Direction (1-5) : What will come in the place of (?) mark in following question.
Q1. $1024 \div 8 \div 4=256 \div ?$
(a) 5
(b) 8
(c) 10
(d) 9
(e) 4

Q2. $\frac{1}{5}$ of $(\sqrt{625}+\sqrt{900}) \times 2=\frac{?}{2}$
(a) 22
(b) 40
(c) 35

(d) 44
(e) 47

Q3. $(80 \%$ of $125+125 \%$ of 80$) \div ?=20$
(a) 8
(b) 10
(c) 9
(d) 6
(e) 5

Q4. $4 \frac{2}{3}+3 \frac{1}{3}=?-3 \frac{2}{3}+2 \frac{1}{3}$
(a) $8 \frac{1}{3}$
(b) $9 \frac{2}{3}$
(c) $9 \frac{1}{3}$
(d) $8 \frac{2}{3}$
(e) $10 \frac{2}{3}$

Q5. $\sqrt{289}+\sqrt{121}+9^{2}=?+\sqrt{441}$
(a) 68
(b) 64
(c) 62
(d) 72
(e) 88

Q6. Two containers contain mixture of milk and water in ratio of 3:2 and 2:3 respectively. If equal quantity of both is mixed then find the ratio of milk to water in final mixture?
(a) $2: 3$
(b) $3: 2$
(c) $2: 5$
(d) $1: 1$
(e) $5: 2$


Q7. The simple interest on a certain sum of money at $10 \%$ per annum for 3 years be Rs. 2100. Find out the compound interest on Rs. 2000 more than initial sum at same rate of interest for 2 years?
(a) Rs 1760
(b) Rs 1820
(c) Rs 1800
(d) Rs 1585
(e) Rs 1890

Q8. A boat takes 2 hours less to cover 240 km in downstream than that of in upstream. Speed of boat in still water and stream is in the ratio of $5: 1$. Find the speed of boat in still water?
(a) 50 kmph
(b) 40 kmph
(c) 45 kmph
(d) 60 kmph
(e) 48 kmph

Q9. Deepak \& Aayush entered into a partnership by investing the capital of Rs. 21000 and Rs. 35000 . Due to some reason Deepak withdraws Rs. 6000 after 4 months. Aayush gets Rs. 2100 as the profit at the end of year. Find the share profit of Deepak?
(a) Rs 1000
(b) Rs 1020
(c) Rs 1200
(d) Rs 1050
(e) Rs 1250

Q10. If length and breadth of a rectangle increases by $20 \%$ and $10 \%$ respectively then area of the rectangle increased to $198 \mathrm{~cm}^{2}$, then find the original area of the rectangle?
(a) $144 \mathrm{~cm}^{2}$
(b) $158 \mathrm{~cm}^{2}$
(c) $150 \mathrm{~cm}^{2}$
(d) $120 \mathrm{~cm}^{2}$
(e) can't be determined

Q11. 18 men can do a work in 5 days while 20 women can do the same work in 9 days. In how many days 3 men \& 9 women together can do the same work?
(a) 12 days
(b) 24 days
(c) 18days
(d) 15 days
(e) 16 days

Q12. A train can cover a certain distance in 8 hours at the speed of $x$ kmph then by what percent should the speed of train be increased to cover the same distance in 5 hours?
(a) $60 \%$
(b) $40 \%$
(c) $50 \%$
(d) $100 \%$
(e) 75\%


Q13. The ratio of the ages of Veer and Avanti 4 years ago was $13: 10$. The ratio of their ages 6 years hence will be 6:5. Find the age difference of Veer and Avanti 9 years hence?
(a) 5 years
(b) 3 years
(c) 6 years
(d) 7 years
(e) None of these

Q14. Two trains A and B of same length are running in opposite direction on the parallel tracks. If they take to cross a pole is in 8 sec and 4 sec then, find time taken by the trains to cross each other?
(a) 7.33 sec
(b) 12 sec
(c) 4.2 sec
(d) 5.33 sec
(e) Cannot be determined

