeared in CS in the year 2010

$$= \frac{76 \times 50}{100} = 38 \text{ thousand}$$

Number of graduate students who appeared in ES in

$$2010 = \frac{40 \times 60}{100} = 24 \text{ thousand}$$

∴ Required ratio = 24 : 38 = 12 : 19

43. (5) Graduates who appeared in the year 2008 :

$$\text{E.S.} \Rightarrow 36 \times \frac{1}{2} = 18 \text{ thousand}$$

$$\text{C.S.} \Rightarrow \frac{60 \times 60}{100} = 36 \text{ thousand}$$

Required percentage

$$= \frac{18}{36} \times 100 = 50\%$$

44. (3) Required difference

$$= \frac{1}{2} [(58 + 60) - (36 + 301)] \text{ thousand}$$

$$= \frac{1}{2} (118 - 66) \text{ thousand}$$

$$= \frac{52}{2} \text{ thousand} = 26000$$

45. (1) Number of graduates who appeared in both the exams in the year 2009

$$= \left(\frac{70 \times 65}{100} + \frac{52 \times 40}{100} \right) \text{ thousand}$$

$$= (45.5 + 20.8) \text{ thousand}$$

$$= 66.3 \text{ thousand} = 66300$$

(46 – 50)

The given arrangement will be explained by the following table, where x, x1, and x2 are the number of cookies in the box in the first, second and third round, respectively

	Balance before	Sweta	Swarna	Sneha	Soumya	Balance after
Last round	12	3	3	3	3	0
III round	$X_2 - 3x_2/4 = 12$ $\therefore X_2 = 48$	12	12	12	0	12
II round	$X_1 - 2x_1/4 = 48$ $\therefore X_1 = 96$	24	24	0	0	48
I round	$X - x/4 = 96$ $\therefore X = 128$	32	0	0	0	96
Total		71	39	15	3	128

From the table, it is clear that Sneha ate 15 cookies.

46. (3) 15

47. (4) From the table, it is clear that Sweta ate 71 cookies.

48. (1) From the table, it is clear that total number of cookies were 128 and thus, uncle Prem gave 128 cookies to Sweta.

49. (3) Number of cookies got by Swarna = 39
Number of cookies got by Soumya = 3
∴ Required ratio = 39:3 = 13 : 1

50. (1) **As, Sweta got 71 cookies.**

$$\text{Required percentage} = \frac{71}{128} \times 100 = 55\%$$

51. (4) Let A and B together complete the work in 'x' days.

'A' alone can complete the work in (x + 4) days.

'B' alone can complete the work in (x + 16) days.

$$\therefore \frac{1}{x+4} + \frac{1}{x+16} = \frac{1}{x}$$

$$\Rightarrow \frac{2x+20}{x^2+20x+64} = \frac{1}{x}$$

$$\Rightarrow 2x^2+20x = x^2+20x+64$$

$$\Rightarrow x^2 = 64 \Rightarrow x = 8.$$

52. (3)

Gold Copper

$$\text{Alloy A} \quad \frac{7}{9} \quad \frac{2}{9}$$

$$\text{Alloy B} \quad \frac{7}{18} \quad \frac{11}{18}$$

Since, alloys A and B are melted in the ratio 1 : 1 to make the alloy, therefore in the alloy C, the ratio of gold and copper

$$\left(\frac{7}{9} \times \frac{1}{2} + \frac{7}{18} \times \frac{1}{2} \right) : \left(\frac{2}{9} \times \frac{1}{2} + \frac{11}{18} \times \frac{1}{2} \right)$$

$$= \frac{21}{18} : \frac{15}{18} = 7 : 5$$

53. (4) Time taken to cover $\frac{1}{5}$ of the distance

$$= \frac{1}{5} \times \frac{1}{8} = \frac{1}{40}$$

Time taken to cover $\frac{1}{10}$ of the distance

$$= \frac{1}{10} \times \frac{1}{25} = \frac{1}{250}$$

Time taken to cover rest of the distance

$$= \left\{ 1 - \left(\frac{1}{5} + \frac{1}{10} \right) \right\} \times \frac{1}{20} = \frac{7}{10} \times \frac{1}{20} = \frac{7}{200}$$

Therefore, total time taken

$$= \frac{1}{40} + \frac{1}{250} + \frac{7}{200} = \frac{25+4+35}{1000} = \frac{64}{1000}$$

