

2024
M.Sc.
Fourth Semester
CORE – 11
ZOOLOGY
Course Code: MZOC 4.11
(Ecology & Environmental Biology)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. Give an account on the different ecological niches and explain how the presence of different niches within an ecosystem contribute to over all niches diversity. 7+7=14
2. Explain laws and limiting factors on the environment. Write the factors and effect on water and humidity on the ecosystem. 7+7=14

UNIT-II

3. How does the concept of species richness differ from species diversity? Explain in detail. 14
4. Write notes on the following. 7×2=14
 - (a) Age and sex ratio
 - (b) Density dependent and density independent in population

UNIT-III

5. Give a detailed account on the mode of ecological succession in terrestrial ecosystem. Add a note on the type of change of communities in an ecosystem. 10+4=14

6. (a) Explain the concept of production in an ecosystem and how do they contribute to energy flow and nutrient cycling. 7
(b) What are the different theories on the concept of climax? 7

UNIT-IV

7. (a) Define ozone? Discuss on the key mechanism involved in the destruction of ozone molecules in the stratosphere. 7
(b) Write a note on acid deposition. 7
8. Write notes on the following: $7 \times 2 = 14$
(a) Environmental stresses and their management
(b) Bio indicators and biomarkers of environmental health

UNIT-V

9. Explain the Wildlife (Protection) Act of 1972 in India. Add a note on the conservation and management of wild animals. $10+4=14$
10. (a) What are the different biodiversity management approaches that contributes to the conservation and enhancement of biological diversity in ecosystems? 7
(b) Discuss on the major drivers of biodiversity change in the environment. 7
-