## **CLASS TEST (SSIT POLYTECHNIC) 2023-2024(winter)**

## **SUBJECT- Engineering Mathematics-I**

## BRANCH-Civil Engg/ EE Engg/ EE(I&C) Engg/Mech Engg (1st sem)

## TIME:1 HOURS MAXIMUM MARKS:15

1. Answer all the question

 $2 \times 5 = 10$ 

- (a) What is the answer of  $\sqrt{-2} \times \sqrt{-3}$ ?
- (b) Solve by Cramers rule ,4x-y=9,5x+2y=8.
- (c) If  $\frac{1+tanA}{1-tanA} = \sqrt{3}$  Find the value of A.
- (d) Reduce 2x-3y+7=0 to the slop from and its intercept on y axis.
- (e) Construct a 2×3 matrix having elements given by aii = i+j.
- 2. Answer all question

5×1=5

(A) Solve the value of 
$$\begin{bmatrix} 1+x & 1 & 1 \\ 1 & 1+x & 1 \\ 1 & 1 & 1+x \end{bmatrix} = 0$$