Quiz Date: $13^{\text {th }}$ February 2020
Q1. A man bought an article for Rs. 648 after getting 2 successive discounts on the marked price of the article of Rs. 840. If the first discount is $14 \frac{2}{7} \%$, then find the second discount percentage?
(a) $8 \%$
(b) $10 \%$
(c) $12 \%$
(d) $15 \%$
(e) $16 \%$

Q2. If $A: B: C=1: 3: 5$ and $B: D=4: 5$ then find $A: D$ ?
(a) $3: 25$
(b) $3: 5$
(c) $4: 15$
(d) $1: 15$
(e) 5:16

Q3. A and B alone can do a piece of work in 10 days and 12 days respectively and with the help of $C$ they all together can complete the same work in 4days, then find in how many days C can complete the same work?
(a) 10 days
(b) 12 days
(c) 15 days
(d) 13 days
(e) 8 days

Q4. If A can do $\frac{1}{4}$ th of a work in 12 days and B can complete the $\frac{1}{2}$ th of same work in 8 days, then find in how many days A and B together can complete the 2 times of same work?
(a) 16 days
(b) 18 days
(c) 20 days
(d) 12 days
(e) 24 days

Q5. The cost price of the two articles A and B is in the ratio of 3:2. The shopkeeper sold article A at 30\% profit and article B at 40\% profit. Find the overall profit percent of the shopkeeper?
(a) $32 \%$
(b) $36 \%$
(c) $38 \%$
(d) $34 \%$
(e) $30 \%$

Q6. Veer covers a certain distance in a certain time. If he increases his speed by 10 kmph then he reached at the destination 2 hours before but when decreased by 10 kmph , time taken by Veer increased by 3 hours. Find out the certain distance?
(a) 500 km
(b) 480 km
(c) 600 km
(d) 720 km
(e) 640 km

Q7. Veer invested one third of his total investment at $6 \%$ and remaining investment at the rate of $9 \%$ for one year and received total interest of Rs. 960 . find the total sum invested by veer?
(a) Rs. 10,000
(b) Rs. 14,000
(c) Rs. 12,000
(d) Rs. 16,000
(e) Rs. 18,000

Q8. Present ages of Veer and Vedanta is in the ratio of 2:3, 8 years hence the ratio becomes $18: 25$, then find out the ratio of ages of Veer and Vedanta 4 years ago?
(a) $10: 17$
(b) $13: 17$
(c) $15: 17$
(d) $16: 23$
(e) 12:19


Q9. A boat can cover a certain distance of 180 km and come back in 12.5 hours. If the ratio of speed of boat in still water is in the ratio of 5:1, then find out the speed of boat in still water (in $\mathrm{km} / \mathrm{h}$ )?
(a) $25 \mathrm{~km} / \mathrm{h}$
(b) $28 \mathrm{~km} / \mathrm{h}$
(c) $30 \mathrm{~km} / \mathrm{h}$
(d) $26 \mathrm{~km} / \mathrm{h}$
(e) $32 \mathrm{~km} / \mathrm{h}$

Q10. Deepak can row 18 kmph in still water and he covers twice distance in downstream as much as that of upstream in same time. Find the speed of current.
(a) 5 kmph
(b) 8 kmph
(c) 6 kmph
(d) 4 kmph
(e) 3 kmph

Q11. Two letters are chosen out of the alphabets from the English language. Find out the probability that both the letters are consonant?
(a) $\frac{2}{3}$
(b) $\frac{12}{65}$
(c) $\frac{5}{6}$
(d) $\frac{42}{65}$
(e) $\frac{8}{9}$

Q12. If the simple interest on a certain sum of money for 4 years at $3 \%$ per annum is same as the simple interest on Rs. 640 for 3 years at $6 \%$ per annum, then find the sum of money?
(a) Rs. 960
(b) Rs. 640
(c) Rs. 800
(d) Rs. 840
(e) Rs. 720

Q13. $A, B$ and $C$ were sharing profits in the ratio of $3: 6: 7$. If time taken by $A, B$ and $C$ in the partnership is in the ratio of 2:3:2 and capital taken by B be Rs. 4800 , then find out the capital share of A?
(a) Rs. 3200
(b) Rs. 3600
(c) Rs. 3800
(d) Rs. 4200
(e) Rs. 3000

Q14. The average speed of a school bus is $72 \mathrm{~km} / \mathrm{h}$ excluding its stoppage time and if stoppage time is included its average become $60 \mathrm{~km} / \mathrm{hr}$. How many minutes does the school bus stop in an hour?
(a) 12 min
(b) 18 min
(c) 16 min
(d) 14 min
(e) 10 min

