



JAYAM TUITION CENTRE.

VETTAVALAM. TIRUVANNAMALAI-DT.

STD: 12
SUB: MATHS
MARKS: 25

EXERCISE TEST - 9 (EX:3-5,6)

2 Mark Questions

5 X 2 = 10

1. Solve the following equation:

$$x^4 - 10x^3 + 26x^2 - 10x + 1 = 0.$$

2. Solve the equation $7x^3 - 43x^2 = 43x - 7$.

3. Solve : $8x^{\frac{3}{2n}} - 8x^{\frac{-3}{2n}} = 63$.

4. Show that the polynomial $9x^9 + 2x^5 - x^4 - 7x^2 + 2$ has at least six imaginary roots.

5. Find solution, if any, of the equation $2 \cos^2 x - 9 \cos x + 4 = 0$.

5 Mark Questions

3 X 5 = 15

6. Solve the equation $6x^4 - 5x^3 - 38x^2 - 5x + 6 = 0$ if it is known that $\frac{1}{3}$ is a solution.

7. Discuss the maximum possible number of positive and negative roots of the polynomial equation $9x^9 - 4x^8 + 4x^7 - 3x^6 + 2x^5 + x^3 + 7x^2 + 7x + 2 = 0$.

8. Find all real numbers satisfying $4^x - 3(2^{x+2}) + 2^5 = 0$.