

**RRB clerk Pre Memory Based (Quantitative Aptitude)**

S41. Ans.(a)

Sol.

$$\text{Cost price} = \frac{100}{110} \times \frac{100}{115} \times \frac{100}{125} \times 1265 = \text{Rs. } 800$$

S42. Ans.(a)

Sol.

In one hour,  $\frac{1}{6}$  of the cistern can be filled

In one hour, only  $\frac{1}{7}$  of the cistern can be filled due to leak in its bottom

$\therefore$  In one hour  $\frac{1}{6} - \frac{1}{7} = \frac{1}{42}$  of the cistern is empty

$\therefore$  The whole cistern will be emptied in 42 hrs

S43. Ans.(b)

Sol.

Let D be the required distance

$$\text{So, } \frac{D}{3} - \frac{D}{4} = \frac{15+15}{60}$$

$$\text{Or, } D = 6 \text{ km}$$

S44. Ans.(b)

Sol.

$$\text{Let, } M = 3K, W = 2K$$

$$\therefore 3K + 2K = 45 \Rightarrow K = 9$$

$$\Rightarrow \text{Milk} = 27 \text{ litres and water} = 18 \text{ litres}$$

Now suppose x litres of water is added to the mixture such that

$$\frac{27}{18+x} = \frac{9}{11} \Rightarrow 162 + 9x = 297$$

$$\Rightarrow 9x = 135 \Rightarrow x = 15$$

S45. Ans.(a)

Sol.

Let the speed of the current be x Km/h and speed of the person in still water be y km/h.

$$\therefore y + x = 8$$

$$y - x = 6$$

$$\Rightarrow y = 7, x = 1$$

$\therefore$  Speed of the current = 1 Km/h.

S46. Ans.(a)

Sol.

Let the father's age be  $x$  years and age of his children be  $a$  and  $b$  years

$$\therefore (a + b) = \frac{x}{3}$$

$$\text{And } (a + b) + 20 + 20 = x + 20$$

$$\Rightarrow \frac{x}{3} + 20 = x$$

$$\Rightarrow x = 30 \text{ years}$$

S47. Ans.(a)

Sol.

$$\text{Simple interest for 1 year} = \frac{5100}{3} = \text{Rs } 1700$$

$$1\% \text{ of sum} = 17000$$

$$\therefore \text{sum} = \frac{1700 \times 100}{1} = \text{Rs } 17000$$

S48. Ans.(a)

Sol.

One principal can be appointed in 36 days

One vice-principal appointed in remaining 35 ways

$$\therefore \text{Total no. of ways} = 36 \times 35 = 1260.$$

S49. Ans.(b)

Sol.

$\therefore$  Required probability

$$= \frac{{}^{13}C_2 + {}^{13}C_2}{{}^{52}C_2}$$

$$= \frac{78+78}{1326} = \frac{156}{1326} = \frac{2}{17}$$

**Alternately,**

Required probability

$$= \frac{13}{52} \times \frac{12}{51} + \frac{13}{52} \times \frac{12}{51}$$

$$= 2 \times \frac{13}{52} \times \frac{12}{51}$$

$$= \frac{2}{17}$$

S50. Ans.(b)

Sol.

Let,  $P$  be the sum.

$$\therefore 16632 = P \left(1 + \frac{5}{100}\right) \left(1 + \frac{10}{100}\right) \left(1 + \frac{20}{100}\right)$$

$$\text{Or, } 16632 = P \times \frac{21}{20} \times \frac{11}{10} \times \frac{6}{5}$$

$$\text{Or, } P = \text{Rs. } 12,000$$

S51. Ans.(b)

Sol.

$$\begin{aligned}\text{Required difference} &= (40 + 80) - (12 + 58) \\ &= 120 - 70 = 50\end{aligned}$$

S52. Ans.(c)

Sol.

$$\text{Required ratio} = \frac{90 + 27}{13 + 47} = \frac{117}{60} = 19 : 6.$$

S53. Ans.(a)

Sol.

$$\text{Required percentage} = \frac{48 + 12}{15} \times 100 = \frac{60}{15} \times 100 = 400\%$$

S54. Ans.(e)

Sol.

$$\text{Average} = \frac{27 + 15 + 60}{3} = \frac{102}{3} = 34.$$

S55. Ans.(d)

Sol.

