Comparing Quantities

Question 1.
Convert 0.09 into per cent.
(a) 9%
(b) 8%
(c) 10%
(d) None of these

Answer: (a) 9%
Given number is multiplied by 100 and then divided by 100.

Question 2.
Convert 0.2 into per cent.
(a) 200%
(b) 2%
(c) 20%
(d) None of these

Answer: (c) 20%
Given number is multiplied by 100 and then divided by 100.

Question 3.
If 65% of students in a class have bicycle, what per cent of the students do not have bicycles ?
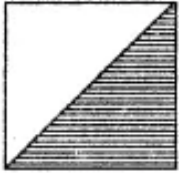(a) 35%
(b) 25%
(c) 45%
(d) None of these

Answer: (a) 35%
Given number is subtracted from 100.

Question 4.
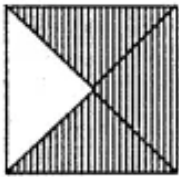What per cent of the adjoining figure is shaded ?

(a) 50%
(b) 40%
(c) 100%
(d) None of these

Answer: (a) 50%
As half of the given figure is shaded.

Question 5.
What per cent of the given figure is shaded ?

(a) 75%
(b) 50%
(c) 25%
(d) None of these

Answer: (a) 75%
As 3 parts out of 4 are shaded.

Question 6.
A survey of 40 children showed that 25% liked playing football. How many children liked playing football ?
(a) 10
(b) 20
(c) 30
(d) None of these

Answer: (a) 10
Total number of children are 40 out of these 25% means — no. of children like playing football, i.e., 10 out of 40.

Question 7.
Find 50% of 164.
(a) 72
(b) 62
(c) 82
(d) None of these

Answer: (c) 82
50% means half of the 164 or 50 is divided by 100 and by the result 164 is divided.

Question 8.
Rahul has saved Rs. 20 when a discount of 25% was given. What was the price of the sweater before the discount ?
(a) 70
(b) 60
(c) 80
(d) None of these

Answer: (c) 80
Rahul has saved Rs. 20 when price of sweater is reduced by 25%. This means that 25% reduction in price is the amount saved by Rahul. P = 4 x 20 = 80.

Question 9.
Convert the given fractional numbers $\frac{1}{8}$ into percentage.
(a) 12.5%
(b) 13.5%
(c) 14.5%
(d) None of these

Answer: (a) 12.5%
Given number is multiplied by 100 then solved.

Question 10.
Convert the given decimal fractions to per cent
(a) 6.5%
(b) 0.065%
(c) 65%
(d) None of these

Answer: (c) 65%
First decimal is removed and then multiplied by 100.

Question 11.
Find 75% of 1 kg.
(a) 750 g
(b) 75 g
(c) .750 g
(d) None of these

Answer: (a) 750 g
1 kg is converted into grams then multiplied by 75 and then divided by 100.

Question 12.
Find the whole quantity if 5% of it is 600.
(a) 1200
(b) 120
(c) 12000
(d) None of these

Answer: (c) 12000
Six is multiplied by 100 and the product is divided by 5.

Question 13.
Gardening shares are bought for Rs. 250 and sold for Rs. 325. What is the profit ?
(a) Rs. 75
(b) Rs. 50
(c) Rs. 25
(d) None of these

Answer: (a) Rs. 75
Profit = S.P. – C.P.

Question 14.
Find loss if CP is 250 and SP is Rs. 150.
(a) Rs. 50
(b) Rs. 100
(c) Rs. 15
(d) None of these

Answer: (b) Rs. 100
Loss = C.P. – S.P.

Question 15.
Find interest if Principal = Rs. 1200, rate of interest = 12% p.a. and Time 1 year.
(a) Rs. 144
(b) Rs. 244
(c) Rs. 344
(d) None of these

Answer: (a) Rs. 144
Interest = $\frac{P \times T \times R}{100}$

Question 16.
If Meena gives an interest of Rs. 45 for one year at 9% rate p.a. What is the sum she has borrowed ?
(a) Rs. 400
(b) Rs. 300
(c) Rs. 500
(d) None of these

Answer: (c) Rs. 500
Principal = $\frac{I \times 100}{R \times T}$

Question 17.
To compare two quantities the units must be :
(a) same
(b) different
(c) None of these

Answer: (a) same
Comparision can be done of only same quantities.

Question 18.
Find the ratio of 3 km to 300 m.
(a) 1 : 100
(b) 10 : 1
(c) 1:1
(d) None of these

Answer: (b) 10 : 1
First convert both distances to the same unit. Then compare them.

