# PRAJYOTI NIKETAN COLLEGE, PUDUKAD

## MATHEMATICS

## **BRIDGE COURSE (SYLLABUS)**

Total hours : 10

Duration : 2 weeks

### **Objective :**

To enable the students to acquire knowledge on basic mathematics

### Module 1

- Real, complex, vector valued functions
- Limits, derivatives rules of differentiation, Integration rules of integration
- Sequence limits, series
- Basics of Laplace Transforms

### Module 2

- Matrices rank and determinant
- Basics of vector calculus
- Complex numbers

#### **References :**

- 1. Calculus I (2/e) : Jerrold Marsden & Alan Weinstein
- 2. Advanced Engineering Mathematics(6/e) : Dennis G Zill Jones & Bartlett Learning
- 3. Advanced Engineering Mathematics(7/e) : Peter V O'Neil