SX-S 324 2003-04 AB

M 305 – Universal Algebra I

UNIT I : Lattices - Definitions of Lattices - Isomorphisms of Lattices and sub lattices - Distributive and modular lattices-Complete lattices - Equivalence relations - algebraic Lattices - Closure operations.

UNIT II : Elements of Universal algebra - Definition and examples of algebras - Isomorphic algebra and sub algebras - Algebraic lattices and sub universes - The irredundant Basis theorem - Congruences and Quotient algebras - Homomorphisms - The homomorphism and isomorphism theorems.

UNIT III : Direct products - Factor congruences - Directly indecomposable algebras - sub direct products - Subdirectly irreducible algebras - Simple algebras - Class operators - Varieties.

UNIT IV : Terms - Term algebras - Free algebras - Identities and Free algebras - Birkhaff's Theorem - Malcov conditions - The Centre of an algebra.

Content and Extent as in the Book :

A course in Universal algebra - Stanley Burris, H.P. Sankappanavar, Springer - Verlag, Berlin.