

**BOTANY (GENERAL)****Paper I**

**Algae, Fungi, Microbiology, Bryophyta, Pteridophyta,  
Gymnosperm**

**Time - 3 hours**

**Full Marks - 75**

Ten questions to be set, five from each group. Candidates are required to answer five questions attempting at least two questions from each group.

**Group A**

- Algae** - Structure, reproduction and the history of the following members : *Volvox*, *Oedogonium*, *Ectocarpus*, *Batrachospermum*, *Anabaena*.
- Fungi** - Structure, reproduction and the history of the following members : *Synchytrium*, *Phytophthora*, *Peziza*, *Erysiphe*, *Ustilago*, *Puccinia*.
- Microbiology** - A brief knowledge of ultra structure and economic importance of Bacteria and Virus.

**Group B**

- Bryophyta** - Life history of *Marchantia*, *Anthoceros* and *Sphagnum*.
- Pteridophyta** - Life history of *Lycopodium*, *Equisetum* and *Marsilea*.
- Gymnosperm** - Life history of *Cycas* and *Pinus*.

**BOTANY (GENERAL)****Practical**

**Time - 3 hours**

**Full Marks - 25**

- Morphology and structural details of  
Algae - One, Fungi - One, Bryophyta - One  
Temporary slide preparation 9 marks
- Morphology, structure of the material and its permanent double stained slide preparation (either from pteridophyta or from Gymnosperm) 6 marks
- Identification and comment on the following five spots :  
Algae-One, Fungi-One, Bryophyta-One, Pteridophyta/ Gymnosperm  
- One, Embryology - One 5 marks
- Practical Records 5 marks