Windows phones sold by P on Thursday

$$= \frac{3}{7} \times 28 = 12$$

S56. Ans.(b)

Sol.  $\frac{45}{100}$  of 600 +  $\frac{?}{100}$  of 480 = 390

$$\Rightarrow 270 + 4.8 \times ? = 390$$

$$\therefore ? = \frac{390 - 270}{4.8} = 25$$

S57. Ans.(c)

Sol.  $? = \frac{14}{3} + \frac{43}{6} - \frac{47}{9} = \frac{84 + 129 - 94}{18} = \frac{119}{18} = 6 \frac{11}{18}$

S58. Ans.(d)

Sol.  $\frac{65}{100}$  of 240 +  $\frac{?}{100}$  of 150 = 210

$$\Rightarrow 156 + 1.5 \times ? = 210$$

$$\therefore ? = \frac{210 - 156}{1.5} = 36$$

S59. Ans.(a)

Sol.  $? = \frac{2}{3}$  of  $\frac{7}{5}$  of  $\frac{75}{100}$  of 540 =  $7 \times 54 = 378$

S60. Ans.(a)

Sol.  $? = 555.05 + 55.50 + 5.55 + 5 + 0.55 = 621.65$

S61. Ans.(e)

Sol.

$$\begin{aligned} ? &= 1425 + 8560 + 1680 \div 200 \\ &= 1425 + 8560 + \frac{1680}{200} \\ &= 9985 + 8.4 = 9993.4 \end{aligned}$$

S62. Ans.(d)

Sol.

$$\begin{aligned} \frac{800 \times ?}{100} &= 293 - \frac{750 \times 22}{100} \\ \Rightarrow 8 \times ? &= 293 - 165 = 128 \\ \Rightarrow ? &= \frac{128}{8} = 16 \end{aligned}$$

S63. Ans.(b)

Sol.

$$\begin{aligned} 250 \times \frac{25.6}{100} + \sqrt{?} &= 119 \\ \Rightarrow 64 + \sqrt{?} &= 119 \\ \Rightarrow \sqrt{?} &= 119 - 64 = 55 \\ \Rightarrow ? &= 55 \times 55 = 3025 \end{aligned}$$

S64. Ans.(e)

Sol.

$$\begin{aligned} 4 + \frac{5}{6} - 5 - \frac{5}{9} &=? - 2 - \frac{1}{3} + \frac{11}{18} \\ \Rightarrow ? &= 4 - 5 + 2 + \left( \frac{5}{6} - \frac{5}{9} + \frac{1}{3} - \frac{11}{18} \right) \\ \Rightarrow 1 + \left( \frac{15 - 10 + 6 - 11}{18} \right) &= 1 + 0 = 1 \end{aligned}$$

S65. Ans.(c)

$$\begin{aligned} \text{Sol. } ? &= \left[ \frac{30}{100} \times \left\{ \left( \frac{80}{100} \times 850 \right) \div 34 \right\} \right] \\ &= \left[ \frac{30}{100} \times \{680 \div 34\} \right] \\ &= \left[ \frac{30}{100} \times 20 \right] = 6 \end{aligned}$$

S66. Ans.(d)

Sol. Sides of a triangle are in ratio  $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$ , i.e., 6 : 4 : 3.

Let the sides be 6K, 4K and 3K, respectively.

$$\therefore 13K = 52 \Rightarrow K = 4$$

$\therefore$  Sides of the triangle are 24 cm, 16 cm and 12 cm, respectively.

S67. Ans.(b)

Sol.  $A = B + 25\%$  of B

$$\Rightarrow A = B + \frac{B}{4} = \frac{5B}{4}$$

$$\Rightarrow B = \frac{4}{5}A = A - \frac{1}{5}A = A - 20\% \text{ of } A$$

S68. Ans.(d)

Sol.

$$12\frac{1}{2}\% = \text{Rs } 22.50$$

$$\Rightarrow \text{C.P.} = \text{Rs } 180.$$

S69. Ans.(a)

Sol.

