51. **Solutions : (c)** $\frac{7}{9}$ of Total pages = 140

Total pages = 140 × $\frac{9}{7}$ = 180 pages.

52. **Solutions : (b)** $2.4\overline{52} = \frac{2452 - 24}{990} = \frac{1214}{495}$

53. **Solutions : (a)** Here, LCM of 3, 10 and 15 = 30

Since, there are two intervals of 30 seconds within one minute $\left(\frac{60}{30} = 2\right)$.

54. **Solutions : (d)** Here, Let a = 7.32 , b = 2.53

$$\frac{7.32 \times 7.32 \times 7.32 - 2.53 \times 2.53 \times 2.53}{7.32 \times 7.32 + 7.32 \times 2.53 + 2.53 \times 2.53} = \frac{7.32^3 - 2.53^3}{(7.53)^2 + (7.32 \times 2.53) + (2.53)^2}$$

$$= \frac{a^3 - b^3}{(a)^2 + (a \times b) + (b)^2} = \frac{(a-b)\{a^2 + (a \times b) + b^2\}}{(a)^2 + (a \times b) + (b)^2} = (a - b) = 7.32. - 2.53 = 4.79$$

55. **Solutions : (c)** Puntir a 15 puntir chhuak tur leh paih a 2 paih chhuak tur number pahnih (a leh b) te chu 5 leh 3 an ni.

=> $(a + b)^2 = (5 + 3)^2 = 64$.

56. **Solutions : (d)** (7 × 23) – 3 = 158.

57. **Solutions : (a)** Here, n = 30, a = 50, b = 50 – 2 = 48.

Then, the excluded number = n (a – b) + b = 30 (50 – 48) + 48 = 108.

58. **Solutions : (a)** (2.5 × 10) + 65 = 90Kg.

59. **Solutions : (b)** Here; $7x = 434$

$x = 62$

Therefore, $8x = 8 \times 62 = 496$.

60. **Solutions : (a)** Here; 5m = 5 × 1000mm = 5000mm

Therefore, % = $\frac{300}{5000} \times 100 = 6\%$.

61. **Solutions : (d)** 20% = 30

$1\% = \frac{30}{20}$

$30\% = \frac{30}{20} \times 30 = 45$.

62. **Solutions : (b)** $\left(-20 - 5 + \frac{20 \times 5}{100}\right)\%$

= -24% (-ve sign indicates discount / decrease)

63. **Solutions : (d)** M.P. $\times \frac{75}{100} = 240$

$$\text{M.P.} = 240 \times \frac{100}{75} = \text{Rs.}320$$

64. **Solutions : (b)** 20 S.P. = 15 C.P.

$$\Rightarrow \frac{20}{15} = \frac{\text{C.P.}}{\text{S.P.}}$$

Then, Loss % $= \frac{20-15}{20} \times 100 = 25\%$.

65. **Solutions : (c)** S.P. $= 500 \times \frac{90}{100} \times \frac{110}{100} = \text{Rs.}495$

66. **Solutions : (b)** Here, P = S.I.

$$\text{Therefore, Rate} = \frac{\text{S.I} \times 100}{\text{PT}} = \frac{\text{S.I} \times 100}{\text{S.I} \times 10} = 10\%$$

67. **Solutions : (a)** $\text{P} \times \frac{120}{100} = \text{Rs. } 72000$

$$\text{P} = 72000 \times \frac{100}{120} = \text{Rs. } 60000$$

68. **Solutions : (d)** P = Rs. 10000, $\text{T} = \frac{6}{12} \times 4 = 2$, $\text{R} = \frac{12}{4} = 3\%$

$$\text{Therefore, C.I.} = \frac{6.09}{100} \times 10000 = \text{Rs.}609$$

69. **Solutions : (c)** Since, 60mins = 360º

1min = 6º

When a minute hand covers 360º (12hrs), the hour hand cover 30º. And, when it is 9:10, the minute hand covers 60º (from 12 to 2) while the hour hand will also covers 5º (from 9 o'clock). So, the total angle between them will be

⇨ 60º + (90º - 5º) = 145º.

70. **Solutions : (a)** $126\text{Km/hr} = 126 \times \frac{1000}{3600} = 35\text{m/s}.$

71. **Solutions : (d)** Zuali covers within 1hr = 5Km (Distance between them at 7 a.m.)

Relative speed = 7 – 5 = 2 Km/hr

$$\text{Therefore, Time} = \frac{\text{Distance}}{\text{Speed}} = \frac{5}{2} = 2.5 \text{ hrs} = 2 \text{ hrs. } 30 \text{ mins.}$$

Then, they will meet at (7 a.m. + 2 hrs. 30 mins) = 9 : 30 a.m.

72. **Solutions : (a)** S = 54 Km/hr = 15 m/s

$$\text{Therefore, T} = \frac{\text{Distance}}{\text{Speed}} = \frac{90}{15} = 6 \text{ secs}$$

73. **Solutions : (c)** Speak neither = 80 – (50 + 40 – 20) = 10.

74. **Solutions : (a)** The Probability that you will not pass = 1 – 0.73 = 0.27

75. **Solutions : (d)** B alone can finished it in = $\frac{6 \times 2}{6-2}$ = 3 days

76. **Solutions : (d)** 'MIZORAM' is 7 letters but one letter M is repeated (there are 2 letter M), then, the different number of ways that we can arrange it = $\frac{7!}{2!}$
= $\frac{7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1}{2 \times 1}$ = 2520

77. **Solutions : (c)** If the height and the length of the shadow of an object are equal, the altitude of the sun is always 45º.

78. **Solutions : (d)** Since, the volume of sphere and wire (Cylinder) are same. And, the radius of sphere (R, say) = $\frac{6}{2}$ = 3 cm.
Now, $\pi r^2 h = \frac{4}{3}\pi R^3$
$1^3 \times h = \frac{4}{3} \times 3^3$
h = 36 cm.

79. **Solutions : (b)** 360º = 540
(Royalty) = 36º = $\frac{540}{360} \times 36$ = Rs.54

80. **Solutions : (b)** Paper – Printing = 108º - 72º = 36º
Increase % = $\frac{36}{72} \times 100$ = 50%

81. (c)

82. (c)

83. (b)

84. (c)

85. (a)

86. (a)

87. (a)

88. (d)

89. (d)

90. (b)

91. (d)

92. (b)

93. (a)

94. (a)

95. (b)

96. (a)

97. (d)

98. (d)

99. (a)

100. (c)