

DAV PUBLIC SCHOOL POKHARIPUT BHUBANESWAR
PERIODIC ASSESSMENT-1 2021-22
CLASS-VII SUBJECT:-MATHEMATICS
TIME:1hr MAX MARKS:40

General Instructions:

- All questions are compulsory.
- The question paper contains 40 multiple choice questions carrying one mark each.
- Check your answers thoroughly before submitting.

Choose the correct answers from the given options. (1 x 40=40)

1. If $\frac{x}{56} = \frac{3}{-8}$ then the value of x is _____
 - a) 21
 - b)-21
 - c) 24
 - d) -24
2. Product of two rational numbers is $-\frac{4}{7}$. If one of the number is $-\frac{5}{21}$. The other number is _____
 - a) $\frac{12}{5}$
 - b)- $\frac{12}{5}$
 - c) $\frac{5}{12}$
 - d) $\frac{20}{147}$
3. How many rational numbers are there in between 2 rational numbers?

 - a) 0
 - b) 1
 - c) infinite
 - d) few

4. In the following rational numbers, x is a positive integer. Which of the following is smallest? _____

a) $\frac{x}{4}$

b) $\frac{x}{7}$

c) $\frac{x}{-8}$

d) $\frac{x}{-6}$

5. If $p = y \times t$ and $q = n \times t$, then the value of p/q is _____

a) y/n

b) n/y

c) $n \times y$

d) n/t

6. Expressing $\frac{3}{4}$ as a rational no. with denominator -100, we get

a) $75/-100$

b) $-75/100$

c) $-75/-100$

d) $-25/100$

7. Expressing $\frac{48}{-60}$ in the standard form, we get _____

a) $\frac{4}{-5}$

b) $\frac{-4}{5}$

c) $\frac{8}{-10}$

d) $\frac{8}{5}$

8. Which of the following statements are false?

i) Every rational number is a fraction.

ii) Every integer is a rational number.

iii) 0 is a rational number which is neither positive nor negative.

iv) $-7/3$ lies to the right of zero on number line

a) only iv

b) i and iii

c) only iii

d) i and iv

9. Between which two rational numbers $-8/3$ lies? _____
- a) -1 and -2
 - b) -2 and -3
 - c) 0 and -1
 - d) -3 and -4
10. The value of $1 + (1 + \frac{1}{6})^{-1}$ is _____
- a) $13/7$
 - b) $13/6$
 - c) $6/13$
 - d) $7/13$
11. The product of $-1/5$ and x is 1. The value of x is _____
- a) $1/5$
 - b) -5
 - c) 5
 - d) $3/15$
12. solve: $(-5/9 + 3/7 - 3/7 + 5/9) =$ _____
- a) 1
 - b) 0
 - c) $5/9$
 - d) $3/7$
13. Which of the following is true for X and Y as rational numbers? _____
- a) $X \times (Y \times Z) = (X \times Y) \times Z$
 - b) $(X + Y) + Z = X + (Y + Z)$
 - c) $X \times (Y - Z) = X \times Y - X \times Z$
 - d) all of the above
14. _____ and _____ are their own reciprocals .
- a) 0 and 1
 - b) 1 and -1

- c) 0 and 1
- d) none of these

15. The multiplicative inverse of $(\frac{-4}{3} \times \frac{-7}{-8})$ is _____

- a) $-\frac{7}{6}$
- b) $-\frac{6}{7}$
- c) $\frac{6}{7}$
- d) $\frac{7}{6}$

16. The product of $(1-\frac{1}{2}) (1-\frac{1}{3}) (1-\frac{1}{4}) \dots\dots\dots(1-\frac{1}{24})$ is _____

- a) $\frac{1}{24}$
- b) $-\frac{1}{24}$
- c) $\frac{1}{2}$
- d) $-\frac{1}{2}$

17. Subtract $\frac{-5}{9}$ from $\frac{-7}{3}$, we get _____

- a) $-\frac{16}{9}$
- b) $-\frac{26}{9}$
- c) $-\frac{12}{9}$
- d) $-\frac{2}{9}$

18. Identity element for subtraction of rational numbers is _____

- a) 1
- b) 0
- c) -1
- d) does not exist

19. The average of 0.56, 2.08, 4.44 is _____

- a) 3.26
- b) 2.63
- c) 3.62
- d) 2.36

20. The length of the line segment joining 5 and -5 is _____ units

- a) 5

- b) -10
- c) 10
- d) 0

21. Which of the following rational numbers is greatest?

- a) $|\frac{-3}{11}|$
- b) $|\frac{-9}{11}|$
- c) $|\frac{7}{11}|$
- d) $|\frac{6}{11}|$

22. Find the decimal representation of $\frac{-539}{80}$.

- a) - 6.7375
- b) - 0.6737
- c) - 67.37
- d) 6.7375

23. Express 25/12 as decimal.

- a) 2.08333...
- b) 20.8333...
- c) 2.08883
- d) 2.03888...

