I-CC-Zoo-II

2021

ZOOLOGY

(Honours)

Paper-CC-Zoo-II

(*Principles of Ecology*)

Full Marks : 60

Time : 3 hours

Answer **all** questions.

The figures in the right-hand margin indicate marks.

PART—I

1. Fill in the blanks : 1 × 8

(a) The carrying capacity of a population is chiefly controlled by ———.

(b) The study of interaction between individuals and its environment in known as ———.

(c) Arrangement of species into different vertical layers is termed ———.

(d) The true microdecomposer considered are ——— and ———.

(e) The total of all observations divided by number of observations is called ———.

(f) The transition area between two biomes is known as ———.

(g) Any hypothesis which is tested for the purpose of rejection under the assumption that it is true is called ———.

(h) The term ecosystem was introduced by —— .

PART—II

2. Answer any *eight* questions within two to three sentences :   1.5 × 8

(a) What do you mean by Synecology ?

(b) Define Gause principle.

(c) Define Simpson's diversity index.

(d) Define central tendency.

(e) What is parasitoidism ?

(f) Give the principal components of biogeochemical cycles.

(g) What are class intervals ? Narrate.

(h) Define stratified sampling.

(i) What is keytone species ?

(j) What is biological data ?

PART—III

3. Answer any *eight* questions within 75 words each :   2 × 8

(a) Differentiate between primary productivity and Secondary productivity of ecosystem.

(b) Differentiate between crude density and specific density.

(c) Draw the diagram of different types of age pyramid.

(d) Differentiate between Food chain and Food web.

(e) What is biological disporsal of organism ? How it varies from dispersion ?

(f) What is nudation and write its different causes.

(g) Give diagram of Nitrogen cycle.

(h) Explain population interaction.

(i) What is measure of central tendency ? Discuss. https://www.odishastudy.com

(j) Find the geometric mean of 2, 4 and 8.

PART—IV

4. Answer any *four* questions within 500 words each : 6 × 4

(a) Explain Light as Physical factor.

(b) What are law of limiting factors ? Discuss.

(c) Describe exponential and Logistic theory of population growth.

(d) Write Gause's principle of exclusion criteria with suitable examples.

(e) Discuss the zonation and vertical stratification of a community.

(f) Find the mean deviation about the median for the following data :
3, 9, 5, 3, 12, 10, 18, 4, 7, 19, 21

(g) Describe different types of inter and intraspecific competition among population.

(h) Describe ecological succession with one example.