

CS—86/06

BOTANY

Paper—I

Time—Three Hours

Full Marks—300

*Candidates should attempt Question No. 1 from Section-A and Question No. 5 from Section-B Which are compulsory, and any **THREE** of the remaining questions, selecting at least **ONE** from each Section.*

All questions carry equal marks.

SECTION—A

1. Answer any **THREE** of the following (in not more than 200 words each) :— 20×3=60
 - (a) Describe in brief about the gene transfer in Bacteria.
 - (b) Enumerate the usefulness of microbes in medicine.
 - (c) Write a critical account of the evolution of sporophyte in Bryophytes.
 - (d) Discuss briefly about a phylogenetic system of classification of Angiosperms.
2. Write about the following :— 20×3=60
 - (a) Life cycles in Algae
 - (b) Evolution of Stele in Pteridophytes
 - (c) Salient features of the family malvaceae.

3. Answer the following :— 20×3=60
- (a) Sporophyte of Anthoceros
 - (b) Plant diseases caused by Viruses
 - (c) Molecular basis of infection and disease resistance.
4. Write notes on :— 20×3=60
- (a) Fungal toxins
 - (b) Salient features and economic importance of Leguminosae
 - (c) Phytoimmunology.

SECTION—B

5. Answer any **THREE** of the following :— 20×3=60
- (a) Write an account on spices and beverages yielding plants.
 - (b) Tests of significance.
 - (c) Describe the types of endosperm and its functions
 - (d) Somatic hybrids.
6. Answer the following :—
- (a) Give an account of adaptive type of anomalous secondary growth in dicots. 30
 - (b) Write an essay on polyembryony. 30
7. Answer the following :—
- (a) Describe apomixis and its significance. 30
 - (b) Explain the origin of cultivated plants. 30
8. Write notes on :—
- (a) What is a botanical garden ? What are different sections in it ? What are its uses ? 30
 - (b) Enumerate the salient features of cell culture and add a note on its applications. 30