



**SCHOOL OF APPLIED SCIENCE & HUMANITIES**  
**DEPARTMENT OF MATHEMATICS**

Subject: Linear Algebra

Subject Code : 25MT103

Sem. : I

Academic Year: 2025-2026

Section: 7

Regulation: R25

**T5 - Assignment 8**

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1. Define the following terms.
  - a. Elementary row operations
  - b. Row echelon form and Reduced Row echelon form
  - c. Conditions for consistency of linear systems  $Ax=b$
  - d. Eigenvalues and Eigenvectors
  - e. Vector space and Subspace
  - f. Linear dependence of Vectors
  - g. Span of Vectors
  - h. Bases and dimension of vector space
  - i. Inner product space
  - j. Norm of a vector
  - k. Orthonormal Vectors
  - l. Cauchy-Schwarz Inequality
  - m. Gram-Schmidt orthogonalization