Q15. If a discount of $14 \frac{2}{7} \%$ is given on an article then $20 \%$ profit is earned, then find the profit percent if the article is sold at marked price?
(a) $35 \%$
(b) $40 \%$
(c) $42 \%$
(d) None of these
(e) $36 \%$


Solutions

S1. Ans(b)
$\frac{1024}{8 \times 4}=\frac{256}{?}$
$?=\frac{256}{32}$
? = 8

S2. Ans(d)
Sol.
$(25+30) \times \frac{2}{5}=\frac{?}{2}$
$?=44$

S3. Ans(b)
Sol.
$\left(\frac{80}{100} \times 125+\frac{125}{100} \times 80\right) \div ?=20$
$?=200 \div 20$
$?=10$

S4. Ans(c)
Sol.
$?=(4+3+3-2)+\frac{2+1+2-1}{3}$
$?=9 \frac{1}{3}$


S5. Ans(e)
Sol.
$?=17+11+81-21$
? $=88$

S6. Ans(d)
Sol. let initial quantity of milk \& water in both containers be $3 x \& 2 x$ lit and $2 y$ and $3 y$ lit respectively.

Since both containers mixed in same quantity.
So, $x=y$
ATQ,
Required ratio $=\frac{3 x+2 y}{2 x+3 y}=1: 1$

S7. Ans(e)

Sol. let Principal be P
ATQ, $2100=\frac{P \times 10 \times 3}{100}$
$\mathrm{P}=7000$
Effective rate of interest for 2 years $=10+10+10 \times \frac{10}{100}$
=21\%

Required interest $=\frac{9000 \times 21 \times 1}{100}=$ Rs 1890

S8. Ans(a)
Sol. let speed of boat in still water \& speed of stream be $5 \mathrm{x} \& \mathrm{x}$ kmph respectively
ATQ, $\frac{240}{5 x-x}-\frac{240}{5 x+x}=2$
$\mathrm{x}=10$
required speed $=5 x=50 \mathrm{kmph}$

S9. Ans(b)
Sol.
Profit ratio $=$ Deepak: Aayush $=(21000 \times 4)+(15000 \times 8): 35000 \times 12$
= 17:35
ATQ,
Required share $=\frac{17}{35} \times 2100$

$$
=\text { Rs } 1020
$$

S10. Ans(c)
Sol. let length \& breadth of rectangle be x \& y m respectively ATQ,
$1.2 x \times 1.1 y=198$
So, required area $(x \times y)=150 \mathrm{~cm}^{2}$

## S11. Ans(a)

Sol. let total work be 180 units
Efficiency of 1 man $=\frac{180}{18 \times 5}=2$ units/day
Efficiency of 1 woman $=\frac{180}{20 \times 9}=1$ units/day
Required time $=\frac{180}{3 \times 2+9 \times 1}=12$ days


S12. Ans(a)
Sol.
Total distance $=8 \times x=8 \mathrm{xkm}$
Required speed $=\frac{8 x}{5}=1.6 x \mathrm{kmph}$
Required $\%=\frac{1.6 x-x}{x} \times 100=60 \%$


## S13. Ans.(c)

Sol.
Let 4 years ago, ages of Veer and Avanti were 13x years and 10x years, respectively.
Then, present age of Veer $=(13 x+4)$
and present age of Avanti $=(10 \mathrm{x}+4)$
According to the question,
$\frac{13 x+4+6}{10 x+4+6}=\frac{6}{5}$
$\Rightarrow 65 \mathrm{x}+50=60 \mathrm{x}+60$
$\Rightarrow 5 \mathrm{x}=10$
$\therefore \mathrm{x}=2$
Hence, required difference $=13 \times 2-10 \times 2$

$$
=6 \text { years }
$$

S14. Ans(d)
Sol. required time $=\frac{2 \times 8 \times 4}{(8+4)}$
$=\frac{16}{3}=5.33 \mathrm{sec}$

S15. Ans(b)
Sol. let CP of article be Rs 5 x
SP = Rs 6x
MRP = Rs. 7x
ATQ,
$\frac{7 x-5 x}{5 x} \times 100$
$=40 \%$


