END SEM PORTION:

1. Chapters 4.1 and 4.2 - General Vector spaces and subspaces
2. Chapters 4.3,4.4 and 4.5 - Linear Independence, Basis and Dimension
3. Chapter 4.7 row space column space and null-space
4. Chapters 6.1 and 6.2 - Inner product space , Orthogonality and Projection
5. Chapters 6.3 and 6.4 - Orthonormal spaces, Gram Schmidt Process, QR-Decomposition and Best Approximations.
6. Chapters 8.1, 8.2 and 8.3 - Linear Transformation, Kernal, Range and Inverse Linear Transformation.
7. Chapters 8.4, 8.5 Matrices of general linear transformation, Similarity Transformation
8. Diagonalization and Jordan forms.