

CSM – 14/17
Botany
Paper – I

Time : 3 hours

Full Marks : 300

The figures in the right-hand margin indicate marks.

*Candidates should attempt Q. No. 1 from Section – A and Q. No. 5 from Section – B which are compulsory and any **three** of the remaining questions selecting at least **one** from each Section.*

SECTION – A Techofworld.in

1. Answer any **three** of the following in not more than **200** words each : 20×3 = 60
 - (a) Describe, in brief, about the role of microbes in agriculture and medicine.
 - (b) Enumerate the different modes of sexual reproduction in fungi.
 - (c) Write an account on the structure of viruses.

- (d) Describe the general characters and economic importance of Apiaceae (Umbelliferae).
2. Write notes on the following : $20 \times 3 = 60$
- (a) Male cone in Cycas
 - (b) Different types of Stellar Systems in Ferns
 - (c) Cronquist system of Classification(1981)
3. Give answer of the following : $20 \times 3 = 60$
- (a) Range of thallus structure in Algae
 - (b) Bacterial Blight of rice
 - (c) Apospory and Apogamy in the members of the Pteridophytes
4. Write notes on any **three** of the following : $20 \times 3 = 60$
- (a) Geographical distribution of **Pinus** species in India
 - (b) Salient features and economic importance of Arecaceae (Palmae)
 - (c) Rust diseases caused by fungi
 - (d) Transformation and Transduction in Bacteria

SECTION – B

5. Answer any **three** of the following : 20×3 = 60
- (a) Differentiate between anatomy of C_3 and C_4 plants.
 - (b) Describe the patterns of embryo development.
 - (c) Comment on the Chi-square test and Coefficient of Correlation.
 - (d) Write an account of Apomixis.
6. Answer the following : **Techofworld.In**
- (a) Give an account of Mechanical tissues. 30
 - (b) Discuss the development of Male Gametophyte in Angiosperms. 30
7. Write in short on the following :
- (a) Importance of Tissue Culture 30
 - (b) The techniques of Herbarium preparation and their role in teaching and research 30
8. Write notes on the following :
- (a) Different Vavilovian Centres of origin of cultivated plants 30
 - (b) Fibre-yielding plants 30



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