



SCHOOL OF APPLIED SCIENCE & HUMANITIES
DEPARTMENT OF MATHEMATICS

Subject: Linear Algebra

Subject Code : 25MT103

Sem. : I

Academic Year: 2025-2026

Section: 14

Regulation: R25

T5 - Assignment 8

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