

M.Sc. BOTANY
THIRD SEMESTER
PLANT ECOLOGY
MSB-303 D

[USE OMR SHEET FOR OBJECTIVE PART]

2023/12

**SET
A**

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

Marks: 10

(Objective)

1×10=10

Choose the correct answer from the following:

- Smaller hypervolume occupied by a species is called:
a. Fundamental niche
b. Niche overlapping
c. Realised niche
d. None
- The concept of niche is given by:
a. Hutchinson
b. Odum
c. Koromondy
d. Joseph Grinnel
- Organisms that occupy the similar ecological niches in different geographical regions are known as:
a. Ecological displacement
b. Ecological community
c. Ecological equivalent
d. Allopatry
- Based on the responses observed in plants and animals, adaptations are classified into:
a. Structural adaptations
b. Behavioral adaptations
c. Physical adaptations
d. All of the above
- Huaker's experiments were given on:
a. Prey-predator interactions
b. Hervivory
c. Parasite interactins
d. None of the above
- When a stationary and stable age distribution exists, the specific growth rate is called:
a. Co-efficient of population growth
b. Carrying capacity
c. Age structure
d. Intrinsic rate of natural increase
- The term used for ecological interaction between two species where one species obtains a benefit from the relationship and the second species is affected by it:
a. Parasitism
b. Mutualism
c. Proto-coperation
d. Symbiosis
- Density increases rapidly in exponential or compound interest fashion and stops abruptly as environmental resistance or other limit become effective more or less suddenly in:
a. The J shaped form of growth curve
b. Sigmoid form
c. Acceleration phase
d. Survivorship curve

9. If the environment is constant , selection favours slow development, longer life span, low or medium metabolic rate, longer body size are the characteristics of:
- a. Population fluctuation
 - b. Biological clock
 - c. r selected species
 - d. k selected species
10. The specific range within which species can tolerate ecological changes is called:
- a. Ecotype
 - b. Ecophene
 - c. Ecological amplitude
 - d. Ecospecies

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(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

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|---|--------|
| 1. Define Habitat and Niche. Describe different types of niches with suitable examples. | 1+4=5 |
| 2. What is adaptation? What are the different types of adaptations? | 2+8=10 |
| 3. What is population? Describe in brief different attributes of population. | 2+8=10 |
| 4. Write short notes on: (<i>any two</i>) | 5+5=10 |
| a) Factors affecting weed crop interference | |
| b) Metapopulation | |
| c) Ecophene | |
| 5. What is intra and interspecific interactions? Describe in brief different types of interactions. | 2+8=10 |

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