

G-3/390/22

Roll No.

III Semester Examination, January, 2022

M.Sc.

ZOOLOGY

Paper II

(Animal Behaviour and Population Ecology)

Time : 3 Hours]

[Max. Marks : 80

Note : *All questions are compulsory. Question Paper comprises of 3 Sections. Section A is objective type/multiple choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.*

SECTION A

1×8=8

(Objective Type/Multiple Choice Questions)

Choose the correct answer :

1. Study of behaviour is known as :
(a) Ethology (b) Embryology
(c) Ecology (d) Ichthyology
2. Analysis of behaviour is known as :
(a) Kilogram (b) Milligram
(c) Ethogram (d) None of these

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3. When related animals gain fitness together known as :
(a) Selfishness (b) Co-operation
(c) Spite (d) Altruism
4. House sparrow exhibits :
(a) daily migration (b) seasonal migration
(c) cyclic migration (d) none of these
5. Life table is also known as :
(a) Mortality table (b) Actuarial table
(c) Both (a) and (b) (d) None of these
6. Natality is related with :
(a) Birth (b) Death
(c) Both (a) and (b) (d) None of these
7. When members of two species interact with each other and both are benefited, known as :
(a) Neutration (b) Commensalism
(c) Mutualism (d) All of these
8. Competition in animals is :
(a) Positive (b) Negative
(c) Positive and Negative
(d) All of the above

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SECTION B**6×4=24****(Short Answer Type Questions)**

Note : Answer the following questions with suitable well labelled diagram in **250** words.

Unit-I

1. What is Motivation ? Explain it with suitable example.

Or

Explain the modern version of Thorndike experiment for instrumental learning on pigeon with well labelled diagram.

Unit-II

2. Describe the different ways by which animals marks their territory.

Or

Write the characteristics of social group.

Unit-III

3. What do you mean by population growth ? Explain Sigmoid growth curve.

Or

Write the difference between *r* and *k* selection.

Unit-IV

4. What are the external factors ? Which are responsible for population regulation ?

Or

Explain Predation.

SECTION C**12×4=48****(Long Answer Type Questions)**

Note : Answer the following questions with well labelled diagram in **500** words.

Unit-I

1. What is Fixed Action Pattern (FAP) ? Explain it by constancy, Need sign stimulus for release and Resistance to phylogenetic changes with suitable example and well labelled diagram.

Or

Describe the auditory communication in detail.

Unit-II

2. Explain the reproductive behaviour in animals.

Or

Describe Heterotrophic feeding strategy in animals with example.

Unit-III

- 3.** Describe the capture-tagging-release method for population density.

Or

Explain exponential growth model in discrete generation of natural population.

Unit-IV

- 4.** Explain the competition in animals.

Or

Describe the animal and plant interaction.

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