

PG CBCS
M.Sc. Semester- IV Examination, 2022
Department of Zoology
PAPER: ZOO 403B (SPL PAPER)



Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

The figures in the right-hand margin indicate full marks.
 Candidates are required to give their answers in their own words as far as practicable.

ZOO 403B.1: SYSTEMS ECOLOGY

Marks: 20

GROUP-A

- 1. Answer any two questions:** 2×2=4
- a) What are major and minor communities?
 - b) What are the different categories of ecosystem services?
 - c) State the significance of ecorestoration.
 - d) Mention the stratification of aquatic ecosystem with respect to dynamics of light.

GROUP-B

- 2. Answer any two questions:** 2×4=8
- a) Elaborate the species diversity hypothesis.
 - b) Write a note on ecological restoration and sustainability.
 - c) State the basic concept of ecological modeling. What do you mean by index of similarity? 2+2
 - d) Explain Levine's theory of metapopulation.

GROUP-C

- 3. Answer any one question:** 1×8=8
- a) Define ecotourism. State the merits and demerits of ecotourism. Discuss how human wellbeing is influenced by ecosystem services. 2+4+2
 - b) Write short notes on any four:-
 - (i) Nutrient cycling
 - (ii) Fragmentation
 - (iii) Thermocline
 - (iv) Patterns of spatial distribution
 - (iv) Eutrophicated lake.

(P.T.O.)

(2)

ZOO 403B.2: HUMAN ECOLOGY

Marks: 20

GROUP-A**1. Answer any two questions:** 2×2=4

- a) What is Environmental Impact assessment?
- b) What is point and non-point source of pollution? Cite examples.
- c) How fertilizers and pesticides affect soil ecosystem?
- d) What is ozone layer depletion?

GROUP-B**2. Answer any two questions:** 2×4=8

- a) Write a note on the different categories of bio-medical wastes.
- b) What is soil erosion? What are the factors behind soil erosion? 1+3
- c) Briefly discuss about the different stages of bioinvasion.
- d) Explain eutrophication citing appropriate example. What is Red tide? 3+1

GROUP-C**3. Answer any one question:** 1×8=8

- a) Broadly elaborate municipal solid wastes based on type. Comment on the wastes generated from livestock production. 5+3
- b) What is alien invasive species? Define Ecomark. What are biomedical wastes? How are they managed? 2+2+2+2