24. Which of the following have non terminating decimals?

- a) $\frac{39}{24}$
- b) $\frac{17}{90}$
- c) $\frac{27}{125}$
- d) $\frac{3}{5}$

25. simplify: $5.7 - 13.257 + 0.002$

- a) 7.55
- b) -7.555
- c) -5.777
- d) 5.775

26. If $25 \times 15 \times 4 = 1500$. Find the value of $2.5 \times 0.4 \times 0.0015$

- a) 0.00015
- b) 0.1500

- c) 0.0150
- d) 0.0015

27. Each side of polygon is 3.6cm in length. The perimeter of the polygon is 21.6 cm. How many sides does the polygon have?

- a) 7
- b) 5
- c) 6
- d) none

28. Which of the following is false?

- a) The product of two rational numbers can be an integer.
- b) $(x+y) / 2$ is a rational number between rational numbers x and y .
- c) $x \div 1 = x$ (x is any rational number)
- d) If $x < y$ then $x^{-1} < y^{-1}$, x and y are rational numbers.

29. Which of the following property is satisfied by subtraction of rational numbers ?

- a) closure property
- b) associative property
- c) distributive property
- d) none of the above are satisfied

30. Which of the following is not a rational number in between $-4/3$ and $-19/3$?

- a) $-2/3$
- b) -2
- c) $-8/3$
- d) $-10/3$

CASE STUDY: A person wants to decorate the house with beautiful pieces of cloth by cutting a long cloth into equal sized pieces . The total length of the cloth is 40 metres.



31. How many pieces can be cut if each piece measures $8/9$ m length?

- a) 40
- b) 42
- c) 45
- d) 54

32. If the whole cloth piece to be divided into 90 pieces, what would be the length of each piece?

- a) $\frac{4}{9}$ m
- b) $\frac{9}{4}$ m
- c) $\frac{3}{9}$ m
- d) $\frac{9}{3}$ m

CASE STUDY:A person wants to fence the rectangular field whose perimeter is 2.4 m less than $\frac{2}{5}$ of the perimeter of a square field. The perimeter of the square field is 40 m and the breadth of the rectangular field is $\frac{1}{3}$ of its length.



33. Find the perimeter of the rectangular field .

- a) 16.3 m
- b) 16.6 m
- c) 13.6 m
- d) 13.3 m

34. Find the length of the rectangular field.

- a) 7.1 m
- b) 5.5 m
- c) 4.5 m
- d) 5.1 m

35. Find the breadth of the rectangular field.

- a) 1.5 m
- b) 1.7 m
- c) 2.4 m
- d) 1.8 m

36. **ASSERTION(A):** $-1/2$ is in standard form but $2/-1$ is not in standard form .

REASON(R): p/q is a non zero rational number in standard form. It is necessary that rational number q/p will be in standard form.

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is the not the correct explanation of A
- c) A is true but R is false.
- d) A is false but R is true

37. **ASSERTION(A):** $(-5/6) \times 7/8 = 7/8 \times (-5/6)$

REASON(R): Commutative property holds true multiplication of rational numbers.

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is the not the correct explanation of A
- c) A is true but R is false.
- d) A is false but R is true

38. **ASSERTION(A):** $\{-(-5/6)\} = 5/6$

REASON(R): The negative of a negative rational number is not always a positive number.

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is the not the correct explanation of A
- c) A is true but R is false.
- d) A is false but R is true.

39. ASSERTION(A): $49/14$ doesnot have a terminating decimal representation.

REASON(R) : If we have only 2 and 5 as prime factors of denominator of rational number in lowest term, it will have terminating decimal representation.

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is the not the correct explanation of A
- c) A is true but R is false.
- d) A is false but R is true

40. ASSERTION(A): $(-1/2) < 3/4$

REASON(R) : Negative rational numbers are always less than positive rational numbers as they lie on the left of zero on the number line.

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true and R is the not the correct explanation of A
- c) A is true but R is false.
- d) A is false but R is true.

Answers:

1. B
2. A
3. C
4. D
5. A
6. C
7. B
8. D
9. B
- 10.A
- 11.B
- 12.B
- 13.D
- 14.D
- 15.B
- 16.A
- 17.A
- 18.D
- 19.D
- 20.C
- 21.B
- 22.A
- 23.A
- 24.B
- 25.B
- 26.D
- 27.C
- 28.D
- 29.A
- 30.A
- 31.C
- 32.A
- 33.C
- 34.D
- 35.B

36.C

37.A

38.C

39.D

40.A