

Five Year Integrated M.Sc. Examinations 2024
Semester - VII
Paper: EES-4-7-5
(Ecology)

Time: 3 Hours

Full Marks: 40

Questions are of values as indicated in the margin.

Answer ***Question No.1*** and ***any four*** from the rest

1. Write short notes on **any four** of the following 2×4 = 8
 - (a) Carrying capacity
 - (b) Autogenic and allogenic succession
 - (c) Ecological Niche
 - (d) Homeorhesis
 - (e) Denitrification
 - (f) Labile pool and Flux

2.
 - (a) What is speciation?
 - (b) How can a new species form through allopatric, parapatric, and sympatric speciation?2+(2+2+2) = 8

3.
 - (a) What are the problems faced by agro-ecosystems at present?
 - (b) Discuss how can one overcome the problems by adopting lower input sustainable agriculture. Explain by providing suitable diagrams.3+5 = 8

4. Write short notes on the following:
 - (a) Phosphorus cycles
 - (b) Y- shape model of energy flow4+4 = 8

5. Explain 'J' and 'S' shape population growth curve. 4+4 = 8

6. Write brief notes on the following:
 - (a) Classical approach of ecological succession
 - (b) Lotka-Volterra model4+4 = 8

7.
 - (a) What is ecological pyramid? Explain any two type of pyramid in forest ecosystem.
 - (b) Illustrate the various types of nutrient inputs for pond ecosystem.(1+3)+3 = 8