Question 19.
Are the ratio 1 : 2 and 2 : 3 equivalent ?
(a) Equivalent
(b) Not equivalent
(c) None of these

Answer: (b) Not equivalent
After making the denominator equal the numerators are different.

Question 20.
6 bowls cost Rs. 90. What would be the cost of 10 such bowls ?
(a) Rs. 100
(b) Rs. 200
(c) Rs. 150
(d) None of these

Answer: (b) Rs. 200
By unit method cost of 10 bowls is calculated.

Question 21.
The car that I own can go 150 km with 25 litres of petrol. How far can it go with 30 litres of petrol ?
(a) 180 km
(b) 200 km
(c) 150 cm
(d) None of these

Answer: (a) 180 km
By unit method distance is calculated.

Question 22.
Find the ratio of Rs. 5 to 50 Paise.
(a) 10 : 1
(b) 100 : 1
(c) 1:1
(d) None of these

Answer: (a) 10 : 1
Rs. 5 means 500 paise, so 500 paise ratio to 50 paise is 10 : 1.

Question 23.
Find the ratio of 15 kg. to 210 g.
(a) 50 : 7
(b) 5 : 7
(c) 500 : 7
(d) None of these

Answer: (c) 500 : 7
15 kg in grams are 15000 grams. Ratio of 15000 grams to 210
grams is 500 : 7.

Question 24.
Find the ratio of 9 m to 27 cm.
(a) 10 : 3
(b) 100 : 3
(c) 1000 : 3
(d) None of these

Answer: (b) 100 : 3
9 metre in cms are 900 cm, ratio of 900 cm to 27 is 100 : 3.

Question 25.
Find the ratio of 30 days to 36 hrs.
(a) 20 : 1
(b) 200 : 1
(c) 2 : 1
(d) None of these

Answer: (a) 20 : 1
There are 720 hours in 30 days. Therefore ratio of 720 hr. and 36 hr. becomes 20 : 1.

Question 26.
Which is better for comparison in the atmosphere : 1 g of air contains :
(a) 0.78 g nitrogen
(b) 0.21 g oxygen
(c) 0.01 g other gases
(d) None of these

Answer: (a) 0.78g nitrogen
As in one gram of air, nitrogen is maximum.

Question 27.
Write $\frac{1}{3}$% as per cent
(a) $33\frac{1}{3}$%
(b) $30\frac{1}{3}$%
(c) $3\frac{1}{3}$%
(d) None of these

Answer: (a) $33\frac{1}{3}$%
Number is mulitplied by 100 and then converted into proper fraction.

Question 28.
Out of 25 children in a class, 15 are girls. What is the percentage of girls?
(a) 50%
(b) 40%
(c) 60%
(d) None of these

Answer: (c) 60%
15 is multiplied by 100 and product is divided by 25.

Question 29.
Convert $\frac{5}{4}$ to per cent.
(a) 125%
(b) 120%
(c) 100%
(d) None of these

Answer: (a) 125%
5 is multiplied by 100 and product is divided by 4. .

Question 30.
Convert 0.75 into per cent.
(a) 75%
(b) 65%
(c) 55%
(d) None of these

Answer: (a) 75%
Given number is multiplied by 100 and then divided by 100.

Question 31.
There are 25 radios, 16 of them are out of order. What percent of radios are out of order?
(a) 64%
(b) 75%
(c) 50%
(d) None of these

Answer: (a) 64%

Question 32.
A school team won 6 games this year against 4 games won last year. What is the percent increase?
(a) 10%
(b) 25%
(c) 75%
(d) 50%

Answer: (d) 50%

Question 33.
Which is the greatest?
(a) $\frac{-5}{11}$
(b) $\frac{5}{-12}$
(c) $\frac{-5}{17}$
(d) $\frac{-5}{13}$

Answer: (c) $\frac{-5}{17}$

Question 34.
What will be 5% to fractions in simplest form?
(a) $\frac{1}{30}$
(b) $\frac{1}{10}$
(c) $\frac{2}{15}$
(d) $\frac{1}{20}$

Answer: (d) $\frac{1}{20}$

Question 35.
Rahul bought a sweater and saved Rs 20 when a discount of 25% was given. What was the price of the sweater before the discount?
(a) Rs 80
(b) Rs 40
(c) Rs 60
(d) Rs 100

Answer: (a) Rs 80

Question 36.
Find the ratio of 15 kg to 210 g
(a) 750:11
(b) 500:7
(c) 7:500
(d) 9:250

