

**MTH 309 DISCREET MATHEMATICS: (4 Units) (L45:PO:T15)**

Groups and subgroups; Group Axioms, Permutation Group, Cosets, Graphs; Directed and undirected graphs, subgraphs, cycles, connectivity, Application (flow Charts) and state transition graphs; lattices and Boolean Algebra, Finite fields: Minipoly-nomials. Irreducible polynomials, polynomial roots, Application (error-correcting codes, sequences generators). **MTH -201, 202, 308**