Thus, average speed

$$= \frac{\text{Total distance covered}}{\text{Total time taken}} = \frac{1}{\frac{64}{1000}}$$

$$= \frac{1000}{64} = 15.625 \text{ km/h}$$

54. (4) CP of two horses = Rs.40000 + Rs.40000 = Rs.80000

SP of one horse = 115% of 40000 = 46000

Let the second horse was sold at a loss of x%.

$$\text{Then, SP of second horse} = (100 - x)\% \text{ of } 40000 = 40000 - 400x$$

$$\text{Total SP} = 46000 + 40000 - 400x = 86000 - 400x$$

Now, using CP – SP = loss, we have

$$80000 - (86000 - 400x) = 3600$$

$$\Rightarrow x = 24$$

Thus, SP of second horse

$$= (100 - 24)\% \text{ of } 40000 = 76\% \text{ of } 40000 = \text{Rs. } 30400.$$

55. (2)

Let the share of elder and younger sons be Rs. X and Rs. (120000 – x) respectively.

$$x + \frac{x \times 5 \times 4}{100} = (120000 - x) + \frac{(120000 - x) \times 5 \times 6}{100}$$

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$$\Rightarrow x + \frac{x}{5} = (120000 - x) + \frac{(120000 - x) \times 3}{10}$$

$$\Rightarrow \frac{11x}{5} \times 10 = 120000 \times 10 + 360000 - 3x$$

$$\Rightarrow 22x = 120000 + 360000 - 3x$$

$$\Rightarrow x = \text{Rs. } 62400$$

Thus younger son's share = Rs. 57600

56. (1) $x = 7, y = 2$. Therefore $x > y$.

57. (3) $x = 2, \frac{11}{9}, y = 3, 4; \therefore x < y$

58. (4) $x = 4, \frac{-8}{3}, y = 4, \frac{9}{2}; \therefore x \leq y$

59. (1) $x = 7, \frac{-2}{3}, y = \frac{-3}{2}, -1; \therefore x > y$

60. (5) $x = -7, y = 0, -9$

\therefore No relation between x and y .

61. (3) $4797 \times 26 \div 39 + ? = 2^5 \times 5^3$

$$\Rightarrow \frac{4797 \times 26}{39} + ? = 32 + 125$$

$$\Rightarrow 3198 + ? = 4000 \Rightarrow ? = 4000 - 3198 = 802$$

62. (4) $? = 3194 \div 8 + 75\% \text{ of } 800 = \frac{3194}{8} + \frac{800 \times 75}{100}$
 $= 400 + 600 = 1000$

63. (1) $? = \frac{2}{9} \times \frac{3}{16} \times \frac{8}{15} \times 1275 = 28$

64. (2) $? = (17)^2 \times (2)^3 + (9)^3 \times (5)^2$
 $= 289 \times 8 + 729 \times 25 = 2312 + 18225 = 20537$

65. (3) $(28)^2 - (22)^2 + (2346 + 154) \div ? = 350$

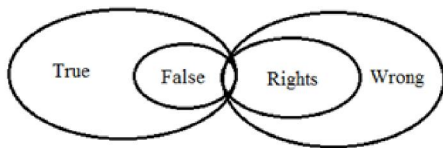
$$\Rightarrow (28 + 22)(28 - 22) + \frac{2500}{?} = 350$$

$$\Rightarrow 50 \times 6 + \frac{2500}{?} = 350$$

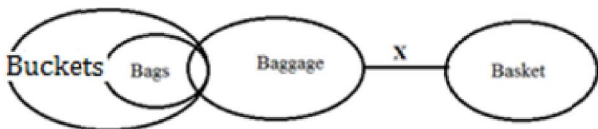
$$\Rightarrow \frac{2500}{?} = 350 - 300 = 50$$

$$\Rightarrow ? = \frac{2500}{50} = 50$$

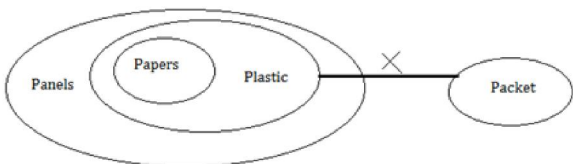
66. (5)