Q15. Mohit invested Rs. 6000 in a scheme offering simple interest for two years. At the rate of interest for first year and second year is $10 \%$ and $12 \%$ per annum respectively. Find the interest earned by him.
(a) Rs. 1320
(b) Rs. 1220
(c) Rs. 1680
(d) Rs. 1570
(e) Rs. 1380

## Solutions

S1. Ans. (b)
Sol.
Let second discount be r\%.
ATQ
$840 \times \frac{6}{7} \times \frac{100-r}{100}=648$
So, r=10\%


S2. Ans. (c)
Sol.
$\mathrm{A}: \mathrm{B}=1: 3$
And B:D $=4: 5$
A:B:D $=4: 12: 15$
So, $A: D=4: 15$
S3. Ans. (c)
Sol.
1 day efficiency of $\mathrm{A}=\frac{1}{10}$ unit
1 day efficiency of $\mathrm{B}=\frac{1}{12}$ unit
And 1 day efficiency of $\mathrm{A}, \mathrm{B}$ and C together $=\frac{1}{4}$ unit
So, 1 day efficiency of $\mathrm{C}=\frac{1}{4}-\frac{1}{10}-\frac{1}{12}=\frac{1}{15}$ unit
Required time $=15$ days.

S4. Ans. (e)
Sol.
1 day efficiency of $\mathrm{A}=\frac{1}{48}$ unit
1 day efficiency of $B=\frac{1}{16}$ unit
So, 1 day efficiency of $A$ and $B$ together $=\frac{1}{48}+\frac{1}{16}=\frac{1}{12}$
So, required time $=2 \times 12=24$ days.
S5. Ans. (d)
Sol.
Let cost price of the article A and B be Rs. 300x and Rs. 200x respectively. ATQ,
Selling price of the article A and B be Rs. Rs. 390x and Rs. 280x.
Required percentage $=\frac{390 x+280 x-300 x-200 x}{300 x+200 x} \times 100$

$$
=34 \%
$$

S6. Ans. (c)
Sol.
Let speed of veer $=\mathrm{skmph}$
ATQ,
$\frac{s(s+10)}{10} \times 2=\frac{s(s-10)}{10} \times 3$
$\mathrm{S}=50 \mathrm{kmph}$
Distance $=\frac{50 \times 60}{10} \times 2=600 \mathrm{~km}$.
S7. Ans. (c)
Sol.
Let investment = Rs. X
ATQ,
$\frac{x}{3} \times \frac{6}{100}+\frac{2 x}{3} \times \frac{9}{100}=960$
$\mathrm{X}=$ Rs. 12,000

S8. Ans. (e)
Sol.
Let present ages of Veer and Vedanta be 2x and 3x years respectively.
ATQ,

$$
\begin{aligned}
& \frac{2 x+8}{3 x+8}=\frac{18}{25} \\
& x=14
\end{aligned}
$$

$$
\text { required ratio }=28-4: 42-4
$$

$$
=24: 38
$$

$$
\text { = 12: } 19
$$

S9. Ans. (c)

Sol.
Let speed of boat in still water and speed of stream be 5 x and x years respectively.
$\frac{180}{6 x}+\frac{180}{4 x}=12.5$
$\mathrm{x}=6$
so, speed of boat $=30 \mathrm{~km} / \mathrm{h}$.
S10. Ans. (c)
Sol.
Let distance = D km
And speed of current $=x$ kmph
ATQ,
$\frac{D}{18-x}=\frac{2 D}{18+x}$
On solving the equations
$\mathrm{x}=6$
S11. Ans. (d)
Sol.
Sample for both letters to be consonants.
$={ }^{21} \mathrm{C}_{2}=210$
Total sample for two letters
$={ }^{26} \mathrm{C}_{2}=325$
Required probability $=\frac{210}{325}=\frac{42}{65}$


S12. Ans. (a)
Sol.
Let the sum be Rs. P.
ATQ,
$\frac{P \times 3 \times 4}{100}=\frac{640 \times 6 \times 3}{100}$
$\mathrm{P}=$ Rs. 960

S13. Ans. (b)
Sol.
ATQ,

| Capital | A | B | C |
| :--- | :---: | :---: | :---: |
| Time | 2 | 3 | 2 |
| .......................................................... |  |  |  |

Profit $3 \quad 6 \quad 7$
So, A: B: C =3: 4: 7
Since, Capital of B = Rs. 4800
So, A's capital $=\frac{4800}{4} \times 3=R s .3600$

S14. Ans. (e)
Sol.
ATQ,
Required time $=\frac{72-60}{72} \times 60=10 \mathrm{~min}$
S15. Ans. (a)
Sol.
ATQ,
$\frac{60000 \times(10+12)}{100}$
=Rs. 1320


