## RRB MOCK TEST-11 (SOLUTION)

1. (D) PRACTICE®ECITCARP $12345678 \quad 87654321$
Similarly
M O NKEY ® YEKNOM
123456654321
2. (B) As, $7+2$ p $(9)^{2}=81$
$5+1$ р $(6)^{2}=36$
and $(6+6)$ p $(12)^{2}=144$
3. (A) Order of the given series :


Hence, 80 is wrong number
4. (C)
5. (D) Jameshedpur is not a capital of any state, where as others are a capital of a state.
6. (D)
7. (D) ATQ,


Hence, According to the above, Relation between $Y$ and $Z$ are daughter and father.
8. (D)


Similarly,

9. (D) $A \underline{Z} V / Z \underline{V} A / V \underline{A} Z / A \underline{Z} V$
10. (C)
11. (B) $2 \times 5=10,10-3=7$
and $7 \times 2=14,14-1=13$
Similarly, $5 \times 4=20,20-?=15$
$\backslash$ ? = 5
12. (C)

I. Doubt
II. Doubt
or
13. (B)

I. False
II. True
14. (A)

I. True
II. False
15. (A) After changing the sign

$$
8 \div 4-3+5 \times 8
$$

$=2-3+40$
$=40+2-3=39$
16. (B) $\because G O=(7+15)+10=32$
and SHE $=(19+8+5)+10=42$
$\backslash \mathrm{SOME}=(19+15+13+5)+10=62$
17. (C) ATQ,
$A \times B ® B$ is mother of $A$.
$A+B{ }^{\circledR} B$ is husband of $A$. then from option (c),
From, $\mathrm{K}+\mathrm{M}+\mathrm{N}$
$K+M{ }^{\circledR} \quad M$ is husband and mother of $K$.
$\because \mathrm{M}$ is husband of K , hence M is male and
N is mother of M . Hence, M is son of N .
18. (D) Letter, word, sentence, Paragraph. $\begin{array}{llll}4 & 1 & 3 & 2\end{array}$
19. (B) Standing order of boys

20. (A)
21. (D) In figure I,
$27+63+3=93$
On figure II,
$38+37+4=79$
Similarly,
In figure III,

$$
16+42+(?)=67
$$

$\backslash \quad ?=9$
22. (B) $\backslash \frac{K}{T}=\frac{11}{20}:: \frac{J}{R}:$ ?

$$
\text { е } \frac{K(11)}{T(20)}=\frac{11}{20}:: \frac{J(10)}{R(18)}=\frac{10}{18}
$$

$$
\backslash ?=\frac{10}{18}
$$

23. (D)
24. (C) When a year leaves a remainder 0 when divided by 4 , then it is a leap year. Here, 1863 divided by 4 does not give a remainder 0 .
So, 1863 is not a leap year.

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25. (C) The hands of a clock coincide 11 times in every 12 hours (Since between 11 and 1, they coincide only once, i.e., at 12 o'clock).
26. (B) CP. of 600 mangoes $=6 \times 125=₹ 750$
S.P. of 600 mangoes $=750+150=₹ 900$
$\therefore$ S.P. of 12 mangoes $=\frac{900}{600} \times 12=₹ 18$
27. (C) Rate $=\frac{\text { S.I } \times 100}{\text { Principle } \times \text { Time }}$

$$
=\frac{9 \times 100}{1 \times 60}=15 \% \text { per annum }
$$

28. (B) Length of the largest possible square tile
$=\mathrm{HCF}$ of 5.44 m and 3.74 m
$=\mathrm{HCF}$ of 544 cm and 374 cm
$=34 \mathrm{~cm}$
29. (B) Let the amount of milk and water are $5 x$ and $4 x$ respectively.

By question, $\frac{5 x}{x+5}=\frac{5}{2}$
$\Rightarrow 2 x=x+5 \therefore x=5$
$\therefore$ amount of milk $=5 x=5 \times 5=25 L$
30. (C) $\mathrm{LCM}=2 \times 3 \times 3 \times 2 \times 5=180$ seconds
$=3$ minutes
$\therefore$ Required answer $=\frac{30}{3}+1=11$
31. (D) $?=\frac{6.5 \times 4.7+6.5 \times 5.3}{1.3 \times 7.9-1.3 \times 6.9}$
$=\frac{6.6(4.7+5.3)}{1.3(7.9-6.9)}=\frac{6.5 \times 10}{1.3}=50$
32. (B) Ravi's present age $=3 x$ years.