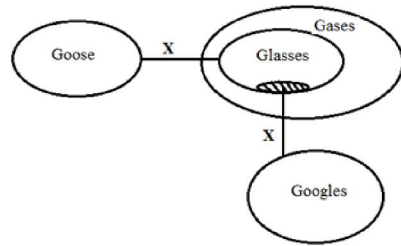
67. (2)



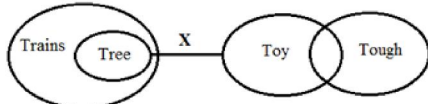
68. (1)



69. (2)



70. (3)



71. (3)

Statement 1 :

Let the below of Suresh is 'x',

$$\text{Above of Suresh} = \frac{1}{3}(x) - 1$$

$$\therefore x + \frac{1}{3}(x) - 1 + 1 = 40 \Rightarrow x = 30$$

Therefore Suresh's rank from top = 10th.

Statement 2 :

Dinesh Suresh Mahesh
 4 ----- 10 ----- 16

From both statements we get the answer

V W S T P Q

72. (5)

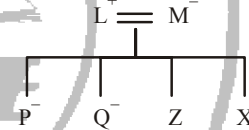
73. (4)

74. (4)

From both statement we don't get answer.

Here Rishu gender not mentioned, so we don't get the answer even both statements.

75. (4)



Here there is no gender of 'Z'. So, we don't get the answer.

76-80.

O	Punjab	Designing	Lucknow
L	Maharashtra	Sales	Chennai
M	Uttar Pradesh	Marketing	Bhopal
P	Haryana	IT	Gurgaon
Q	Assam	Finance	Banaras
N	Himachal	HR	Patna
K	Kerala	Law	Pune

76. (4)

78. (2)

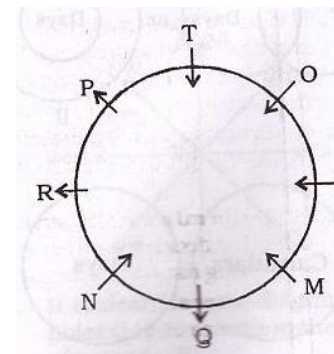
81-85:

77. (3)

79. (4)

80. (1)

81. (2)



S faces the centre. T is sitting second to the right of S. T is sitting just opposite to Q.

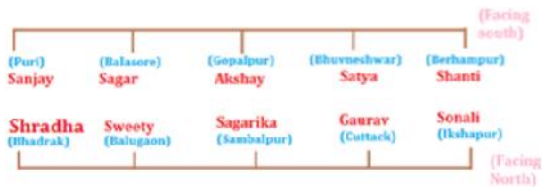
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There are only three persons between T and Q.

T and M face the same direction, i.e, towards the centre.

82. (1) Three persons - P, Q and R - face outside, i.e., opposite to the centre.
 83. (4) Except Q, all others face towards the centre.
 84. (3) M sits exactly between S and Q when counted from the left of S.
 85. (5) R faces outside, i.e., opposite to the centre. M is sitting third to the left of R.
 (86 – 90)



86. (2) Bhuvaneswar
 87. (4) Sagarika
 88. (4) Cuttack
 89. (3) Ikshapur
 90. (4) The person who is from Bhadrak sits opposite the person from Berhampur.

91 - 95: There are six numbers and six words in the input. The three numbers are placed in the beginning and the remaining three numbers are placed in the last. The numbers are rearranged in ascending order. The six words are rearranged in alphabetical order in the middle.

Input : 67 hot sun 19 best 83 ice 49 ace 77 cut 37

Step I : 19 67 hot sun best ice 49 ace 77 cut 37 83

Step II : 19 37 67 hot sun best ice 49 ace cut 77 83

Step III : 19 37 49 hot sun best ice ace cut 67 77 83

Step IV : 19 37 49 ace hot sun best ice cut 67 77 83

Step V : 19 37 49 ace best hot sun ice cut 67 77 83

Step VI : 19 37 49 ace best cut hot sun ice 67 77 83

Step VII: 19 37 49 ace best cut hot ice sun 67 77 83

91. (4) Seven steps are needed to complete the arrangement.
 92. (3) It is Step V.
 93. (4) Option (4) is Step I.
 94. (2) Option (2) is the final arrangement.
 95. (1) In Step IV 'sun would be seventh from the right.
 96. (3) 97. (3)
 98. (5) 99. (1) 100. (1)