CSM : 14

BOTANY
PAPER - I

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 the following: (2×10=20)
   (a) Role of microbes in agriculture
   (b) Mycoplasma
   (c) Prion and Prion hypothesis

2. Write short notes on any two of the following: (2×10=20)
   (a) Economic importance of fungi
   (b) Salient features of Coniferales or Cycadales
   (c) Geological time scale

3. Give the salient features and brief outline of phylogenetic and modern system of classification of angiosperms. Mention its merits and demerits. (14+6=20)

4. Write the diagnostic characteristics of any two of the following families: (2×10=20)
   (a) Fabaceae
   (b) Poaceae
   (c) Solanaceae
   (d) Orchidaceae
PART B

5. Write short notes on any two of the following: (2×10=20)
   (a) Monosporic type of female gametophyte development
   (b) Types of pollination
   (c) Types of endosperm development

6. Answer any two of the following: (2×10=20)
   (a) Write ethnobotanical description of any two plants used by the people of North-Eastern India as timber.
   (b) Energy plantations.
   (c) Role of botanical gardens in conservation of plants.

7. Answer any two of the following:
   (a) Somatic embryogenesis and its role in crop improvement. (10)
   (b) What do you understand by the term ‘totipotency’? Describe the significance of the phenomenon in plant biotechnology. (2+8=10)
   (c) Micropropagation (10)

8. Write short notes on any two of the following: (2×10=20)
   (a) Glandular and non-glandular trichomes
   (b) Anomalous secondary growth in *Bignonia*
   (c) Formation of annual rings in angiosperms

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