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14

ANDHRA UNIVERSITY
DEPARTMENT OF MATHEMATICS
M.A/ M.Sc. MATHEMATICS - III SEMESTER

M-305 UNIVERSAL ALGEBRA - II

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 inde-composable algebras - Sub direct products - Subdirectly irreducible algebras - Simple algebras - Class operators - Varities.

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

Content and extent as in the book.

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