## RPF MOCK TEST - 4 (SOLUTION)

51. (D) $1+8\left(\frac{1}{10}+\frac{1}{100}+\frac{1}{1000}+\ldots \ldots.\right)$
$=1+8\left(\frac{\frac{1}{10}}{1-\frac{1}{10}}\right)$
$=1+8\left(\frac{\frac{1}{10}}{\frac{9}{10}}\right)=1+\frac{8}{9}=1 \frac{8}{9}$
52. (C) $\frac{m}{w}=\frac{7}{6}$
$\therefore$ Required sum $=\frac{4800}{42} \times(63+84)$

$$
=16800
$$

53. (A) Relative velocity $=\frac{330}{33} \times \frac{18}{5}=36 \mathrm{~km} / \mathrm{hr}$ Required speed $=36+3=39 \mathrm{~km} / \mathrm{hr}$
54. (A)

$\therefore$ Required number of days
$=\frac{180-4 \times 15}{10}=12$
55. (D) Required rate $=\sqrt[3]{\frac{1157.625}{1000}}=\frac{21}{20}$

$$
\frac{(21-20)}{20} \times 100=5 \% \text { per annum }
$$

56. (A) Marked price $=\frac{3120}{65} \times 100=₹ 4800$
57. (C) Value of 8 th result $=(8 \times 57+8 \times 65)-15 \times 60=76$
58. (B) Net rate $=10+10+\frac{10 \times 10}{100}=21 \%$

Required interest $=20,000 \times \frac{21}{100}=₹ 4200$
59. (A)

|  | CP | SP | Profit |
| :--- | :--- | :--- | :--- |
| Old | 100 | 300 | 200 |
| New | 120 | 270 | 150 |

$\therefore$ Profit $=\frac{150}{120} \times 100=125 \%$
60. (D) Increase in total surface area
$=\left(3 \pi r^{2}+3 \pi r^{2}\right)-\left(4 \pi r^{2}\right)$
$=2 \pi \mathrm{r}^{2}$
$=\frac{2 \times 22 \times 7 \times 7}{7}=308 \mathrm{~cm}^{2}$
61. (C) A.T.Q,

Bus $\times 4=\operatorname{man} \times 6$
$\Rightarrow$ man $=$ Bus $\times \frac{4}{6}$
$\therefore$ Speed of man $=30 \times \frac{4}{6}=20 \mathrm{~km} / \mathrm{hr}$
62. (A) $x=0 . \overline{15}$
$\Rightarrow x=\frac{15}{99}=\frac{5}{33}$
Let the capacity be $x$
63. (B) A.T.Q,
$\frac{3_{x}}{4}-\frac{5_{x}}{12}=50 l$
$\Rightarrow \frac{35}{40}=50 l$
$\mathrm{x}=150$ litre
Now, required capacity $=150 l$
64. (D) Required percentage

$$
=\frac{25}{75} \times 100=33.33 \%
$$

65. (C)

A.T.Q,
$\mathrm{b}=$ diameter of circle
$\mathrm{b}=2 \times 3.5=7 \mathrm{~cm}$
and, $l=\sqrt{25^{2}-7^{2}}=24 \mathrm{~cm}$
Area $=24 \times 7=168 \mathrm{~cm}^{2}$
Let the tenth place digit $=x$
66. (C) A.T.Q
$x+2 x-3=\frac{1}{6}(10 x+2 x)$
$3 x-3=2 x$
$x=3$
Required number $=10 x+2 x$
= $10 \times 3+2 \times 3=36$
67. (A) New solution $=300 \times \frac{60}{100} \times \frac{100}{40}=450$

Required quantity $=450-300=150 \mathrm{gms}$
68. (B) Sum of speeds $=\frac{168}{6}=28$

Difference of speeds $=8$ (given)
$\Rightarrow$ Speed of one $=\frac{28+8}{2}=18$
$\Rightarrow$ Speed of another $=10$
$\therefore$ Required ratio $=9: 5$
69. (D)

$\therefore$ Required time $=\frac{20 \times 11-180}{5}=8$ days
70. (A) $\frac{5^{2}+6^{2}+7^{2}+8^{2}+9^{2}}{2+\sqrt{3}-\sqrt{3}-1}=255$
71. (A) Profit $=30 \%-20 \%-\frac{30 \times 20}{100} \%=4 \%$
$\Rightarrow$ S.P. $=\frac{48}{4} \times 104=₹ 1248$
72. (C) Total buckets $=128 \times \frac{3}{2}=192$

Volume of tank $=(1.2)^{3}=1.728 \mathrm{~m}^{3}$

$$
=1728 l
$$

$\therefore$ Required volume $=\frac{1728}{192}=9 l$
73. (B) By cross multiplication
$\Rightarrow \mathrm{ad}=\mathrm{bc}$
74. (D) Total distance moved $=600+600+300$

$$
=1500 \mathrm{~m}
$$

Relative speed $=\frac{1500}{3 \times 60} \times \frac{18}{5}=30 \mathrm{kmph}$
$\therefore$ Speed of train $=30+5=35 \mathrm{kmph}$
75. (A)


