

**BARODA HIGH SCHOOL, ONGC (Afternoon Shift)****Primary Section****UT- I Examination: 2025-26****Subject: - MATHS****Date: 05/08/25****Std - VIII****Marks: 25****Q.1(A) Choose the correct option:****(2)**

- i) The reciprocal of a negative rational number is:  
a) Positive      b) Negative      c) Zero      d) Cannot be determined
  
- ii) Which of the following is a solution of the equation  $2x + 3 = 11$ ?  
a) 3      b) 4      c) 5      d) 2
  
- iii) A rational number is said to be in standard form if:  
a) Its denominator is 1  
b) It cannot be simplified  
c) Its numerator and denominator have no common factors other than 1  
d) Both a and c
  
- iv) Which of the following is not a rational number?  
a) 0      b) 7      c)  $-3/4$       d)  $7/0$

**(B) Fill in the blanks.****(3)**

- i) \_\_\_\_\_ is called the additive identity for integers and whole numbers as well.
  
- ii) Rational numbers are not closed under \_\_\_\_\_ operation.
  
- iii) The sum of any rational number and \_\_\_\_\_ is always the same rational number.
  
- iv) A rational number which has no reciprocal is \_\_\_\_\_.
  
- v)  $\frac{x}{2} - 1 = 5$ , then  $x =$  \_\_\_\_\_.
  
- vi) In the equation  $2x - 7 = 3$ , the constant term on the LHS is \_\_\_\_\_.

**(C) State Whether TRUE or FALSE.****(3)**

- i) Transposing a term changes its sign.
  
- ii)  $-\frac{4}{11} \times \frac{4}{11} = (-1)$
  
- iii) The product of two rational numbers is always a rational number.
  
- iv) Addition is commutative for rational numbers.
  
- v) Solution of  $x + 1 = 18$  is 17.

vi)  $2xy + 5$  is an expression with one variable.

(D) Match the following.

(2)

Column I	Column II
I. $a \div 0$	a) Expression
II. $a(b + c) = ab + ac$	b) Equation
III. $2x - 3$	c) Distributive property
IV. $2x - 3 = 9$	d) Not defined

Q.2. (A) Solve:

(4)

i) Find:  $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$

ii) Find using distributivity:  $\left\{ \frac{7}{5} \times \left(\frac{-3}{5}\right) \right\} + \left\{ \frac{7}{5} \times \frac{5}{12} \right\}$

(B) Solve the linear equation:

(6)

(i)  $m - \frac{(m-1)}{2} = 1 - \frac{(m-2)}{3}$

(ii)  $3(5z - 7) - 2(9z - 11) = 4(8z - 13) - 17$

Q.3. Do as directed:

i) Simplify the following (using appropriate properties of the rational number and mention the name of properties used): (2)

$$\left( \frac{1}{2} \times \frac{13}{10} \right) + \left( \frac{1}{2} \times \frac{7}{10} \right)$$

ii) Solve the following linear equations. (1)

$$\frac{x-5}{3} = \frac{x-3}{5}$$

(iii) Verify the associative property of addition for rational numbers using (2)

$1/2, 1/3$ , and  $1/4$ .