

CSM : 15

BOTANY
PAPER - I

Time Allowed : 3 hours

Full Marks : 100

Marks for each question is indicated against it.

Attempt any 5 (five) questions taking not more than 3 (three) questions from each Part.

PART A

1. Write short notes on any two of the following:- **(2×10=20)**
 - (a) Bacterial transformation
 - (b) Viroids
 - (c) Role of microbes in agriculture

2. Write notes on any two of the following:- **(2×10=20)**
 - (a) Late blight of potato
 - (b) Types of fossils
 - (c) Aim of plant quarantine system

3. Write an account on any two of the following:- **(2×10=20)**
 - (a) International Code of Botanical Nomenclature
 - (b) Numerical taxonomy
 - (c) Binomial nomenclature

4. Describe the general characters on any two of the following families giving floral diagram and floral formula:- **(2×10=20)**
 - (a) Brassicaceae
 - (b) Orchidaceae
 - (c) Liliaceae

PART B

5. Write notes on any two of the following: (2×10=20)
- (a) Pollen-pistil interaction
 - (b) Tetrasporic type of female gametophyte development
 - (c) Polyembryony and its significance
6. Write short notes on any two of the following:- (2×10=20)
- (a) Vavilov's concept of 'centre of origin of cultivated plants'
 - (b) Importance of Ethnobotany in India
 - (c) Herbaria
7. Write a note on the following:- (4×5=20)
- (a) Process of Organogenesis in plants
 - (b) Embryo rescue methods
 - (c) Anther culture
 - (d) Cybrids
8. What do you understand by anomalous secondary growth? Comment on the anomalous secondary structures in the stem of *Bignonia* and *Dracaena*. (4+8+8=20)

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