

DEVI AHILAYA VISHWAVIDYALAYA INDORE

M.Sc. Zoology
Session 2013-14

Semester I

85+15 CCE

Paper I - Biosystematics, Taxonomy and evolution

Unit I

. Definition and basic concepts of biosystematics taxonomy and classification.

- History of Classification

Trends in biosystematics : Chemotaxonomy cytotaxonomy and molecular taxonomy

Dimensions of speciation and taxonomic characters.

Species concepts : species category, different species concepts, subspecies

and other infra-specific categories.

Theories of biological classification: hierarchy of categories.

Unit II

- Taxonomic Characters . Different kinds.

- Origin of reproductive isolation, biological mechanism of genetic incompatibility.

- Taxonomic procedures: Taxonomic collections , preservation ,cureting, process of identification.

- Taxonomic keys,different types of keys, their merits and demerits.

- International code of Zoological Nomenclature (ICZN):

Operative principles, interpretation and application of important rules: Formation of Scientific names of various Taxa.

Unit III

- Taxonomic categories.

- Evaluation of biodiversity indices.

- Evaluation of Shannon . Weiner Index.

- Evaluation of Dominance Index.