

BOTANY (OPTIONAL) PAPER-I

TIME ALLOWED: THREE HOURS

MAXIMUM MARKS: 100

- NOTE:** (i) Attempt in English language only.
(ii) Attempt any five questions.

- Q.1 (i) Discuss criteria used for the classification of algae? 10
(ii) Give an account of general characteristics of Cynophyta with special reference to nitrogen fixation. 10
- Q.2 (i) Describe sporophyte in Anthoceros. 10
(ii) Explain the life cycle of a moss plant. 10
- Q.3 (i) Comment on the classification of fungi. 10
(ii) Give life cycle of Adiantum. 10
- Q.4 (i) Justify the statement "Cycas is a living fossil." 10
(ii) Describe male and female cone of Pinus. 10
- Q.5 (i) Give merits and demerits of Engler and Prantle system of classification 10
(ii) What are the rules of International Code of Botanical Nomenclature (ICBN)? 10
- Q.6 (i) Discuss different theories about the organization of cells in meristem. 10
(ii) Explain the secondary growth in dicot plants. 10
- Q.7 (i) Briefly describe the life cycle of Angiosperm. 10
(ii) What do you know about apomixes and polyembryony? 10
- Q.8 Write short notes on the following:
(i) Sporocarp of Marsilea 5
(ii) Botanic Gardens 5
(iii) Plant Cell wall 5
(iv) Puccinia graminis 5
- Q.9 Differentiate between the following:
(i) Parenchyma and Collenchyma 4
(ii) Sporangium and Sporogonium 4
(iii) Dictyostele and Solenostele 4
(iv) Chemotaxonomy and Numerical taxonomy 4
(v) Pits and Plasmodesmata 4