

## Ratio, proportion and unitary method

### Section A – 1 mark

- The ratio of 13 weeks to 1 year in simplest form is:  
a) 13 : 1                      b) 13 : 365                      c) 1 : 4                      d) 13:12
- Comparing two quantities by division is called  
a) Ratio                      b) Proportion                      c) Percentage                      d) Unitary method
- The ratio of 2L to 600ml is  
a) 1:300                      b) 1:30                      c) 3:10                      d) 10:3
- The ratio of 35 days to 2 weeks in simplest form is  
a) 35:7                      b) 35:14                      c) 5:2                      d) 5:4
- The ratio of the letter 'E' in the word "GEOMETRY" to the total letters in the word is  
a) 1 : 4                      b) 3 : 8                      c) 2 : 5                      d) none of these
- The ratio of even numbers to odd numbers in a set of natural numbers from 1 to 25 is  
a) 13:12                      b) 12:13                      c) 1:25                      d) 11:13

### Section B – 2 marks

- Find the ratio of 3kg to 250g
- Are 20, 10, 10, 5 in proportion?
- Out of 32 m long cloth if 24 m were used .Find the ratio of cloth used to total cloth.
- There are 50 students in a class. If 24 of them are boys, find the ratio of boys to girls.
- Check whether 48, 36, 27 are in continued proportion.
- Fill in the box so that 33, 132, , 120 are in proportion
- Are the following numbers in proportion ? 63, 55, 32, 72
- Fill in the box so that the numbers are in proportion 24, 18, , 96
- Are the numbers 3, 9 and 27 in continued proportion ? Justify
- Check whether 20, 10 and 5 are in continued proportion.

11. Fill in the box so that 21, 27, 14,  are in proportion.

**Section C – 3 marks**

1. The cost of 18 kg sugar is Rs216 .Find the cost of 1 quintal sugar.
2. Arun earns Rs. 3, 90,000 per year. Find his earnings for 25 weeks
3. Cost of one dozen bananas is Rs. 21. Find the cost of one score bananas?
4. In a dictation test of 20 words, Rohan spelled 18 words correctly. Find the ratio
  - i) Total words to wrongly spell words
  - ii) Correctly spell words to wrongly spell words
5. Arun earns Rs.3,90,000 per year. Find his earnings for 25 weeks.
6. Sahil ran a distance of 1.5 km. and his younger brother could run only 500 m. Express the distances as a ratio.
7. A bag contains 5 kg of rice, 1500 gm have been taken out for cooking. What is the ratio of the amount taken out to the amount left in the bag ?

**Section D – 4 marks**

1. A worker earns Rs 18,000 in 15 months.
  - a) How much will the worker earn in 7 months.
  - b) In how many months will he earn Rs36,000?
2. Out 30 meters long cloth, 24 meters were used for making 8 frocks. Find the ratio of
  - a) Total cloth and cloth used.
  - b) Remaining cloth and cloth used.
3. A factory produced 57,900 screws in the month of April 2002 .
  - a) How many screws did the factory produced in 8 days?
  - b) In how many days did the factory produce 34,740 screws?
4. Mrs. Sareen earns Rs. 2, 50, 000 every year and pays Rs. 24,000 as income tax. Find the ratio of
  - a) Income tax to Income
  - b) Income to Income tax
5. A car travels a distance of 550 km in 5 hours
  - a) What distance will the car cover in 7 hours?
  - b) How many hours are needed to travel a distance of 3080 km if the car travels in uniform speed ?

6. The weight of 72 books is 9 kg.

a) Find the weight of 80 such books.

b) How many books will weight 6 kg.

7. What is the ratio of the

a) Number of even numbers to odd numbers from the set of natural numbers from 30 to 50 ?

b) Prime numbers to composite numbers from the set of natural numbers from 1 to 20 ?

8. A car travels a distance of 550 km in 5 hours.

a) What distance will the car cover in 7 hours ?

b) How many hours are needed to travel a distance of 3080 km, if the car travels in uniform speed ?