Suppose  $x$  = original number of men in the group

$\therefore (x - 12)$  men did the job in 32 days

$$\therefore 20x = 32(x - 12)$$

$$\text{i.e., } x = 32$$

S70. Ans.(c)

Sol.

Let, the quantity of liquid P and Q be  $5x$  and  $3x$  litres respectively.

$$\text{Quantity of P removed} = \frac{5}{5+3} \times 16 = 10 \text{ litres}$$

$$\text{Quantity of Q removed} = \frac{3}{5+3} \times 16 = 6 \text{ litres}$$

$$\text{Now, } \frac{5x-10}{3x-6+16} = \frac{3}{5}$$

$$\Rightarrow 25x - 50 = 9x + 30$$

$$\Rightarrow 16x = 80$$

$$\Rightarrow x = 5$$

$$\therefore \text{Quantity that vessel hold} = 8 \times 5 = 40 \text{ litres}$$

S71. Ans.(b)

$$\text{Sol. } \frac{50}{100} \text{ of } 250 + \sqrt{?} = 165$$

$$\Rightarrow 125 + \sqrt{?} = 165$$

$$\Rightarrow \sqrt{?} = 40$$

$$\therefore ? = (40)^2 = 1600$$

S72. Ans.(e)

$$\text{Sol. } \frac{140}{100} \text{ of } 56 + \frac{56}{100} \text{ of } 140$$

$$= 78.4 + 78.4 = 156.8$$

S73. Ans.(e)

$$\text{Sol. } ? = 1\frac{1}{4} + 1\frac{5}{9} \times 1\frac{5}{8} \div 6\frac{1}{2} = \frac{5}{4} + \frac{14}{9} \times \frac{13}{8} \div \frac{13}{2}$$

$$= \frac{5}{4} + \frac{14}{9} \times \frac{13}{8} \times \frac{2}{13}$$

$$= \frac{5}{4} + \frac{7}{18} = \frac{45+14}{36} = \frac{59}{36} = 1\frac{23}{36}$$

S74. Ans.(a)

$$\text{Sol. } 999.09 + 99.90 + 9.99 + 9 + 0.99$$

$$= 1118.97$$

S75. Ans.(d)

$$\text{Sol. } \frac{20}{100} \times \left[ \left\{ \left( \frac{220}{100} \times 40 \right) - 10 \right\} \right] \% \text{ of } 500 = ?$$

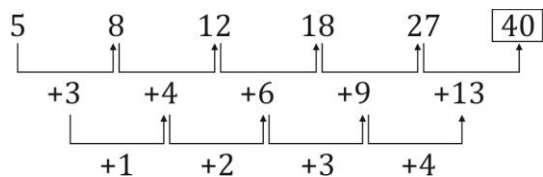
$$\frac{1}{5} \times [(88 - 10)] \% \text{ of } 500 = ?$$

$$\frac{1}{5} \times \frac{78}{100} \times 500 = ?$$

$$? = 78$$

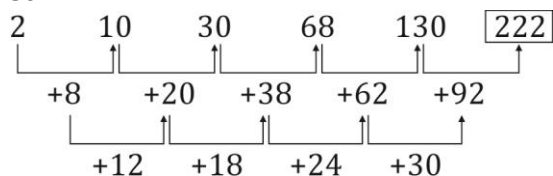
S76. Ans.(b)

Sol.



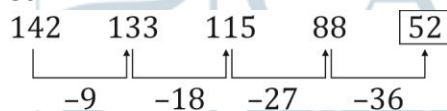
S77. Ans.(c)

Sol.



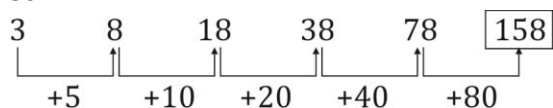
S78. Ans.(e)

Sol.



S79. Ans.(a)

Sol.



S80. Ans.(e)

Sol.

