2025

(NEP—2020)

(1st Semester)

BOTANY

(Multi-disciplinary Course)

(Plants and Environment)

(Regular)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(SECTION : A—OBJECTIVE)

(*Marks* : 10)

Tick (✓) the correct answer in the brackets provided : 1×10=10

1. Which of the following is a plant of great medicinal value?

(a) *Coffea robusta* ( )

(b) *Oryza sativa* ( )

(c) *Zea mays* ( )

(d) *Cinchona officinalis* ( )

2. The staple food of Mizoram is

(a) *Avena sativa* ( )

(b) *Oryza sativa* ( )

(c) *Triticum aestivum* ( )

(d) *Zea mays* ( )

3. Ethnobotany involves indigenous or traditional knowledge of plants especially as

(a) trade ( )

(b) tourism ( )

(c) shelter ( )

(d) medicine ( )

4. The conservation of biodiversity in controlled condition of zoos, gardens and sanctuaries is known as

(a) *ex-situ* conservation ( )

(b) *in-situ* conservation ( )

(c) natural conservation ( )

(d) artificial conservation ( )

5. Hotspots are the regions of

(a) critically endangered population ( )

(b) endemism ( )

(c) endangered species ( )

(d) vulnerable species ( )

6. Which of the following gases contributes to the global warming?

(a) Calcium carbonate ( )

(b) Hydrogen sulfide ( )

(c) Carbon dioxide ( )

(d) Sodium chloride ( )

7. Which of the following is an example of *ex-situ* conservation in Mizoram?

(a) Dampa Tiger Reserve ( )

(b) Khawnglung Wildlife Sanctuary ( )

(c) Murlen National Park ( )

(d) Aizawl Zoological Park ( )

8. Andaman and Nicobar Islands lies in the

(a) Sundaland hotspot ( )

(b) Himalaya hotspot ( )

(c) Indo-Burma hotspot ( )

(d) Western Ghats hotspot ( )

9. Which of the following produces the most damaging acid rain?

(a) Sulphur dioxide ( )

(b) Carbon dioxide ( )

(c) Carbon monoxide ( )

(d) Hydrogen sulfide ( )

10. The process of concentration of toxic substances increasing as you move up the food web is

(a) bioaccumulation ( )

(b) biomagnification ( )

(c) diffusion ( )

(d) absorption ( )

(SECTION : B—SHORT ANSWERS)

(*Marks* : 25)

Write short notes on *five* of the following, taking at least *one* from each Unit : 5×5=25

UNIT—I

1. Scientific name, family and uses of rice

2. Scientific name, family and uses of Indian gooseberry

3. Scientific name of cotton and its uses

UNIT—II

4. Different levels of biodiversity

5. *In-situ* and *ex-situ* conservation of biodiversity

6. Consequences of biodiversity loss

UNIT—III

7. Difference between biotic and abiotic components with examples

8. Causes of soil pollution

9. Greenhouse effect

(SECTION : C—DESCRIPTIVE)

(*Marks* : 40)

Answer *four* questions, taking at least *one* from each Unit : 10×4=40

UNIT—I

1. Define ethnobotany. Discuss the scope of ethnobotany in India. 2+8=10

2. Write a note on the ethnobotanical importance of wheat and maize with scientific names and families. 5+5=10

3. Write a note on the scientific names, families and medicinal values of *Rauwolfia* and *Cinchona*. 5+5=10

UNIT—II

4. Define biodiversity. Discuss the causes of biodiversity loss. 2+8=10

5. What are the criteria for a region to be a hotspot? Describe the Indo-Burma and Sundaland hotspot. 2+8=10

6. Write a note on the values of biodiversity. 10

UNIT—III

7. Define ecosystem. Discuss the component of ecosystem. 2+8=10

8. What is pollution? Explain the causes and control of air pollution. 2+8=10

9. Describe the causes and control measures of water pollution. 5+5=10

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