(GENERAL COURSE)

Each Year :

There shall be one paper consisting of theory of 75 marks and practical carrying 25 marks, each of three hours duration.

1st Year Paper I (Group I—Cryptogame)

(Group II—Phanerogams)

The examiners are to set five questions from each of the two groups out of which the candidates will be required to answer five questions attempting at least two questions from each group.

GROUP—I CRYPTOGAMS

Structure reproduction diagnostic features and economic importance of algae, fungi and Lichens based on the types wherever mentioned.

1. Algae—Nostoc, Oedogonium, Chara, Voucheria, Sargassum and Batrachospermum.
2. Fungi—Albugo, Peziza, Puccinia.

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3. Lichens—General account and Economic importance.
4. Bryophytes Structure and life history of the following types.

   —Marchantia, Anthoceros and Sphagnum.
5. Pteridophytes—Selaginella, Equisetum and Marsilia.

GROUP—II PHANEROGAMS

1 Gymnosperm—Pinus-(Morphology, anatomy & reproduction).

2 Taxonomy of Angiosperms.

(i) Classification of angiosperms with reference to the system of Bentham and Hooker, Hutchinson.

(ii) Important rules of plant nomenclature.

(iii) An account of the diagnostic features and economic importance of the following families :

Ranunculaceae	Euphorbiaceae
Cucurbitaceae	Apocyanaceae
Acanthaceae	Lamiceae
Amaranthaceae	Cyperaceae and Poaceae

3 Anatomy

(i) Meristems

(ii) Initiation activity and function of cambium.

(iii) Anomalous secondary growth in Boerhaavia, Tinospora and Dracena.

(iv) Root-Stem transition.

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4 Embryology

(i) Development of anther, pollen, embryosac, fertilisation, endosperm & embryo.

(ii) An idea about experimental embryology.

Practical Full Marks—25

Time—3 hours

Groups : Cryptogams and Phanerogams

1 Morphology and structural details of Algae, Fungi, Bryophyta, Pteridophyta and Gymnosperms included in the syllabus and their temporary/permanent slide preparation. 7½

2 Description of Angiospermic plant belonging to the families prescribed in the syllabus. Identification upto the family level. 4

3 Study of the primary and secondary (both normal and abnormal) structures of roots and stems of angiospermic plants. 2½

4 To identify and comment upon forms included in paper I & II. (Six-spots). 6

5 Practical record. 5

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