

# Lesson Plane for B.A/BSc. Ist

Paper Algebra

Session - 2023-24

July week IV

Matrices, Definition of Matrix and its type  
its theorems and its question.

August →

week Ist

Symmetric matrix skew-symmetric matrix.  
Hermitian matrix, Skew-Hermitian matrix.

week IInd

do

week IIIrd

Theorem of symmetric, skew symmetric,  
Hermitian and skew Hermitian and its  
question and example.

week - IVth

Sub matrix, minors of a matrix, Rank of matrix  
and elementary operation on a matrix.

September

week - 1

do

week IInd

Linear dependent and independent of  
Row and column matrix its theorem and  
Example

week IIIrd

Application of matrices to system of linear  
equation (homogeneous and non homogeneous equation)  
both.

September

week - IV — Theorem on consistency of system of linear equation.

October

week - I — do — do —

week II<sup>nd</sup> — unitary and orthogonal matrix and its theorem and its Example and question.

week III<sup>rd</sup> — Relation between the roots and coefficient of general polynomial in one variable.

week IV<sup>th</sup> — do — do —

November

week - I) — solution of polynomial equation having condition on roots, common roots and multiplication roots

week II<sup>nd</sup> — Transformation of equation.

week III<sup>rd</sup> — Nature of roots of cubic equation and Cardan's method.

week IV<sup>th</sup> — Descartes' method and Ferrari's method on Biquadratic equation.

\* revision and unit test