

UNDERGRADUATE SEMESTER-I EXAMINATIONS, 2021

Subject: ZOOLOGY

Course ID:12612

Course Code: SH/ZOOH/102/C-2

Course Title: Perspectives in Ecology

Full Marks: 25

Time:1 Hr 15 Min

The figures in the margin indicate full marks

Answer all the questions.

UNIT I

1. Answer any five of the following questions:

(1x5= 5)

- a) Differentiate between crude density and ecological density.
- b) Define edge effect.
- c) What is parabiosphere?
- d) Explain modular population.
- e) State two factors involved in biological equilibrium.
- f) What do you mean by keystone species?
- g) State Liebig's Law of minimum.
- h) Distinguish between potential mortality and realized mortality.

UNIT II

2. Answer any two of the following questions:

(5x2= 10)

- a) Distinguish between sanctuary and national park. Describe the different steps taken in project tiger in India. 2+3= 5
- b) What is Gause's principle? Give suitable example. How the two species can co-exist in the same niche? 2+1+2= 5
- c) What is succession? Give a short account of the vertical stratification of the terrestrial community. 1+4= 5
- d) Define survivorship curve. Describe the three general type of survivorship curves with examples 2+3= 5

UNIT III

3. Answer *any one* of the following questions:

(10x1= 10)

- a) What are the basic principles of energy flow through ecosystem? Describe the universal energy flow model with a suitable diagram. Differentiate between NPP and GPP. Define agroecosystem. 2+4+2+2= 10
- b) What is Shelford's law of Tolerance? Describe various effects of temperature on animals and mention why temperature is considered as limiting factors. 2+4+4=10