Answer: (b) 500:7

Question 37.
Out of 32 students, 8 are absent. What percent of the students are present?
(a) 50%
(b) 10%
(c) 25%
(d) 75%

Answer: (d) 75%

Question 38.
The ratio of 90 cm to 1.5 m is
(a) It is 5:3
(b) It is 3:2
(c) It is 3:5
(d) None of these

Answer: (c) It is 3:5

Question 39.
The ratio of 6 kg to 400 g is
(a) 10 : 1

(b) 15 : 1
(c) 12 : 1
(d) 6 : 1

Answer: (b) 15 : 1

Question 40.
What is the difference between the greatest and least numbers of $\frac{5}{9}$, $\frac{1}{9}$ and $\frac{11}{9}$?
(a) $\frac{2}{9}$
(b) $\frac{4}{9}$
(c) $\frac{10}{9}$
(d) $\frac{2}{3}$

Answer: (c) $\frac{10}{9}$

Question 41.
What type of a number is $\frac{-3}{0}$?
(a) A positive rational number.
(b) A negative rational number.
(c) Either a positive or a negative rational number.
(d) Neither a positive nor a negative rational number.

Answer: (d) Neither a positive nor a negative rational number.

Question 42.
Find the ratio of Speed of a cycle 15 km per hour to the speed of scooter 30 km per hour.
(a) It is 2:1
(b) It is 1:3
(c) It is 1:2
(d) It is 3:1

Answer: (c) It is 1:2

Question 43.
A picnic is being planned in a school for Class VII. Girls are 60% of the total number of students and are 18 in number. The ratio of the number of girls to the number of boys in the class is
(a) It is 2:3
(b) It is 3:1

(c) It is 3:2
(d) None of these

Answer: (c) It is 3:2

Question 44.
The car that I own can go 150 km with 25 litres of petrol. How far can it go with 30 litres of petrol?
(a) 180 km
(b) 200 km
(c) 210 km
(d) None of these

Answer: (a) 180 km

Question 45.
Convert $\frac{1}{8}$ to percent
(a) 125%
(b) 12.5%
(c) 7.5%
(d) 28%

Answer: (b) 12.5%

Question 46.
Find the ratio of 3 km to 300 m.
(a) It is 10:1
(b) It is 1:5
(c) It is 1:10
(d) None of these

Answer: (a) It is 10:1

Question 47.
A survey of 40 children showed that 25% liked playing football. How many children not liked playing football?
(a) 10
(b) 30
(c) 5
(d) 20

Answer: (b) 30

Match the following:

Question 1.

1. 1%	a. 21%
2. 0.21	b. 125%
3. $\frac{5}{4}$	c. 9%
4. .09	d. .01

Answer:

1. 1%	d. .01
2. 0.21	a. 21%
3. $\frac{5}{4}$	b. 125%
4. .09	c. 9%

Question 2.

1. 1%	a. $\frac{1}{10}$
2. 10%	b. $\frac{1}{4}$
3. 25%	c. $\frac{1}{2}$
4. 50%	d. $\frac{1}{100}$

Answer:

1. 1%	d. $\frac{1}{100}$
2. 10%	a. $\frac{1}{10}$
3. 25%	b. $\frac{1}{4}$
4. 50%	c. $\frac{1}{2}$

Question 3.

1.	a. 25%
2.	b. 50%
3.	c. 75%
4.	d. 100%

Answer:

1.	b. 50%
2.	a. 25%
3.	d. 100%
4.	c. 75%

Fill in the blanks:

1. To compare two quantities, the units must be the ………….

Answer: same

2. In the ratio a : b, the quantities a and b are called ………….

Answer: terms

3. An equality of 2 ratios is called ………………

Answer: proportion

4. More the number of articles, more is the ………….

Answer: value

5. …………….. the number of articles, less is the value.

Answer: less

6. Per cent (%) means out of ……………

Answer: hundred

7. The money paid to buy an item is called its …………..

Answer: cost price

8. The money received by someone on selling an article is called …………. price

Answer: selling

9. When S.P. > C.P. then there is ………….

Answer: profit

10. When C.P. > S.P. then there is …………..

Answer: loss

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11. The money borrowed or lend is called ……………

Answer: principal

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12. The additional money paid by the borrower to the lender after a specific period of time is called …………

Answer: interest

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13. The interest paid yearly or per annum on every Rs. 100 is called the per cent per anuum ……………

Answer: rate

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14. Profit or loss are calculated on the basis of the ……………..

Answer: cost price

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15. An equality of 2 ratios is called ……………

Answer: proportion