

EVERWIN MATRIC.HR.SEC.SCHOOL
FORMATIVE ASSESSMENT-1

22.07.2019 [FN]
Time:1 Hour

MATHS-I

STD :VIII
Marks:75

I. Choose the correct option :

(15x1=15)

1.The rational number that is represented by 0.44 is

- a) $\frac{44}{10}$ b) $\frac{11}{25}$ c) $\frac{25}{11}$ d) $\frac{15}{18}$

2. The rational number that does not have a reciprocal is

- a)1 b)0 c)-1 d)none of these

3. The standard form of $\frac{58}{-78}$ is

- a) $\frac{29}{39}$ b) $\frac{-29}{39}$ c) $\frac{39}{49}$ d) $\frac{-39}{49}$

4. The multiplicative inverse of $2\frac{3}{5}$ is

- a) $\frac{13}{5}$ b) $\frac{5}{13}$ c) $\frac{3}{5}$ d) $\frac{5}{3}$

5.If $-3\frac{6}{-11} = \frac{6}{-11} \times x$, then x is

- a)-3 b)3 c)6 d)-6

6. $\frac{-7}{8} \times \frac{-23}{27} = \frac{-23}{27} \times \frac{-7}{8}$ illustrates _____ property of rational number.

- a)closure b)commutative c)associative d)distributive

7. The additive inverse of $\frac{11}{17}$ is

- a) $\frac{11}{17}$ b) $\frac{-11}{17}$ c) $\frac{17}{11}$ d) $\frac{-17}{11}$

8. Find the product of a^3 and $-4a^2b$

- a) $4a^5$ b) $-4ab$ c) $-4a^5b$ d) $4a^5b^2$

9. The missing terms in the product $6xyx$ _____ = $-12x^3y$

- a) $-2x^2$ b) $2x^2$ c) $-2xy^2$ d) $2xy^2$

10. The product of the terms $3x^2y$, $-3xy^2$, x^2y^2

- a) $3x^4y^6$ b) $3x^5y^4$ c) $9x^4y^4$ d) $-9x^5y^6$

11. $5x(4xy-4)$ =_____

- a) $9x^2y-4$ b) $9x^2y-10$ c) $20x^2y-20x$ d) $10x^2y-10$

12. Simplify: $27y^3 \div 3y$

- a) $9y^2$ b) $12y^3$ c) $15y^2$ d) $27y^2$

13. Find the missing term $\frac{18m^4(\quad)}{2m^3n^3} = \quad mn^5$

- a) $n^8, 9$ b) $n^4, 2$ c) $mn^4, 9$ d) $m^4, 5$

14. Find the product of $-3x, 7y$

- a) $21xy$ b) $-21xy$ c) $21x^2y$ d) $-21x^2y$

15. The number of terms in the expression $x+y+z - xyz$

- a)3 b)4 c)5 d)6

II. Answer any ten questions.

Question no. 28 is compulsory either a or b. (10x3=30)

16. Write four rational numbers equivalent to $\frac{-3}{5}$

17. Draw the number line and represent the rational number on it. (i) $\frac{9}{4}$

18. Compare the following pair of rational number $\frac{2}{3}$ and $\frac{4}{5}$

19. Verify the commutative property of multiplication of rational number $\frac{-10}{11}$, $\frac{-8}{33}$

20. Verify the closure property of addition of rational number $\frac{-5}{7}$ and $\frac{8}{9}$

21. Evaluate : $\frac{-7}{27} \times \frac{24}{35}$

22. If $l = 4pq^2$, $b = -3p^2q$, $h = 2p^3q^3$ then find the value of $l \times b \times h$

23. Expand $5x(2y-3)$

24. Find Adirai's percentage of marks who scored $25m^2n^2p$ out of $100m^2np$.

25. Find the product of $-2mn$, $(2m)^2$, $-3mn$

26. Divide: $x^3y^2 \div x^2y$

27. Say True or False:

(i) $8x^3y \div 4x^2 = 2xy$

(ii) $7ab^3 \div 14ab = 2b^2$

28. If the side of square carpet is $3x^2$ meter, find its area.

(or)

Find the product of $3x^2$ and $(-4x)$

III. Answer any six questions.

Question no.37 is compulsory either a or b. (6x5=30)

29. Verify the distributive property $a \times (b+c) = (a \times b) + (a \times c)$ for the rational numbers $a = -\frac{1}{2}$, $b = \frac{2}{3}$ and $c = \frac{-5}{6}$

30. Use commutative and distributive properties to simplify

$$\frac{4}{5} \times \frac{-3}{8} - \frac{-3}{8} \times \frac{1}{4} + \frac{19}{20}$$

31. Evaluate : $(\frac{13x-12}{18} - \frac{8x-3}{9}) + (\frac{-7}{-9} \div \frac{63}{36})$

32. A car moves at a uniform speed of $(x+30)$ km/hr find the distance covered by the car in $(y+2)$ hrs.

Hint : Distance = Speed \times time

33. Find the product of $(m^2 - n)(5m^2n^2 - m^2)$

34. Simplify $\frac{2}{5} + \frac{3}{2} \div \frac{3}{10}$ as a rational number and show that it is between 6 and 7

35. Match the following:

(i) $4y^2x - 3y$ -a) $20x^2y - 20x$

(ii) $-2xy(5x^2-3)$ -b) $5x^3 - 5xy^2 + 5x^2y$

(iii) $5x(x^2 - y^2 + xy)$ -c) $4x^2 - 9$

(iv) $(2x+3)(2x-3)$ -d) $-12y^3$

(v) $5x(4xy-4)$ -e) $-10x^3y + 6xy$

36. Find the missing term

(i) _____ $\times (-15m^2n^3p) = 45m^3n^3p^2$

(ii) $2y(5x^2y - \text{_____} + 3\text{_____}) = 10x^2y^2 - 2xy + 6y^3$

37.a) Divide $(5y^3 - 25y^2 + 8y)$ by $5y$

(or)

b) Multiply $(2x+5y)(3x-4y)$.