SECTION-WISE QUANT SET FOR SIDBI EXAM SOLUTIONS

QUANT SOLUTION

51. (3); **I.** 3 men alone can do the work in $\frac{5\times4}{3} = \frac{20}{3}$ days.
Now, with the help of the question's information, one woman alone can do the work in
$= \frac{1}{4} - \frac{3}{20} = \frac{1}{10}$ ie, 10 days
∴two women together can do the same work in 5 days.
II. 4 (3M+W) = 5(2M+W) ⇒ W = 2M
One the relationship between M and W is known, the required number of days can bedetermined. Hence, either statement I alone or II alone is sufficient to answer the question.

52. (5); Let the bigger and the smaller no. be B and S respectively. Then
I. $\frac{3B}{5}$ = S **II.** $\frac{B}{2} = S - 5$
Or, $S - \frac{B}{2} = 5$
Combining both the above equations, we get B = 50 and S = 30
Hence, both the statements together are required for answering the questions.

53. (1); **I.** Ratio of interest = $\frac{100}{10\times2} = 5\%$
From statement II, we do not know the borrowed amount, so the rate of interest can't b determined. Therefore, only statement I alone is sufficient to answer the question.

54. (5); Combing both the statements together, marked Price of the article =2500× $\frac{128}{100} \times \frac{100}{80} = rs.4000$

55. (5); If we combine both the statement together, the speed with stoppage can be found out and then the person stops how long per hour can be determined. In this case the person stops for 15 min in an hour.

56. (3); 26+27+16+33+27.6+42.5=172.1

57. (2); $\frac{332.7}{6} = 55.45$

58. (5); $\frac{34}{20} \times 100 = 170$

59. (4); $\frac{40-24}{40} \times 100 = 40\%$

60. (1);

61. (2); P=4,3 ; q=2,1 ; p>q

62. (1); P=$\frac{1}{3}, \frac{1}{4}$; q = $\frac{2}{3}, \frac{1}{2}$; p<q

63. (5); p=$-7, -5$; q=$-7, -4$; No relation.

64. (4); p= 5, 3 ; q= = 3,2 ; q≤p

65. (3); p =-5; q = ± 5 ; p≤q

66. (3); Let volume of cylinder = $\pi r_1 2_{h_1}$
Let volume of cone = $\frac{1}{3}\pi\, r_2 2_{h_1}$
Given $\frac{r_1}{r_2}$ = 5 : 4 and $\frac{h_1}{h_2} = \frac{4}{5}$
Req. Ratio = $\frac{Volume\ (cylinder)}{Volume\ cone}$
$= \frac{\pi r_1\, 2_{h_1}}{\frac{1}{3}\pi\, r_2\, 2_{h_2}} = 3(\frac{r_1}{r_2})^2\ (\frac{h_1}{h_2})$
$= \frac{3\times5\times5}{4\times4} \times \frac{4}{5} = \frac{15}{4} = 15:4$

67. (1); P= $\frac{{}^3C_1 \times {}^5C_1}{{}^{12}C_2} = \frac{5}{22}$

68. (4); Work done by A in 1 day = $\frac{1}{15}$
Work done by B in 1 day = $\frac{1}{16}$
1 day work of A and B = $\frac{1}{15} + \frac{1}{16}$
6 day work of A and B = $\frac{6}{15} + \frac{6}{16} = \frac{31}{40}$
Work remaining = $1 - \frac{31}{40} = \frac{9}{40}$
Time taken by A done
Remaining work = $\frac{(\frac{9}{40})}{(\frac{1}{15})} = \frac{27}{8} = 3\frac{3}{8}$
Total days = $6+3\frac{3}{8} = 9\frac{3}{8}$

69. (3); Let the distance = D
Let the speed of current = x
Time (upstream) = $\frac{D}{9.6-x}$
Time (downstream) = $\frac{D}{9.6+x}$
According to question
2×Time (doconstream) = Time (upstream)
$2\times \frac{D}{(9.6+x)} = \frac{D}{9.6-x}$
$19.2-2x = 9.6+x$
3x = 9.6
x = 3.2 = $3\frac{1}{5}$ km/hr

