

DISCIPLINE : All Branches	SEMESTER: 3rd	NAME OF THE TEACHING FACULTY : Satyajit Pradhan
SUBJECT : ENGG. MATH- III	NO. OF DAYS/PER WEEK CLASS ALLOTTED:04	SEMESTER FROM DATE : 01/07/2024 TO DATE : 16/12/2024 NO. OF WEEKS : 15
WEEK :15	CLASS DAY :	THEORY TOPIC :
1 ST (Complex Numbers)	1 ST	Real and Imaginary numbers, Complex Numbers.
	2 ND	Conjugate complex numbers, Modulus and Amplitude of a complex number.
	3 RD	Geometrical representation of complex number, Properties of Complex Numbers.
	4 TH	Determination of three cube roots of unity and their properties.
2 nd (Complex Numbers) + (Matrices)	1 ST	De Moiré's theorem.
	2 nd	Solved problems.
	3 rd	Basic concepts of matrices and Operation
	4 th	Sub matrix and Minors and Rank of a matrix.
3 RD (Matrices)+ (Numerical Methods)	1 st	Elementary transformation and Row Reduction Echelon Matrix.
	2 nd	System of Linear Equations and their consistency and solutions.
	3 rd	Introduction and Rounding off; Synthetic division of polynomials, Different types of Equations and their solution.
	4 th	Method of Bisection for solving equations.
4 TH (Numerical Methods) + (Differential Equations)	1 st	Solving equation by Newton Rap son Method.
	2 nd	Formula deduced from Newton- Rap son .method and solving Numericals based on their formulas.
	3 rd	Introduction; order and degree and solution of 1 st order, 1 st degree Equation .Exact Equations and their solutions.
	4 th	Linear Equations and their solution. Rules for finding complementary function. Solving various numerical to get complementary function.

WEEK :	CLASS DAY :	THEORY TOPIC :
5 TH (Differential Equation)	1 ST	Rules for getting particular integer of the type of function e^{ax+b} and Numericals based on it.
	2 ND	Rules for getting P.I of the hyperbolic function $\sin(ax + b)$ or $\cos(ax + b)$ and solving numerical based on it.
	3 RD	Rules for getting P.I if the function is x^m ; $m > 0$ and solving numerical based on it.
	4 TH	Rules for finding P.I if the function is $e^{ax}V$, where V is the function of x(1 st shifting theorem).