Jai's present age $=2 x$ years 4 years ago,
$(3 x-4)-(2 x-4)=6 \Rightarrow x=6$
$\therefore$ Jai's present age $=2 x$
$=2 \times 6=12$ years
33. (B) Let the integer be $x$.

According to the question,
$x^{2}-15 x=16$
$\Rightarrow x(x-15)=16(16-15)$
$\Rightarrow x=16$
34. (D) The pattern is:
$5 \times 2-2=10-2=8$
$8 \times 2-2=16-2=14$
$14 \times 2-2=28-2=26$
$26 \times 2-2=52-2=50$
$50 \times 2-2=100-2=98$
35. (A) 3 men can do the work in 6 days. 5 women can do the same work in 18 days.
$\therefore(3 \times 6)$ men $=(5 \times 18)$ women
$\Rightarrow 1$ man $=5$ women
$\therefore 4$ men +10 women $=(20+10)$ women
$=30$ women
$\therefore \mathrm{M}_{1} \mathrm{D},=\mathrm{M}_{2} \mathrm{D}_{2}$
$\Rightarrow 5 \times 18=30 \times \mathrm{D}_{2}$
$\Rightarrow \mathrm{D}_{2}=\frac{5 \times 18}{30}=3$ days .
36.
(C) $\mathrm{A}+\mathrm{B}=60^{\circ}$
$A-B=30^{\circ}$
$2 \mathrm{~A}=90^{\circ}$
$\mathrm{A}=45^{\circ}$
and $\mathrm{B}=15^{\circ}$
Now, $\operatorname{Sin} A \times \operatorname{Cos} A$
$=\operatorname{Sin} 45^{\circ} \times \cos 45^{\circ}$
$=\frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}}=\frac{1}{2}$
37. (B) According to question,
$A=\frac{3}{2} B$
$\Rightarrow \mathrm{A}: \mathrm{B}=2: 3$
Again, $\mathrm{B}=\frac{\mathrm{C}}{2}$
$\Rightarrow \mathrm{B}: \mathrm{C}=1: 4=3: 12$
$\therefore \mathrm{A}: \mathrm{B}: \mathrm{C}=2: 3: 12$
Sum of ratios $=2+3+12=17$
$\therefore A \Rightarrow \operatorname{Rs} .\left(\frac{2}{17} \times 680\right)=₹ 80$
$B \Rightarrow \operatorname{Rs} .\left(\frac{3}{17} \times 680\right)=₹ 120$
$C \Rightarrow \operatorname{Rs} .\left(\frac{12}{17} \times 680\right)=₹ 480$
38. (D) $\because \mathrm{P}$ completes a work in 20 days.
$\therefore$ P completes the Parts work in $\frac{1}{20}$ day.
like this, Q complete a work in 1 day is $\frac{1}{40}$.
Both work alternately,
So, the work of two days
$=\frac{1}{20}+\frac{1}{40}$
$=\frac{2+1}{40}=\frac{3}{40}$
So,
$\frac{3}{40} \times 13+\frac{1}{40}=\frac{39}{40}+\frac{1}{40}=\frac{40}{40}=1$
$\therefore$ total time taken
$=2 \times 13+1=27$ days .

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39. (D) We know that diagonal of cube

$$
=2 \sqrt{3} \mathrm{~cm}
$$

Diagonal $=\sqrt{3} \times$ side
$\therefore 2 \sqrt{3} \mathrm{~cm}=\sqrt{3}$ side
$\therefore$ side $=2 \mathrm{~cm}$
Surface area of cube $=6 \times(\text { side })^{2}$
$=6 \times(2 \mathrm{~cm})^{2}=24 \mathrm{~cm}^{2}$
40. (D) $\frac{1}{\left(1+\tan ^{2} \theta\right)}+\frac{1}{\left(1+\cot ^{2} \theta\right)}$
$=\frac{1}{\sec ^{2} \theta}+\frac{1}{\operatorname{cosec}^{2} \theta}$
$=\operatorname{Cos}^{2} \theta+\operatorname{Sin}^{2} \theta=1$
41. (C) $\mathrm{SI}=\frac{\text { Principal } \times \text { Rate } \times \text { Time }}{100}$
$=\frac{2400 \times 12 \times 5}{100 \times 2}=₹ 720$
$\therefore$ Amount to be paid $=2400+720$
= ₹ 3120
$\therefore 1200+$ Cost of cow $=₹ 3120$
$\therefore$ Cost of cow $=3120-1200=₹ 1920$
42. (B) H.C.F. $=37$

