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(CBCS)

(5th Semester)

BOTANY

EIGHTH PAPER

(Environmental Biology and Ethnobotany)

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. Edaphic factor of the environment refers to the properties and related aspects of

- (a) biotic components ()
- (b) climate ()
- (c) altitude ()
- (d) soil ()

2. Which of the following is the slowest of the biogeochemical cycle?

- (a) Sulphur cycle ()
- (b) Phosphorus cycle ()
- (c) Nitrogen cycle ()
- (d) Hydrologic cycle ()

3. Normal unpolluted rain is mostly

- (a) neutral ()
- (b) slightly alkaline ()
- (c) slightly acidic ()
- (d) strongly acidic ()

4. In which layer of the atmosphere does ozone layer depletion take place?
- (a) Troposphere ()
 - (b) Stratosphere ()
 - (c) Mesosphere ()
 - (d) Thermosphere ()
5. 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 ()
6. A recognizable sign to distinguish the products or services of one enterprise from another is called
- (a) trademark ()
 - (b) geographical indicator ()
 - (c) industrial design ()
 - (d) patent ()
7. Tropical rainforests show
- (a) no stratification ()
 - (b) very low stratification ()
 - (c) some degrees of stratification ()
 - (d) highest degree of stratification ()
8. Which of the following is not a characteristic of mangrove forests?
- (a) Adaptation to saline environment ()
 - (b) Found in waterlogged soil ()
 - (c) Found near coastlines ()
 - (d) Found in dry areas with low rainfall ()
9. In Mizoram, *Clerodendrum colebrookianum* is used for its
- (a) fibre-yielding property ()
 - (b) fodder usage property ()
 - (c) medicinal property ()
 - (d) fruit-yielding property ()

10. The term 'ethnobotany' was first introduced by

- (a) J. W. Harshberger ()
- (b) Ernst Haeckel ()
- (c) Eduard Suess ()
- (d) W. G. Rosen ()

(SECTION : B—SHORT ANSWER)

(Marks : 15)

Write short notes on the following :

3×5=15

UNIT—I

1. Non-renewable natural resource

OR

2. Biotic factors of the environment

UNIT—II

3. Causes of acid rain

OR

4. High-level radioactive waste

UNIT—III

5. Any two soil conservation methods

OR

6. Patent

UNIT—IV

7. Endemism

OR

8. Biodiversity of Andaman region

UNIT—V

9. Botanical names and families of three plants used as food

OR

10. Botanical names and families of three plants used as antiseptic medicinal plants by Mizo people

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer the following questions :

10×5=50

UNIT—I

1. Elucidate the cycling of nitrogen in the environment with the help of a flow diagram.

OR

2. Write brief notes on the following :

5+5=10

(a) Biosphere

(b) Level of biodiversity

UNIT—II

3. Describe the phenomena of greenhouse effect and mention its impact on the environment.

2+8=10

OR

4. Give a brief account of the following :

5+5=10

(a) Biomagnification

(b) Formation of photochemical smog

UNIT—III

5. Describe the conservation strategies for protecting water resources in India.

OR

6. Write short notes on the following : 5+5=10
(a) Environmental laws
(b) *In situ* conservation

UNIT—IV

7. Describe the major vegetation types found in India.

OR

8. Briefly describe the following : 5+5=10
(a) The concept of hot spot
(b) Floristic region of the Western Ghat

UNIT—V

9. Define ethnobotany. Mention its scope with reference to the Indian scenario. 2+8=10

OR

10. Write short notes on the following : 5+5=10
(a) The scientific names, families and uses of two fruit-yielding plants
(b) The scientific names, families and uses of two fibre-yielding plants
