

Mathematics — Ganita Manjari

Chapter 3 Test 1

The World of Numbers

Class IX | 2026-27

Time Allowed: 45 Minutes

Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. Choose one option in A; show working in B-D.
2. Show the main steps and give reasons where asked. Calculators are not allowed.
3. Give fractions in lowest terms. Use exact values unless a decimal is requested.

SECTION A

(5 questions $\times$ 1 mark = 5 marks)

1. Using the chapter's convention, the smallest natural number is:

- (A) 0
- (B) 1
- (C) -1
- (D) There is no smallest natural number

2. The value of $(-13) \times 0$ is:

- (A) -13
- (B) 13
- (C) 0
- (D) 1

3. For $\frac{p}{q}$ to represent a rational number, p and q must be integers and:

- (A) $p > q$
- (B) $p \neq 0$
- (C) $q > p$
- (D) $q \neq 0$

4. Which fraction has a terminating decimal expansion?

- (A) $\frac{7}{40}$
- (B) $\frac{2}{3}$
- (C) $\frac{5}{6}$
- (D) $\frac{3}{7}$

5. Which of the following is irrational?

- (A) $\sqrt{36}$
- (B) $\sqrt{11}$
- (C) 0.625
- (D) $\frac{-4}{9}$

SECTION B

(4 questions $\times$ 2 marks = 8 marks)

6. Calculate $-275 + 630 - 190$ and state whether the result is positive or negative.

7. Find the sum:

$$-\frac{5}{6} + \frac{7}{12}.$$

8. Evaluate:

$$|-\frac{9}{4}| - |\frac{5}{6}|.$$

9. Express 0.375 as a fraction in lowest terms.

SECTION C

(3 questions $\times$ 3 marks = 9 marks)

10. Write three distinct rational numbers strictly between $-\frac{1}{2}$ and $\frac{1}{4}$. Verify their order.

11. Prove that $\sqrt{2}$ is irrational.

12. Convert $0.272727 \dots$ into a fraction in lowest terms. The block 27 repeats indefinitely.

SECTION D

(1 application question $\times$ 3 marks = 3 marks)

13. The unit intervals are divided into four equal parts. Read the numbers at A and B. Find their distance and the number halfway between them.

