FORMATIVE ASSESSMENT - FIRST MID TERM

MATHEMATICS

Max Marks: 50

Std - VIII

Time: 2 Hrs

Name of the School:	**Name of the Student:**
Place:	**Roll No.:**

I. Choose the correct answers: **5 × 1 = 5**

1. The collection of numbers ….. –3, –2, –1, 0, 1, 2, 3…… is called ____
   (a) Natural numbers b) Integers c) Rational numbers
2. The reciprocal of $\left(\frac{1}{7}\right)$
   (a) 7 (b) 1 (c) $\frac{1}{7}$
3. _____ does not have a reciprocal.
   (a) –1 (b) 0 (c) 1
4. The additive inverse of –1 is _____
   (a) 1 (b) 0 (c) $\frac{1}{2}$
5. The value of $\frac{1}{0}$ is _____
   (a) 1 (b) 0 (c) Does not exist

II. State whether the following are true or false: **5 × 1 = 5**

1. The sum of two negative numbers can be positive.
2. Every natural number is a rational number.
3. Every rational number is a natural number.
4. The multiplicative inverse of 1 is –1.
5. Subtraction of integers is commutative.

III. Do as directed: **10 × 2 = 20**

1. Write the following rational number in decimal form up to 3 decimal places.
   (a) $\frac{5}{7}$ (b) $\frac{3}{11}$
2. Convert the following decimals into rational form:
   (a) 4.479 (b) 19.09
3. Find the missing numbers. Write your answers in the standard form.
   (a) $\frac{\square}{\square} + \frac{-3}{2} = \frac{5}{8}$ (b) $\frac{7}{5} - \frac{\square}{\square} = \frac{1}{2}$
4. Multiply. Express your answers in the standard form.
   (a) $\frac{3}{-4} \times \frac{-8}{9} = \frac{\square}{\square}$ (b) $\frac{4}{3} \times \frac{5}{-6} = \frac{\square}{\square}$

5. Find the value of

(a) $\frac{3}{4} \div \frac{-6}{7}$ (b) $\frac{-19}{13} \div \left(\frac{-38}{39}\right)$

6. Find the value of $\frac{-4}{5} \times 3\frac{4}{5} \times 2\frac{1}{2}$

7. Convert each of the following recurring decimals into fractions.

(a) $\overline{0.733}$ (b) $0.47\overline{123}$

8. Shyam and Sheena collect coins. Shyam says he has coins from 75 countries out of 99 Countries he wanted to collect. Sheena says, I have only half of what you have. Calculate the number of countries from which Sheena has collected coins.

9. Which of the two rational numbers $\frac{-5}{8}$ and $\frac{3}{-4}$ is greater?

10. If $\frac{3}{4}$ of a box of apples weighs 3 *kg* and 225 *gm*, how much does a full box of apples weigh?

IV. Answer the following: (any 2) **$2 \times 5 = 10$**

1. Ria was helping her mother fill up water in a large tub. First she poured $3\frac{1}{3}$ buckets of water and then another $2\frac{1}{4}$ buckets of water. If the capacity of the bucket is 5 litres, how many litres of water did Ria pour?

2. Solve using distributivity.

(a) $\left\{\frac{2}{5} \times \left(\frac{-3}{12}\right)\right\} + \left\{\frac{2}{5} \times \frac{5}{12}\right\} =$ (b) $\left\{\frac{7}{16} \times \frac{4}{12}\right\} + \left\{\frac{7}{16} \times \frac{-3}{9}\right\} =$

3. If $p + 2q = 18$ and $pq = 40$, find $\frac{2}{p} + \frac{1}{q}$.

4. Find 'x' if $5\frac{x}{5} \times 3\frac{3}{4} = 21$.

V. Represent the following numbers on the number line. Represent each number on different number line. **$5 \times 2 = 10$**

(a) $-\frac{5}{3}$ b) 0.25 c) $\frac{4}{7}$

d) $-\frac{3}{5}$ e) -0.6