



## STANDARD 7<sup>TH</sup>: CHAPTER 5

### Operation Rational Numbers

#### Q.1 Choose the correct alternative.

- Which of the following numbers is a rational number?
  - $\sqrt{2}$
  - $\pi$
  - $\frac{3}{4}$
  - $e$
- What is the sum of  $\frac{2}{3}$  and  $-\frac{5}{6}$ ?
  - $-\frac{2}{6}$
  - $-\frac{1}{6}$
  - $\frac{3}{6}$
  - $\frac{4}{6}$
- Simplify  $\frac{7}{12} \times \frac{28}{3} - \frac{7}{90} \times \frac{5}{13} + \frac{2}{13} \times 169$ 
  - $\frac{2103}{75}$
  - $\frac{2005}{78}$
  - $\frac{2105}{78}$
  - $\frac{2000}{78}$
- Express in standard form:  $-\frac{3426}{366}$ 
  - $\frac{1524}{51}$
  - $\frac{571}{61}$
  - $\frac{1713}{183}$
  - $\frac{571}{65}$
- By what rational number should  $-\frac{8}{65}$  be multiplied to get  $\frac{5}{26}$ ?
  - $-\frac{26}{15}$
  - $-\frac{25}{14}$
  - $-\frac{25}{16}$
  - $-\frac{24}{25}$

6. Which of the following is rational Number between 2 and 3?
- a.  $\frac{8}{3}$
  - b.  $\frac{16}{3}$
  - c.  $\frac{11}{3}$
  - d.  $\frac{9}{2}$
7. How many pieces each of length  $3\frac{3}{4}$ m can be cut from a rope of 60m?
- a. 15
  - b. 20
  - c. 14
  - d. 16
8. Shraavan earns Rs.16000 per month. He spends  $\frac{1}{4}$  of his income on food;  $\frac{3}{10}$  of the remainder on house rent and  $\frac{5}{21}$  of the remainder on the education of children. How much money is still left with him?
- a. Rs. 6400
  - b. Rs. 5000
  - c. Rs. 3400
  - d. Rs. 4500
9. The product of two rational numbers is  $\frac{48}{5}$ . If one of the rational numbers is  $\frac{66}{7}$ , find the other rational number.
- a.  $\frac{54}{55}$
  - b.  $\frac{52}{51}$
  - c.  $\frac{53}{54}$
  - d.  $\frac{56}{55}$
10. A cord of length  $14\frac{3}{2}$  m has been cut into 26 pieces of equal length. What is the length of each piece?
- a.  $\frac{4}{11}$
  - b.  $\frac{55}{11}$
  - c.  $\frac{11}{4}$
  - d.  $\frac{2}{11}$

## Q.2. Solve.

1. Find the area of a rectangular park which is  $18\frac{3}{5}$  m long and  $5\frac{0}{3}$  m broad.
2. A truck moves at an Average Speed of  $18\frac{0}{4}$  Km/hr. How much distance will it cover in  $12\frac{3}{3}$  hrs?
3. Area of a room is  $21\frac{4}{2}$  m<sup>2</sup>. If the breadth is  $8\frac{3}{4}$ m what is its length?
4. A teacher wants to give pizza to her students and each student can eat  $\frac{1}{4}$  of a pizza. If there are 25 students in her class, how many pizzas does she need?
5. Pipe A can fill a tank in 10 minutes and pipe B can fill the same tank in 8 minutes. How long will it take to fill the tank, if both the pipes are opened together?
6. What is reciprocal of  $\frac{2}{3} \div \frac{1}{3} - \frac{1}{2} \times \frac{1}{2}$ ?
7. John bought 25 kg of Rice and he used  $1\frac{3}{4}$  kg on the first day,  $4\frac{1}{2}$  kg on the second day. Find the remaining quantity of rice left.
8. Write the following numbers in ascending order:  $-\frac{3}{7}$ ,  $-\frac{3}{2}$ ,  $-\frac{3}{4}$
9. Find any 5 rationales between 3 and 4.
10. An airplane covers 1020 km in an hour. How much distance will it cover in  $25\frac{5}{6}$  hours?