

## **MTH 306. ABSTRACT ALGEBRA II: (3 Units) (L30: P0: T 15)**

### **Pre-requisite - MTH 203, 206**

Normal subgroups and quotient groups. Monomorphic isomorphism theorems. Cayley's theorems. Direct products. Groups of small order. Group acting on sets. Sylow theorems. Ideal and quotient rings. P.I.D. & U.F.D.'s euclidean rings. Irreducibility; Field extensions, degree of an extension, minimum polynomial. Algebraic and transcendental extensions. Straight edged and compass constructions.