70. (3); Let the speed of bike = x
Moving in same direction, so relative speed = (x−3) km/hr.
With this relative speed, the bike is seen for 4 min (1/15) up to a distance of 100m (0.1 km), So,
$x-3 = \frac{0.1}{\frac{1}{15}}$
$x = 1.5+3 = 4.5$

71. (4); Initial speed 60 km/hr.
Means it travel 60 km in 1 hr, let x be half time,
Now it will take (1+x) hr to travel 60 km with speed of 50 km/hr
$\frac{60}{(1+x)} = 50$
5x=1

$x = \frac{1}{5}$ hr = 12 min halt per hour.

72. (2); Number of females = $\frac{2}{5} \times 100 = 40$

Males = 60

Use allegation

40		60
2	:	3
7x		5x

29

29-5x 7x-29

$$\frac{7x - 29}{29 - 5x} = \frac{3}{2}$$

x = 5

average age of females = 7x = 7× $5 = 35$

73. (4); Quantity of milk = $\frac{4}{5} \times 75 = 60$

Water= 15

Let amount of water added.

$$\frac{60}{15 + x} = \frac{3}{1}$$

60 = 45 +3x

x = 5

74. (1); x+y=115

$x + \frac{y}{2} = 69$

y = 92

75. (1); 5x : 6x, Let B investment was used for y months

8× 5x : 6x × y = 5 : 9

$\frac{40x}{6xy} = \frac{5}{9}$

x = 12

76. (2); 5+8+8=21

77. (2); Females = 20+12+25 = 57

Total males = 120

Difference = $120 - 57 = 63$

78. (3); Total = 15

Males = 7

Ratio = 15 : 7

79. (5); $120 - 8 = 112$

80. (1); Total females = 80

Male (all 3 cat) = 8

Req.% = $\frac{8}{80} \times 100 = 10\%$

81. (4); $\frac{1}{2} \times 30\%$ of 4200 = 630

82. (1); Number of female players who play lawn tennis

= 22% of 2000

= 440

Number of male player who play rugby = 13% of 4200−10% of 2000

= 346

Req. number = $440 - 346 = 94$

83. (3); Number of females players who play Cricket = 40% of 2000

= 800

Number of male player who play Hockey = 10% of 4200−15% of 2000

= $420 - 300 = 120$

Ratio = 800 : 120

= 20 : 3

84. (2); Total player who play football cricket and lawn tennis = (25+17+35)% of 4200

= 77% of 4200 3234

Total female player who play football, cricket and lawn tennis = (22+13+40)% of 2000

= 75% of 2000

= 1500

Total male = Total Players – Female players

= 3234−1500

= 1734

85. (1); $\frac{346}{1050} \times 100 = 33\%$ (approx)

86. (1); P = 240 in Both years

87. (5); U 1998 = 160

U 2000 = 432

% increase = $\frac{432-160}{160} \times 100 = 170$

88. (1); 256+40+272=568

89. (2); Q and S

90. (1); $(576+480) - (160 + 240)$

$= 1056 - 400$

= 656

91. (3); n(S) = 52

n(E) = 2

p (E) = $\frac{2}{52} = \frac{1}{26}$

92. (3); $\frac{5_{C_3}}{15_{C_3}} = \frac{2}{91}$

93. (4); $\frac{13_{C_1} \times 13_{C_1}}{52_{C_2}} = \frac{13}{102}$

94. (2); Face card = $3 \times 4 = 12$

P = $\frac{12}{52} = \frac{3}{13}$

95. (2); $\frac{8}{14} = \frac{4}{7}$

96. (2); Series is $\div 3, \div 4, \div 3, \div 4$ … ….

97. (4); Series is +0.2,× 0.3,× 0.4

98. (1); Series is +23,+(23× 2), +(23×3), … …

99. (5); Series is $\times 3 + 1.5, \times 6 + 1.5 \times 2, \times 12 + 1.5 \times 4$, … … ..

100. (3); Series is $\times 2^2, \times 4^2, \times 6^2, +8^2$, … … ..