2022

(February)

BOTANY

(Honours)

(Ecology and Conservation Biology)

[BOTH–502]

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer Question No. **1** which is compulsory and *any* **four** from the rest, selecting **one** from each Section

1. Write short notes on the following : 4×4=16

(a) Fire as an ecological factor

(b) Survivorship curves

(c) Detritus food chain

(d) Magnitude of vascular plant diversity in India

SECTION—I

2. What are physiographic factors? Describe the significance of slope and aspect of a mountain in population distribution of plants. 4+6=10

3. Describe the anatomical adaptational features of xerophytes and epiphytes with the help of illustrations. 5+5=10

SECTION—II

4. Define a population. Describe the attributes of a plant population. 2+8=10

5. What are the structural components of an ecosystem? Give an account of the abiotic components of an ecosystem. 2+8=10

SECTION—III

6. What are ecological pyramids? Describe the different types of ecological pyramids with illustrations. 2+8=10

7. What is a biogeochemical cycle? Give an account of the carbon cycle and its importance in nature. 2+6+2=10

SECTION—IV

8. What are the sources of air pollution? Discuss in detail the effects and control measures of air pollution. 3+4+3=10

9. Write short notes on the following : 5+5=10

(a) Biosphere reserve

(b) Gene bank

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