Practice Questions

Percentage (Part I)

With Solutions

1. 20% of 35% of a number is 175. What is 18% of that number?

1) 350

2) 450

3) 250

4) 300

5) None of these

Ans: 2

2. $\frac{1}{2}$ of $\frac{3}{4}$th of $\frac{2}{5}$th of a number is 3621. What is 35% of that number?

1) 8049

2) 8849

3) 8989

4) 8449

5) None of these

Ans 4

3. In a school, there are 600 students out of whom 20 percent are girls. Each boy's monthly fee is Rs. 250 and each girl's monthly fee is 30 per cent less than that of a boy. What is the total monthly fee of all the girls and boys together?

1) Rs. 1,35,000

2) Rs.1,45,000

3) Rs.1,41,000

4) Rs.1,30,000

5) None of these

Ans: 3

4. Two numbers are respectively 20% and 50% more than a third number. First number is how much % less than the second number?

1) 25%

2) 20%

3) 10%

4) 30%

5) None of these

Ans: 2

5. Two numbers are respectively 20% and 40% less than a third number. What % of first number is the second number?

1) 65%

2) 45%

3) 75%

4) 60%

5) None of these

Ans: 3

6. Population of a town has decreased from 60,000 to 45,000. Find the decrease percent?

1) 35%

2) 45%

3) 25%

4) 30%

5) None of these

Ans: 3

7. The population of a village increase at the rate of 10% during the first year and decreases at the rate of 20% during the second year. If it has 17,600 inhabitants at present then find the number of inhabitants two years ago?

1) 35,000

2) 20,000

3) 25,000

4) 30,000

5) None of these

Ans: 2

8. Raghu's salary is 60% more than that of Vasu. How much % is Vasu's salary less than that of Raghu?

1) 35%

2) 45%

3) 37.5%

4) 30%

5) None of these

Ans: 3

9. In an examination 40% candidates passed and 1,800 failed. How many candidates appeared for the examination?

1) 3500

2) 4500

3) 2500

4) 3000

5) None of these

Ans: 4

10. The price of a shirt is increased by 30% and then decreased by 25% what is the net change in the price (in %)?

1) 3.5% decrease

2) 4.5% increase

3) 2.5% decrease

4) 3.0% increase

5) None of these

Ans: 3

Solutions

Sol-1-

Let the number be x.

$\therefore$ 20% of 35% of x = 175

$\Rightarrow x = \frac{175 \times 100 \times 100}{20 \times 35}$

$\Rightarrow$18% of $x = \frac{175 \times 100 \times 100}{20 \times 35} \times \frac{18}{100} = 450$

Sol-2-

Let the number be x.

$\therefore \frac{1}{2}$ of $\frac{3}{4} \times$ of $\frac{2}{5}$ of x = 3,621

$\Rightarrow x = 3621 \times \frac{2 \times 4 \times 5}{1 \times 3 \times 2}$

$\therefore$ 35% of x = 3,621 $\times \frac{2 \times 4 \times 5}{1 \times 3 \times 2} \times \frac{35}{100}$

$\Rightarrow x$ = 8,449

Sol-3-

Total no. of Boys = 600 $\times \frac{80}{100}$ = 480

$\Rightarrow$ Total monthly Fees of boys = 480 × 250=1,20,000

$\Rightarrow$ Total no. of Girls = 600 $\times \frac{20}{100}$=120

$\Rightarrow$ Each Girl's monthly fees = 250 $\times \frac{70}{100}$= 175

$\Rightarrow$ Total monthly fee's girls= 120 × 175=21,000

$\Rightarrow$ Total monthly fees of all girls and boys = 1,20,000 + 21, 000 = Rs. 1,41,000

Sol-4-

Let, 3rd no. = 100

then, 1st no. = 120

and 2nd no. = 150

$\therefore$ Reqd. % = $\frac{150-120}{150} \times 100 = 20\%$

Sol-5-

Let, 3rd no. = 100

then 1st no. = 80

and 2nd no. = 60

$\therefore$ Reqd. % = $\frac{60}{80} \times 100 = 75\%$

Sol-6-

Reqd. % decrease= $\frac{60000-45000}{60000} \times 100 = \frac{15000}{60000} \times 100 = 25\%$

Sol-7

Let, the no. of inhabitants 2 yrs. ago = x

$\therefore x \times 110\% \times 80\% = 17{,}600$

$\therefore x = \frac{17600 \times 100 \times 100}{110 \times 80} = 20{,}000$

Sol-8-

Let, Vasu's Salary = Rs.100

∴ Raghu's Salary = Rs.160

∴Reqd. % = $\frac{60}{160}$ × 100 = 37.5 %

Sol-9-

Let the number of total candidates be x

∴ 60 % of x = 1,800

$\Rightarrow \quad x = \frac{1800 \times 100}{60}$

$\therefore \quad x = 3{,}000$

Sol-10-

Let, the original price of the shirt = Rs.100

∴ Now, price of the shirt = Rs. 100 × 130% × 75% = Rs. 97.50

∴ Reqd. % = 100 – 97.50 = 2.5% decrease