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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. How does carbon dioxide in atmosphere enter in living organisms?

- (a) Burning of forest ()
- (b) Combustion of fossil fuel ()
- (c) Photosynthesis ()
- (d) Transpiration ()

2. Alpha diversity is biodiversity present

- (a) within community ()
- (b) between communities ()
- (c) ranges of communities ()
- (d) outside community ()

3. The main causes of acid rain are
- (a) CO₂ and CO ()
 - (b) SO₂ and O₃ ()
 - (c) SO₂ and NO₂ ()
 - (d) NO and SO ()
4. Accumulation of a toxic chemical as it goes up a food chain is
- (a) biomagnification ()
 - (b) bioaccumulation ()
 - (c) bioremediation ()
 - (d) Both (a) and (b) ()
5. The Environmental (Protection) Act was enacted in the year
- (a) 1974 ()
 - (b) 1984 ()
 - (c) 1986 ()
 - (d) 1975 ()
6. Which one of the following is not included under *in-situ* conservation?
- (a) Sanctuary ()
 - (b) Botanical Garden ()
 - (c) Biosphere Reserve ()
 - (d) National Park ()
7. Savannas are grasslands with
- (a) thick trees ()
 - (b) bushes ()
 - (c) scattered trees ()
 - (d) no trees ()
8. When a species used to live in a large area but now lives only in a smaller area, it is called
- (a) paleoendemism ()
 - (b) neoendemism ()
 - (c) megaendemism ()
 - (d) microendemism ()

9. Ethno-medicinally which of the following plants is used as anthelmintic?

(a) *Clerodendrum colebrookianum* ()

(b) *Centella asiatica* ()

(c) *Artemesia nilagirica* ()

(d) *Eupatorium odoratum* ()

10. The staple food of Mizoram, *Oryza sativa* belongs to the family

(a) Asteraceae ()

(b) Poaceae ()

(c) Polygonaceae ()

(d) Verbenaceae ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write notes on the following in brief :

3×5=15

UNIT—I

1. Level of biodiversity

OR

2. Nitrogen cycle

UNIT—II

3. Ozone layer depletion

OR

4. Biomagnification

UNIT—III

5. Conservation of soil

OR

6. Patent

UNIT—IV

7. Phytogeography

OR

8. Biodiversity of Andaman region

UNIT—V

9. Economic importance of fibre-yielding plants

OR

10. Three botanical names and families of three plants used as food

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer the following questions :

10×5=50

UNIT—I

1. Define natural resources. Explain the renewable and non-renewable resources.

2+8=10

OR

2. Write short notes on the following :

5+5=10

(a) Concept of biosphere

(b) Interaction of environmental factors

UNIT—II

3. What is greenhouse effect? Mention its impact on the environment and various remedial measures to check it.

2+8=10

OR

4. Write short notes on the following :

5+5=10

(a) Non-biodegradable pollutants

(b) Formation of photochemical smog

UNIT—III

5. What is biodiversity loss? Write an account of *ex-situ* and *in-situ* conservation for mitigating biodiversity loss. 2+8=10

OR

6. Write short notes on the following : 5+5=10
(a) IPR
(b) Environmental laws

UNIT—IV

7. What is vegetation? Describe the major vegetation types found in India. 2+8=10

OR

8. Write short notes on the following : 5+5=10
(a) Types of endemics and threat to endemic regions
(b) The concept of hotspot

UNIT—V

9. What do you mean by ethnobotany? Discuss its scope and significance. 2+8=10

OR

10. Write short notes on the following : 5+5=10
(a) Two fruit-yielding plants with scientific names, families and uses
(b) Two medicinal plants with scientific names, families and uses
