

## BOTANY (Paper I)

**Time Allowed : Three Hours**

**Maximum Marks : 300**

### QUESTION PAPER SPECIFIC INSTRUCTIONS

*(Please read each of the following instructions carefully before attempting questions)*

There are EIGHT questions divided in two Sections.

Candidate has to attempt FIVE questions in all.

Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.

The number of marks carried by a question/part is indicated against it.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

### SECTION 'A'

1. Answer any THREE of the following: (not more than 200 words each): 20×3=60
- (a) Describe the lysogenic life cycle in viruses.
  - (b) Classify algae according to V. J. Chapman. Give characters of each class.
  - (c) Discuss evolution of steles in Pteridophytes.
  - (d) Describe various types of Pathotoxins and their role in plant diseases.
2. With the help of suitable [?] describe the life cycle of *Aspergillus* and discuss the economic importance of this genus. 60
3. Give causal organism, symptoms and control measures of the following: 20×3=60
- (a) Ergot of Bajra
  - (b) Blast of Rice
  - (c) Stem gall of coriander
4. Write notes on: 20×3=60
- (a) Reproductive structure of Chara
  - (b) Vegetative reproduction in Bryophytes
  - (c) Totipotency

### SECTION 'B'

5. Answer any three of the following: (not more than 200 words each): 20×3=60
- (a) Importance of Cycadofilicales.
  - (b) Development of female gametophyte in Angiosperms.
  - (c) Anomalous secondary growth in *Dracaena*.
  - (d) Energy plantation and its importance.
6. Write an account of floral structures of the following families. Give botanical names of three important plant species belonging to each of the three families and specify their uses:

**20×3=60**

- (a) Asteraceae
- (b) Solanaceae
- (c) Asclepiadaceae

7. Describe the development of male gametophyte in Gnetum. Discuss the importance of this genus. **60**
8. (a) Discuss the importance of Ethnobotany in India. **30**
- (b) Give botanical names of ten spice yielding plants and write the name of their families. **30**