## ST. FRANCIS INSTITUTE OF TECHNOLOGY MT. POINSUR, BORIVALI(W), MUMBAI.

## Department of Information Technology Assignment Test-I Syllabus

Class: SE INFT A & B Subject: Engineering Mathematics III

MAX Marks: 10

## Date of Exam & Time:

SIA1: 30<sup>th</sup> August,2023 09:00 am – 10:00 am SIA2: 30<sup>th</sup> August,2023 09:00 am – 10:00 am SIA3: 29<sup>th</sup> August,2023 03:00 pm – 04:00 pm

SIB1: 29<sup>th</sup> August,2023 09:00 am – 10:00 am SIB2: 1<sup>st</sup> September,2023 03:00 pm – 04:00 pm SIB3: 1<sup>st</sup> September,2023 03:00 pm – 04:00 pm

## **Module 4: Complex Variables**

- 4.1 Function f(z) of complex variable, limit, continuity and differentiability of f(z) analytic function, necessary and sufficient conditions for f(z) to be analytic (without proof).
- 4.2 Cauchy-Riemann equations in Cartesian coordinates (without proof).
- 4.3 Milne-Thomson method to determine analytic function f(z) when real part (u) or Imaginary part (v) or its combination (u + v or u-v) is given. (2hrs) 4.4 Harmonic function, Harmonic conjugate and orthogonal trajectories

Faculty In-charge, Ms. Grishalda Dsouza