So, Let biggest number $=37 x$ and smallest
$=37 y$
$\therefore$ L.C.M. $=37 x y$
By question, L.C.M.
$=\frac{\text { Product of both numbers }}{\text { H.C.F. }}$
$\therefore 37 x y=\frac{4107}{37}=111$
$\therefore x y=\frac{111}{37}=3 \times 1$
So $x=3$ and $y=1 \quad$ (it is possible)
$\therefore$ biggest number is $37 x$
$=37 \times 3=111$
43. (A) Capacity of bucket $=x$ litres
$\therefore\left(80-66 \frac{2}{3}\right) \%$ of $x=2$
$\Rightarrow\left(80-\frac{200}{3}\right) \times \frac{x}{100}=2$
$\Rightarrow \frac{240-200}{3} \times \frac{x}{100}=2$
$\Rightarrow 40 x=2 \times 300$
$\Rightarrow x=\frac{2 \times 300}{40}=15$ litres
44.

$$
\begin{aligned}
& \text { (A) } \frac{1}{1+\frac{1}{1+\frac{1}{x}}}=2 \\
& \Rightarrow \frac{1}{1+\frac{1}{\frac{x+1}{x}}}=2 \\
& \Rightarrow \frac{1}{1+\frac{x}{x+1}}=2 \\
& \Rightarrow \frac{1}{x+1+x}=2 \Rightarrow \frac{x+1}{2 x+1}=2 \\
& \Rightarrow 4 x+2=x+1 \\
& \Rightarrow 4 x-x=1-2 \Rightarrow 3 x=-1 \\
& \Rightarrow x=-\frac{1}{3}
\end{aligned}
$$

45. (B) Initial quantity of iron $=3 x \mathrm{~kg}$.

Quantity of carbon $=4 x \mathrm{~kg}$.
On adding 120 kg . of iron,
$\frac{3 x+120}{4 x}=\frac{5}{4}$
$\Rightarrow 20 x=12 x+480$
$\Rightarrow 20 x-12 x=480$
$\Rightarrow 8 x=480 \Rightarrow x=\frac{480}{8}=60$
$\therefore$ Initial quantity of iron $=3 x$
$=3 \times 60=180 \mathrm{~kg}$.
46. (C) Required average

$$
\begin{aligned}
& =\frac{84}{5} \times 1000 \\
& \text { = ₹ } 16800
\end{aligned}
$$

47. (B) Required ratio $=16: 8=2: 1$
48. (A) Required $\%=\frac{\mathfrak{2}}{8} \frac{2}{18} \cdot 100 \frac{\ddot{\dot{\emptyset}} \%}{\ddot{\circ}} \%$

$$
=\frac{100}{9} \%=11 \frac{1}{9} \%
$$

49. (D) See the table
50. (C) Total amount $=(18+18) \times 1000$

$$
=₹ 36000
$$

## RRB MOCK TEST-11 (ANSWER KEY)

1. (D)
2. (B)
3. (C)
4. (B)
5. (B)
6. (C)
7. (D)
8. (B)
9. (B)
10. (D)
11. (A)
12. (C)
13. (B)
14. (D)
15. (D)
16. (D)
17. (C)
18. (B)
19. (A)
20. (A)
21. (B)
22. (C)
23. (B)
24. (A)
25. (D)
26. (C)
27. (D)
28. (B)
29. (B)
30. (A)
31. (A)
32. (B)
33. (A)
34. (A)
35. (C)
36. (B)
37. (D)
38. (D)
39. (B)
40. (A)
41. (A)
42. (A)
43. (A)
44. (B)
45. (A)
46. (A)
47. (B)
48. (D)
49. (D)
50. (C)
51. (B)
52. (A)
53. (A)
54. (A)
55. (D)
56. (A)
57. (B)
58. (A)
59. (C)
60. (B)
61. (B)
62. (A)
63. (B)
64. (B)
65. (D)
66. (B)
67. (D)
68. (B)
69. (A)
70. (A)
71. (C)
72. (C)
73. (A)
74. (D)
75. (B)
76. (C)
