

Roll No. ....

(07/22-II)

5224

B.Sc. EXAMINATION

(Fourth Semester)

BOTANY

Paper I

Biology and Diversity of Seed Plants—II

*Time : Three Hours*

*Maximum Marks : 40*

**Note :** Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. Define the following : 1×8=8

- (a) Phylogeny
- (b) Holotype
- (c) Chemotaxonomy
- (d) Taxon
- (e) Archichlamydeae

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- (f) Gynostegium
- (g) Siliqua
- (h) Tepal.

### Unit I

- 2. Define inflorescence and describe various types of racemose inflorescences. 8
- 3. Give a concise account of fundamental components of taxonomy. 8
- 4. Write short notes on the following : 4+4
  - (a) Taxonomic ranks
  - (b) Taxonomic keys.
- 5. Write in brief on the following : 4+4
  - (a) Cytotaxonomy
  - (b) Rules of botanical nomenclature.

### Unit II

- 6. Enumerate salient features of Bentham and Hooker's system of classification giving its merits and demerits. 8

7. Give diagnostic features and economic importance of family Brassicaceae. 8

8. Write short notes on the following : 2+2+2+2

(a) Spirocyclic flowers of Ranunculaceae

(b) Gynoecium of Leguminosae

(c) Gynobasic style of Lamiaceae

(d) Floral formula of sunflower.

9. Write down diagnostic features and economic importance of family Poaceae. 8