

B.Sc. 1st Semester (Honours) Examination-2022-23

ZOOLOGY

Course ID : 12612 Course Code : SH/ZOO/102/C-2

Course Title : Perspectives in Ecology (New)

Time : 1 Hour 15 Minutes

Full Marks : 25

The figures in the right hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Unit-I

1. Answer **any five** questions : 1×5=5

(a) What is Lindeman's law of trophic efficiency?

(b) Define Biocoenose.

(c) Give one example of Ramsar site in India.

(d) Differentiate between median and mode.

- (e) Differentiate between foundation species and keystone species.
- (f) What is a climax community?
- (g) What is ecological niche?
- (h) Define competitive exclusion.

Unit-II

2. Answer **any two** questions : 5×2=10

- (a) Explain Shelford's law of tolerance with suitable example. Write down the role of temperature as a limiting factor. 2+3
- (b) What is pioneer community? Explain the process of ecological succession with suitable diagram. 1+4
- (c) What do you mean by Biodiversity hotspots? Write in brief about ex-situ conservation of biodiversity. 1+4

- (d) Compare standard deviation and standard error. Find out the standard deviation and standard error from the sample given below : 1+4

Class value	Frequency
48	8
50	32
52	78
54	50
56	25
58	7

Unit-III

3. Answer **any one** question : 10×1=10

- (a) State the two laws of thermodynamics. Discuss with proper diagram that energy flow in ecosystem is unidirectional. 3+5+2
- (b) Define biogeochemical cycle. Describe the process of Nitrogen cycle in environment. 2+8