

Name of Faculty: Mrs Anuradha
Subject :Maths
Session: March 2023-July 2023
Semester: 2nd

Week	Lesson Plan
1 st	Definition of Function: Concept of limits (Introduction only) and problems related to four standard limits only.
2 nd	Differentiation of $x^n, \sin x, \cos x, e^x$ by first principle.
3 rd	. Differentiation of sum, product and quotient of functions.
4 th	Differential Calculus Its Application:- Differentiation of trigonometric function, inverse trigonometric functions. Logarithmic differentiation, successive differentiation (up to 2 nd order)
5 th	Application of differential calculus in: (a) Rate measures (b) Maxima and minima.
6 th	Calculus Integral Integration as inverse operation of differentiation with simple examples.
7 th	Simple standard integrals and related problems, integration by Substitution method and integration by parts.
8 th	Evaluation of definite integrals with given limits. Evaluation of Using formulae with proof (m and n being positive integers only) using pre- existing mathematical models.
9 th	Application o integration ,Numerical Integration and Differential Equation Applications of integration: for evaluation of area under a curve and axes (Simple problems).
10 th	Numerical integration by Trapezoidal Rule and Simpson's $1/3^{\text{rd}}$ Rule using pre-existing mathematical models.
11 th	Differential Equations Definition order ,degree, Type of differential Equations ,Linearity, Formulation of ordinary differential equation (up to 1 st order),solution of ODE (1 st order) by variable separation method.
12 th	Solution of ODE (1 st order) by variable separation method.
13 th	Software Scilab software- Theoretical Introduction. Basic difference between MATLAB and Scilab software, Calculations with MATLAB or Scilab – (a) Representation of matrix (2x2 order), (b) Addition, Subtraction of matrices (2x2 order) in MATLAB or SciLab.
14 th	Calculations with MATLAB or Scilab – (a) Representation of matrix (2x2 order), Addition, Subtraction of matrices (2x2 order) in MATLAB or SciLab
15 th	1.1 Differential Calculus 2.1 Differential Calculus Its Application:-
16 th	3.1 Calculus Integral 4.1 Application o integration ,Numerical Integration and Differential Equation 5.3 Software