1. Which of the following is true?

(a) Every rational number is a fraction. (b) Every rational number is an integer.

(c) Every fraction is a rational number. (d) Zero is not a rational number.

2. Which of the following rational numbers is equivalent to $\frac{-3}{4}$?

(a) $\frac{-6}{4}$ (b) $\frac{-3}{8}$ (c) $\frac{-6}{24}$ (d) $\frac{-6}{8}$

3. Which of the following can be represented on the number line?

(a) Whole numbers (b) Integers (c) Rational numbers (d) All of these

4. The rational number $\frac{13}{-26}$ in standard form is

(a) $\frac{-1}{2}$ (b) $\frac{1}{2}$ (c) $\frac{-13}{26}$ (d) $\frac{26}{-13}$

5. Arrange in descending order: $\frac{2}{3}, \frac{-1}{6}, \frac{1}{6}$

(a) $\frac{-1}{6}, \frac{2}{3}, \frac{1}{6}$ (b) $\frac{1}{6}, \frac{-1}{6}, \frac{2}{3}$ (c) $\frac{2}{3}, \frac{1}{6}, \frac{-1}{6}$ (d) $\frac{1}{6}, \frac{2}{3}, \frac{-1}{6}$

6. Which of the following are rational numbers between $\frac{6}{7}$ and $\frac{-5}{7}$?

(a) $\frac{-5}{7}$ and $\frac{4}{7}$ (b) $\frac{-3}{7}$ and $\frac{6}{7}$ (c) $\frac{-6}{7}$ and $\frac{6}{7}$ (d) $\frac{-2}{7}$ and $\frac{2}{7}$

7. The sum of a rational number and its additive inverse is

(a) 0 (b) 1 (c) 2 (d) 3

8. What should be added to $\frac{-5}{8}$ to get $\frac{5}{9}$?

(a) $\frac{85}{13}$ (b) $\frac{13}{85}$ (c) $\frac{85}{72}$ (d) $\frac{72}{85}$

9. By what rational number should $\frac{-8}{15}$ be multiplied to get 24 ?

(a) 45 (b) –45 (c) $\frac{1}{45}$ (d) $\frac{-1}{45}$

10. What is the multiplicative inverse of $\frac{-2}{-17}$?

(a) $4\frac{11}{3}$ (b) $6\frac{1}{2}$ (c) $8\frac{1}{2}$ (d) $\frac{10}{85}$

11. Multiplicative inverse of $\frac{-3}{7}$ is

(a) $\frac{7}{3}$ (b) $\frac{-7}{3}$ (c) $\frac{-10}{7}$ (d) $\frac{7}{-10}$

12. The product of a rational number and its reciprocal is always

(a) 0 (b) –1 (c) 1 (d) 2

13. Which of the following rational numbers is positive?

(a) $\frac{-8}{7}$ (b) $\frac{19}{-13}$ (c) $\frac{-3}{-4}$ (d) $\frac{-21}{13}$

14. Which of the following rational numbers is negative?

(a) $-\left(\frac{-3}{7}\right)$ (b) $\frac{-5}{-8}$ (c) $\frac{9}{8}$ (d) $\frac{3}{-7}$

15. Which of the following is equivalent to $\frac{4}{5}$?

(a) $\frac{5}{4}$ (b) $\frac{16}{25}$ (c) $\frac{16}{20}$ (d) $\frac{15}{25}$

16. How many rational numbers are there between two rational numbers?

(a) 1 (b) 0 (c) unlimited (d) 100

17. In the standard form of a rational number, the denominator is always a

(a) 0 (b) negative integer (c) positive integer (d) 1

18. Which is greater number in the following :

(a) $\frac{-1}{2}$ (b) 0 (c) $\frac{1}{2}$ (d) –2

19. Assertion $\frac{-5}{7}$ and $\frac{10}{16}$ are equivalent rational numbers.

Reason : If two rational numbers $\frac{a}{b}$ and $\frac{p}{q}$ are equivalent, then their standard forms are equal.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(c) If Assertion is true but Reason is false.
(d) If Assertion is false but reason is true.

20. Assertion – : $-\frac{2}{3}, \frac{4}{3}, \frac{-5}{9}, \frac{-1}{4}$, etc. are examples of rational numbers in their standard form.

Reason : The denominator of the rational number is always positive.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(c) If Assertion is true but Reason is false.
(d) If Assertion is false but reason is true.

21. Assertion : The standard form of $\frac{-45}{-105}$ is $\frac{3}{7}$.

Reason :Between two rational numbers, there exist finite number of rational numbers.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(c) If Assertion is true but Reason is false.
(d) If Assertion is false but reason is true.