

FMCC201 ALGEBRA – I (3-0-0)

Module-I :(10 Hours)

Preliminary Notations, Group Theory : Algebraic structures, Groups, Some Examples of Groups, Subgroups, A Counting Principle, Cosets, Normal Subgroups and Quotient Groups,

Module-II :(10 Hours)

Group Homomorphisms, Isomorphisms, Automorphisms, Permutation Groups.

Ring Theory : Definition & Example of Rings, Some Special Classes of Rings

Module-III :(10 Hours)

Field, Pigeon Hole Principle, Homomorphisms, Ideals, Quotient Rings., More Ideals and Quotient Rings, The Field of Quotients of an Integral Domain, Euclidean Rings, A particular Euclidean Ring.

Text Books :

1. Topics In Algebra, by I. N. Herstein, Wiley Eastern.
Ch. 1, Ch. 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.10, Ch. 3.1, 3.2, 3.3, 3.4

Reference Books :

1. Modern Algebra by A. R. Vasishtha, KrishnaPrakashanMandir, Meerut.
2. Topics in Algebra by P.N.Arora, Sultan Chand & Sons.