Code No.: A04/4305

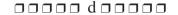
Or

Define and explain antibiosis with the help of suitable examples.

(D) What is mutualism? What are the possible reasons for the evolution of mutualism? Explain mutualism between two animal species.

Or

What is commensalism? Explain different types of commensalism with the help of suitable examples.



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Fourth Semester Online Examination, August 2021

M.Sc.

Paper III

[Population Ecology]

Time : Three Hours] [Maximum Marks : 80

Note: Part A and B of each question in each unit consist of Very Short Answer Type Questions, which are to be answered in one or two sentences. Part C (Short Answer Type) and D (Long Answer Type) of each question should be answered within the word limit 200-250 and 400-450.

Unit – I

- 1. (A) Give difference between a cohort life table and a time specific life table. 2
 - (B) Define fecundity.
 - (C) Write a note on Natality. 4

Or

Explain Mortality.

[4] 4/50

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(D) What is population density? Describe various methods used for estimation of population density. 12

Or

What is population growth? Describe various phases of a typical population growth curve.

Unit - II

- 2. (A) Give at least two significance of animal dispersal. 2
 - (B) Define Biotic potential.
 - (C) Write a note on migration in mammals. 4

Or

Discuss different factors affecting migration in animals.

(D) Write an essay on population cycle. 12

Or

Describe intrinsic mechanism for regulation of population size.

Unit – III

3. (A) Define habitate. 2

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(B) What is niche?

2

(C) Explain effect of humidity as limiting factor for animals.

Or

Write a note on sex ratio

(D) Differentiate between the ecological niche and microhabitate. How would you explain adaptive convergence on the basis of ecological niche?

12

\mathbf{Or}

State Gauss's principle of competitive exclusion. Justify it with the help of suitable example.

Unit - IV

- **4.** (A) If the population of prey declines, suggest two possible consequences for predators. **2**
 - (B) Give possible deduction for the following statement, "In a particular area the population of a predator did not decline following a big reduction in the population of its main prey.

 2
 - (C) Write a note on internal parasitic adaptation.

[3]

P. T. O.