REV-01
MSB/07/10

2025/11

SET
A

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

[USE OMR FOR OBJECTIVE PART]

Duration: 1.30 hrs. **Full Marks: 35**

Objective

Time: 15 min. **Marks: 10**

1X10=10

Choose the correct answer from the following:

1 Huaker's experiments were given on
- a Prey –predator nteractions
- b hervivory
- c Parasite interactins
- d None of the above

2 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

3 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

4 The concept of niche is given by
- a Hutchinson
- b Odum
- c Koromondy
- d Joseph Grinnel

5 Smaller hypervolume occupied by a species is called
- a Fundamental niche
- b Niche overlapping
- c Realised niche
- d None of the above

6 The specific range within which species can tolerate ecological changes is called
- a Ecotype
- b Ecophene
- c Ecological amplitude
- d Ecospecies

7 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

8 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

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. 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

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(Descriptive)

Time : 1 hrs. 15 min. **Marks : 25**

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

1. Define Habitat and Niche? Describe different types of niches with suitable examples **5**

2. What is adaptations? What are the different types of adaptations **2+8=10**

3. **Write short notes on (any two)** **5+5=10**
   a. Population viability
   b. Metapopulation
   c. Population dynamics

4. What is population? Describe in brief different attributes of population with emphasis on J and S shaped growth curve **2+8=10**

5. What is interspecific interactions? Describe in brief different types of interactions **2+8=10**

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