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(CBCS)

(6th Semester)

ZOOLOGY

TWELFTH (B) PAPER

(Animal Ecology and Wildlife)

Full Marks : 75

Time : 3 hours

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 10)

Tick (✓) the correct answer in the brackets provided :

1×10=10

1. Charles Elton (1947) defined ecology as

- (a) scientific study of natural history ()
- (b) study of the structure and function of ecosystem ()
- (c) the total relation of the animal to both its organisms ()
- (d) All of the above ()

2. The lake ecosystem provides a typical example for

- (a) pyramid of biomass ()
- (b) pyramid of energy ()
- (c) pyramid of number ()
- (d) None of the above ()

3. The average annual rainfall of India is about
- (a) 105 cm–114 cm ()
 - (b) 105 cm–115 cm ()
 - (c) 105 cm–116 cm ()
 - (d) 105 cm–117 cm ()
4. The amino group (–NH) is liberated from organic molecules to form ammonia is called
- (a) nitrification ()
 - (b) deamination ()
 - (c) denitrification ()
 - (d) None of the above ()
5. Law of tolerance was formulated by V. E. Shelford in
- (a) 1910 ()
 - (b) 1911 ()
 - (c) 1912 ()
 - (d) 1913 ()
6. The transitional series of communities which develop in a given area are
- (a) climax ()
 - (b) sere ()
 - (c) community ()
 - (d) ecesis ()
7. The density (number or biomass) per unit total space is
- (a) crude density ()
 - (b) specific density ()
 - (c) numerical density ()
 - (d) biomass density ()
8. In ecological natality N_n is
- (a) absolute natality rate ()
 - (b) production of new individual ()
 - (c) specific natality ()
 - (d) new individuals in the population ()

9. The Forest (Conservation) Act, was amended in

- (a) 1980 ()
- (b) 1952 ()
- (c) 1988 ()
- (d) 1958 ()

10. Project Tiger planned to create

- (a) tiger reserves in selected areas of India ()
- (b) conservation and management of tiger ()
- (c) protection and conservation of tiger ()
- (d) All of the above ()

SECTION—B

(Marks : 15)

Write short notes on the following :

3×5=15

1. Mutualism

OR

Food webs

2. Carbon cycle

OR

Sulfur cycle

3. Greenhouse effect

OR

Limiting factors

4. Mortality

OR

Species diversity

5. IUCN Red List

OR

Principles of soil conservation

(PART : B—DESCRIPTIVE)

(Marks : 50)

The figures in the margin indicate full marks for the questions

1. Define ecosystem. How does energy flow in ecosystems? 2+8=10

OR

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

2. Describe the detailed steps involved in hydrological cycle. 10

OR

Write a detailed note on cycling of nitrogen in the ecosystem. 10

3. Explain Shelford's law of tolerance. 10

OR

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

(a) Basic types of succession

(b) Global warming

4. Write detailed note on factors affecting species diversity. 10

OR

Explain the population growth curve. Add a note on two types of natality. 7+3=10

5. What is anthropogenic activity? Describe the effects on human activities on the environment. 2+8=10

OR

Define wildlife. Describe the various measures taken for the wildlife management in India. 2+8=10
