

MA-435 RINGS AND FIELDS

Definitions and basic concepts, homomorphisms, homomorphism theorems, polynomical rings, unique factorization domain, factorization theory, Euclidean domains, arithmetic in Euclidean domains, extension fields, algebraic and transcendental elements, simple extension, introduction to Galois theory.

RECOMMENDED BOOKS:

1. Fraleigh, J.A., A First Course in Abstract Algebra, Addison Wesley Publishing Company, 1982.
2. Herstein, I.N., Topics in Algebra, John Wiley & Sons 1975.
3. Lang, S., Algebra, Addison Wesley, 1965.
4. Hartley, B., and Hawkes, T.O., Ring, Modules and Linear Algebra, Chapman and Hall, 1980.