SYLLABUS :-

Prerequisite: void

Groups, subgroups, cyclic groups, cosets, Lagrange theorem. Normal subgroup, quotient group, homomorphism, fundamental theorem of homomorphism, permutation group, Cayley's theorem, direct product of groups. Commutative ring with identity - Axioms, examples, integral domain, field, ideals, quotient ring, prime and maximal ideal, principal ideal domain, Euclidean domain, the field of quotients of an integral domain, polynomial ring over a field. Roots of polynomials, extension of fields, splitting fields.