FORMATIVE ASSESSMENT - I

Class : IX   **Time: 1Hr**

Subject :MATHEMATICS   **Max Marks : 40**

SECTION 1

Multiple choice questions 10×1=10m

1) x^2-2x+1 is a polynomial in:

a. One Variable

b. Two Variables

c. Three variable

d. None of the above

2.) Can we write 0 in the form of p/q?

a. Yes

b. No

c. Cannot be explained

d. None of the above

3.) In between any two numbers, there are:

a. Only one rational number

b. Two rational numbers

c. Infinite rational numbers

d. No rational number

4.) Every rational number is:

a. Whole number

b. Natural number

c. Integer

d. Real number

5.) $\sqrt{9}$ is _____ number.

a. A rational

b. An irrational

c. Neither rational nor irrational

d. None of the above

6) $3\sqrt{6} + 4\sqrt{6}$ is equal to:

a. $6\sqrt{6}$

b. $7\sqrt{6}$

c. $4\sqrt{12}$

d. $7\sqrt{12}$

7) Which of the following is equal to x^3?

a. $x^6 - x^3$

b. $x^6.x^3$

c. x^6/x^3

d. $(x^6)^3$

8) The coefficient of x^2 in $3x^3+2x^2-x+1$ is:

a. 1

b. 2

c. 3

d. -1

9) $x - x^3$ is a _____ polynomial.

a. Linear

b. Quadratic

c. Cubic

d. None of the above

10) If the coordinates of a point are (0, -4), then it lies in:

a. X-axis

b. Y-axis

c. At origin

d. Between x-axis and y-axis

<center>SECTION -II   6×2=12m</center>

11.   Give an example of a monomial and a binomial having degrees as 82 and 99, respectively.

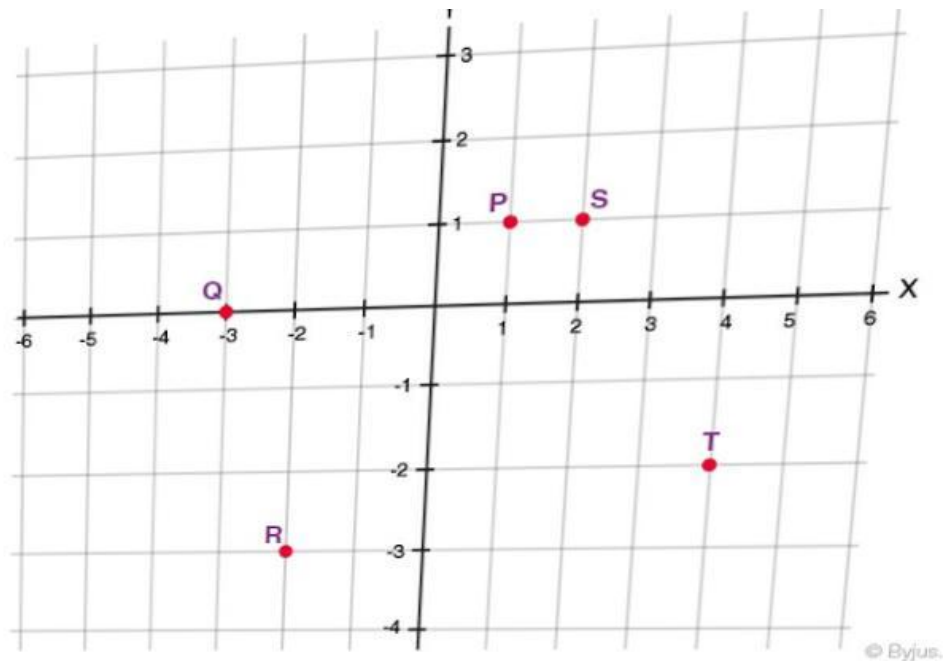12. Factorize $25x^2-36y^2$

13. Using the identities find 101^2

Or

Solve   (x+4)(x +10)

14. Divide $10\sqrt{15}$ by $5\sqrt{3}$.

15. Rationalize

$$\frac{1}{\sqrt{5} + \sqrt{2}}$$

16. Find the coordinates of P, Q ,R ,S ,T from the Given plane

==SECTION 3==   6×3=18m

17. Plot the following points and check whether they are collinear or not:

(1, 3), (– 1, – 1), (– 2, – 3)

18. Find the value of the polynomial $(x)=5x-4x^2+3$

(i) x = 0

(ii) x = – 1

(iii) x = 2

19. Factorize:

$12x^2-7x+1$

   Or

Rationalise

$$\frac{5+4\sqrt{3}}{4+5\sqrt{3}}$$

20. Represent $\sqrt{9.3}$ on the number line.

Or

Visualise 3.765 on the number line, using successive magnification.

21. Give possible expressions for the length and breadth of each of the following rectangles, in which their areas are given:

(i) Area : $25a^2-35a+12$

22. Write the answer to each of the following questions:

(i) What is the name of the horizontal and the vertical lines drawn to determine the position of any point in the Cartesian plane?

(ii) What is the name of each part of the plane formed by these two lines?

(iii) Write the name of the point where these two lines intersect