Chapter- 1

Chapter Name – Rational Numbers

WORK SHEET

01. A number of the form p/q is said to be a rational number, if

(a) p, q are integers   (b) p, q are integers and q≠0

(c) p, q are integers and p≠0   (d) p, q are integers and p≠0, also q≠0

02. Which of the following is not true?

(a) rational numbers are closed under addition

(b) rational numbers are closed under subtraction

(c) rational numbers are closed under multiplication

(d) rational numbers are closed under division

03. Zero (0) is

(a) the identity for addition of rational numbers

(b) the identity for subtraction of rational numbers

(c) the identity for multiplication of rational numbers

(d) the identity for division of rational numbers

04. One (1) is

(a) the identity for addition of rational numbers

(b) the identity for subtraction of rational numbers

(c) the identity for multiplication of rational numbers

(d) the identity for division of rational numbers

05. The additive inverse of $\dfrac{-7}{19}$ is :

(a) 7/19   (b) 19/7   (c) -19/7   (d) -7/19

06. Which of the following statements is false?

(a) Natural numbers are closed under addition

(b) Whole numbers are closed under addition

(c) Integers are closed under addition

(d) Rational numbers are not closed under addition.

07. Which of the following statements is false ?

(a) Natural numbers are closed under subtraction

(b) Whole numbers are not closed under subtraction

(c) Integers are closed under subtraction

(d) Rational numbers are closed under subtraction.

08. Which of the following statements is true ?

(a) Natural numbers are closed under multiplication

(b) Whole numbers are not closed under multiplication

(c) Integers are not closed under multiplication

(d) Rational numbers are not closed under multiplication.

09. 0 is not

(a) a natural number   (b) a whole number

(c) an integer   (d) a rational number.

10. a + b = b + a is called

(a) commutative law of addition   (b) associative law of addition

(c) distributive law of addition   (d) none of these.

11. Find the two rational numbers whose absolute value is 1/5

12. From a rope 40 m long, pieces of equal size are cut. If the length of one piece is 10/3 m,

find the number of such pieces.

13. $5\frac{1}{2}$m long rope is cut into 12 equal pieces. What is the length of each piece?

14. Write the following rational numbers in the descending order.

8/7, -9/8, -3/2, 0, 2/5

15. Find the sum of additive inverse and multiplicative inverse of 7.

16. Find the product of additive inverse and multiplicative inverse of -1/3.

17. The sum of the two rational numbers is -6. If one of them is −8/5, find the other.

18. Which rational number should be added to −7/8 to get 5/9 ?

19. Which rational number should be subtracted from −5/6 to get 4/9 ?

20. By what number should −8/13 be multiplied to get 16?

21. Divide the sum of 3/7 and −5/14 by −1/2.

22. Divide the sum of 5/8 and −11/12 by the difference of 3/7 and 5/14

23. Insert five rational numbers between 3/5 and 2/5

24. Insert six rational numbers between 5/6 and 8/9

25. Evaluate: 5/9+−7/6

✱✱✱