Difference between CI and SI
$=390.2-3 \times 125$
$\Rightarrow 3 \mathrm{~A}+\mathrm{B}=15.2$
$\Rightarrow A=5, B=0.2$
$\therefore$ Interest rate $=\frac{B}{A} \times 100=\frac{0.2}{5} \times 100=4 \%$
76. (B) Required time $=\frac{1600 \times 10 \times 900}{1000 \times 800}$

$$
=18 \text { days }
$$

77. (A) A.T.Q,
$\frac{\text { Younger }}{\text { elder }}=\frac{120}{130}$
$\Rightarrow$ Younger's share $=\frac{20000}{25} \times 12=₹ 9600$
78. (B) A.T.Q
$a^{2}+b^{2}+c^{2}=120$
$\Rightarrow 2 \mathrm{c}+\mathrm{c}^{2}=120$
$\Rightarrow \mathrm{c}=10$
$\Rightarrow \mathrm{a}^{2}+\mathrm{b}^{2}=2 \times 10$
$\Rightarrow \mathrm{a}=2, \mathrm{~b}=4$
$\Rightarrow a b c=2 \times 4 \times 10=80$
79. (B) A.T.Q
$a+a+d+a+2 d=30$
$a+d=10$
$\therefore 10(10-d)(10+d)=960$
d $=2$
Required number $=10+2=12$
80. (C) Profit $=\frac{30}{900} \times 100=\frac{10}{3} \%$
$-1510$
$\frac{10}{3}$
$\overline{20} \quad \frac{55}{30}$
$\Rightarrow 20 \quad 55$
C.P. of type-II cake $=\frac{900}{75} \times \frac{55}{6}=₹ 110$
81. (B) A.T.Q
$2 \pi r(r+h)=1320$
$r=7 \mathrm{~cm}$
$h=23 \mathrm{~cm}$
Volume $\frac{22}{7} \times 7 \times 7 \times 23=3542 \mathrm{~cm}^{3}$
82. (A) Ratio of time $=\frac{4}{3}$ ) 1 unit $=20$

4 unit $=80 \mathrm{~min}$
Required time $=80 \mathrm{~min}$
83. (A) Required percentage $=\frac{75}{225} \times 100$

$$
=33.3 \%
$$

84. (A) Required ratio $=1175: 1025$

$$
=47: 41
$$

85. (B) Required percentage

$$
=\frac{325}{400} \times 100=81.25 \%
$$

86. (C) As, Snake is specie of reptiles.

Similarly Salamander is the specie of Amphibian.
87. (B)


Similarly,

88. (A) As,

$(1)^{2} \quad(16)^{2} \quad(11)^{2} \Rightarrow 1256121$
Similarly,

$(12)^{2} \quad(14)^{2} \quad(15)^{2} \Rightarrow 144196225$
89. (D) As,
$534 \Rightarrow \frac{5+3+4}{3}=(2)^{2}$
Similarly, $999 \Rightarrow \frac{9+9+9}{3}=(3)^{2}$
90. (B) As, $42 \Rightarrow 42+\frac{42}{3}=56$

Similarly, $54 \Rightarrow 54+\frac{54}{3}=\mathbf{7 2}$
91. (D) Except 97, the sum of digits of all others is prime number.
92. (D) Except P.V. Sindhu, all others were the gold medalist in commonwealth 2018. While P.V. Sindhu was the silver medalist.
93. (B) Except $17 \mathbf{- 3 4 3}$, square of the product of digits of first number is the second number.
94. (D) Execpt Pakistan, at all other because Indians have don't need of visa to visit.
95. (C)

$\underbrace{\text { C }}_{+(4 \times 2)}{ }_{+10}^{\text {I }} \frac{S}{\text { S }}$

96. (A) As, $6 \times 4 \times 2-(6+4+2)=36$
and, $2 \times 4 \times 5-(2+4+5)=29$
Similarly, $8 \times 6 \times 3-(8+6+3)=\mathbf{1 2 7}$
97. (B) $7 \times 6=42 \Rightarrow 24$
$9 \times 6=54 \Rightarrow 45$
$6 \times 2=12 \Rightarrow \mathbf{2 1}$
98. (B)
99. (B) Book $1>$ book $4>$ book $2>$ book 3
100. (A)

101. (A) From figure

$$
\begin{aligned}
& 6 \leftrightarrow 3 \\
& 2 \leftrightarrow 4 . \\
& 1 \leftrightarrow 5
\end{aligned}
$$

$\therefore 2^{1} 3$ will be formed by folding the figure.
102. (C)
103. (C)
104. (A)

105. (A)
106. (D)

107. (D)
108. (D)

109. (B) $\operatorname{lm} \ln \mathbf{k} / \operatorname{lm} \operatorname{lnk} / \operatorname{lm} \ln \mathbf{k} / \operatorname{lm}$
110. (C)

I. $x$
II. $x$
III. $\checkmark$
IV. $x$

Hence, only conclusion III follows.
111. (B) As, $(2)^{2}+(3)^{3}=31$
and, $(6)^{1}+(4)^{1}=22$
Similarly, $(3)^{4}+(4)=85$
112. (A) As, $576-135=441$
and, $472-135=337$
Similarly, 341 - $135=206$
113. (C)
114. (B)
115. (C)
116. (B)

117.

118. (A) 14 C 10 A 42 D 2 B 8

After changing the signs,
$14 \times 10+42 \div 2-8$
$=14021-8$
$=153$
119. (C) Number of triangles $=15$
120. (D) R A T E S
$\begin{array}{lllll}\downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 02, & 12, & 67, & 04, & 96\end{array}$

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## CHAPTERS <br> * Foreign Words <br> *Phrasal Verbs <br> * Superfluous <br> * Expression <br> *Sentence Improvement

Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

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