

2 0 2 5

(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. Which of the following is a renewable resource?

(a) Coal ()

(b) Natural gas ()

(c) Solar energy ()

(d) Petroleum ()

2. The natural reservoir of phosphorus is

- (a) rock ()
- (b) seawater ()
- (c) fossil ()
- (d) animal bone ()

3. Which of the following is not a greenhouse gas?

- (a) Water vapor ()
- (b) Carbon dioxide ()
- (c) Methane ()
- (d) Oxygen ()

4. Normal unpolluted rain is mostly

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

5. Botanical gardens are examples of

(a) *in-situ* conservation ()

(b) *ex-situ* conservation ()

(c) on-site conservation ()

(d) genetic erosion ()

6. The IUCN Red List provides information about

(a) threats to ecosystems ()

(b) endangered and extinct species ()

(c) protected areas ()

(d) biodiversity hotspots ()

7. Tropical rainforests show

(a) no stratification ()

(b) very low stratification ()

(c) some degrees of stratification ()

(d) highest degree of stratification ()

8. Which one of the following is not a biodiversity hotspot of India?

- (a) The Himalayas ()
- (b) The Western Ghats ()
- (c) Indo-Burma ()
- (d) The Gangetic Plain ()

9. The term 'ethnobotany' was first introduced by

- (a) J. W. Harshberger ()
- (b) Ernst Haeckel ()
- (c) E. P. Odum ()
- (d) A. T. Tansley ()

10. *Clerodendrum colebrookianum* is used for its

- (a) medicinal property ()
- (b) fodder usage property ()
- (c) fruit-yielding property ()
- (d) fibre-yielding property ()

(SECTION : B—SHORT ANSWERS)

(Marks : 15)

Write notes on the following in brief :

3×5=15

UNIT—I

1. Non-renewable natural resource

OR

2. Abiotic factors of the environment

UNIT—II

3. Cause of acid rain

OR

4. Greenhouse effect

UNIT—III

5. Conservation of water resource

OR

6. IPR

UNIT—IV

7. Endemism

OR

8. Biodiversity hotspot

UNIT—V

9. Staple food in Mizoram

OR

10. Three medicinal plants and their uses

(SECTION : C—DESCRIPTIVE)

(Marks : 50)

Answer the following questions :

10×5=50

UNIT—I

1. What is biogeochemical cycle? Describe water cycle with a neat diagram.

2+8=10

OR

2. Write short notes on the following :

5+5=10

(a) Biosphere

(b) Carbon cycle

UNIT—II

3. Write the phenomena of ozone layer. Mention its impact on the environment.

2+8=10

OR

4. Write short notes on the following :

5+5=10

(a) Biomagnification

(b) Acid rain

UNIT—III

5. What is biodiversity loss? Write a comprehensive account on the Environmental Laws and Acts.

2+8=10

OR

6. Write short notes on the following :

5+5=10

(a) *Ex-situ* conservation

(b) Conservation of soil

UNIT—IV

7. What is phytogeography? Describe the floristic regions of the Eastern Himalayas. 2+8=10

OR

8. Write short notes on the following : 5+5=10
(a) Floristic region of the Western Ghats
(b) Grassland type of India

UNIT—V

9. Define ethnobotany. Elucidate its scope with reference to Indian context. 2+8=10

OR

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

★ ★ ★