IAS Mains Botany 2003

Paper-I

Section-A

1. Answer any THREE of the following: (not more than 200 words each): 20 × 3 = 60

    a. Describe the lysogenic life cycle in viruses.

    b. Classify algae according to V. J. Chapman. Give characters of each class.

    c. Discuss evolution of steles in Pteridophytes.

    d. Describe various types of Path toxins and their role in plant diseases.

2. With the help of suitable describe the life cycle of Aspergilius and discuss the economic importance of this genus. 60

3. Give causal organism, symptoms and control measures of the following: 20 × 3 = 60

    a. Ergot of Bajra

    b. Blast of Rice

    c. Stem gall of coriander

4. Write notes on: 20 × 3 = 60

    a. Reproductive structure of Chara

    b. Vegetative reproduction in Bryophytes

    c. Tot potency

Section-B

5. Answer any three of the following: (not more than 200 words each): 20 × 3 = 60

    a. Importance of Cycadofilicales.

    b. Development of female gametophyte in Angiosperms.

    c. Anomalous secondary growth in Dracaena.

    d. Energy plantation and its importance.

6. Write an account of floral structures of the following families. Give botanical names of three important plant species belonging to each of the three families and specify their uses: 20 × 3 = 60

    a. Asteraceae

    b. Solanaceae

    c. Asclepiadaceae

7. Describe the development of male gametophyte in Gnetum. Discuss the impotence of this genus. 60

8. Answer the following questions

a. Discuss the importance of Ethno botany in India. 30

b. Give botanical names of ten spice yielding plants and write the name of their families. 30