

LESSON PLAN

Name of Assistant Professor: Mahitesh Ravi

Session: 2023-24

Class: R. N. 2nd Sem

Subject: Mathematics

Lesson Plan:

Week 1	→ Matrices, Elementary operations on matrices Rank of a matrix.
Week 2	→ Inverse of matrix, Linear dependence and independence of rows and columns of matrix
Week 3	→ Row, column rank, eigen value, eigen vectors
Week 4	→ Characteristic eq ⁿ , Minimal polynomial, Cayley-Hamilton th ^m Unitary & orthogonal matrices.
Week 5	→ Relations between the roots and coefficients of polynomial eq ⁿ
Week 6	→ Common roots & multiple roots + Practical problem
Week 7	→ Transformation of equations, Nature of the roots of an equation
Week 8	→ Descartes' rule of signs + Practical problem
Week 9	→ Solutions of cubic equations by Cardan's method
Week 10	→ Biquadratic equations and their solutions by Descartes's method
Week 11	→ Ferrari method + Practical problems
Week 12	→ Divisibility, Greatest common divisor (gcd)
Week 13	→ Least common multiple, Prime numbers + Fundamental th ^m of arithmetic, Practical problems
Week 14	→ Prime numbers. Linear congruences, Fermat's th ^m
Week 15	→ Euler's th ^m , Wilson's th ^m , Chinese remainder th ^m + Practical + Revision problem
Week 16	
Week 17	
Week 18	

Mahitesh.