

M.Sc. (Final) Examination, 2001
BOTANY
Paper-I
(Taxonomy, Morphology and Embryology of Angiosperms)

Time: Three Hours
Maximum Marks: 100

Attempt **five** questions in all,
selecting at least **two** questions from each section.
All questions carry equal marks.

SECTION-A

1. What is phylogeny? Give an account of one of the most phylogenetic system of classification studied by you. Discuss its merits.
2. Give brief account of the following:-
 - (a) Nomenclatural types
 - (b) Role of anatomy in taxonomy.
3. Give a cortical account of the range of floral variations and trends of evolution in centrospermales.
4. Give brief accounts of the following:-
 - (a) Gynoecium and its evolution in Orobanchaceae.
 - (b) Pappus and its morphological nature.
5. Write short notes on the following (any **four**)
 - (a) Insectivorous plants
 - (b) Inflorescence in gramineae
 - (c) Systematic position of Cuscuta
 - (d) Place of origin of Angiosperms
 - (e) Vesselless Angiosperms.

SECTION-B

6. Discuss the morphological nature of inferior ovary.
7. Write brief accounts on the following:
 - (a) Foliar stamens.
 - (b) Interrelationships of placentation types.
8. Discuss the nutritional relationship between the embryo, the endosperm and the ovular tissues immediately outside the endosperm.
9. Describe the several methods of apomictic reproduction in flowering plants and critically evaluate the role of apomixis in evolution.

10. Write short notes on the following (any **four**)
- (a) Fibre tracheid
 - (b) Tylosoid
 - (c) Storied cambium
 - (d) Abscission layer
 - (e) Rhytidome.