

Reg. No

Name

23P2007

M. Sc. DEGREE END SEMESTER EXAMINATION : MARCH 2023

SEMESTER 2 : ZOOLOGY

COURSE : 21P2ZOOT05: FIELD ECOLOGY

(For Regular - 2022 Admission and Supplementary - 2021 Admission)

Duration : Three Hours

Max. Weights: 30

PART A

Answer any 8 questions

Weight: 1

1. What are abiotic components? How they interconnected with biotic components in an ecosystem? (E, CO 1)
 2. How feedback mechanisms control the cybernetic nature of an ecosystem? (U, CO 2)
 3. Briefly describe the finite nature of natural resources (U)
 4. Briefly explain Energy Audit (U)
 5. Comment on indices of relative abundance of population. (U, CO 3)
 6. Comment on the characteristics of population (U, CO 3)
 7. Differentiate between guild and ecological equivalents (A, CO 4)
 8. Differentiate between autogenic succession and allogenic succession (A, CO 4)
 9. Define the second law of thermodynamics (R, CO 3)
 10. Elucidate pyramid of biomass with an example. (A, CO 3)
- (1 x 8 = 8)**

PART B

Answer any 6 questions

Weights: 2

11. Bring out the significance of character displacement considering various animal groups. (An, CO 1)
 12. Explain Gaian processes (An, CO 2)
 13. Explain Green Technology and sustainable development (U)
 14. Differentiate between r and k selection (A, CO 3)
 15. Comment on the ecological and evolutionary effects of competition (U, CO 3)
 16. Give a brief account of the concept of climax (A, CO 4)
 17. Differentiate between GPP, NPP and NCP. (A, CO 3)
 18. Comment on primary and secondary productivity. (U, CO 3)
- (2 x 6 = 12)**

PART C

Answer any 2 questions

Weights: 5

19. Explain resource partitioning quoting suitable examples. (U)
 20. Write an essay on Conventional and non-conventional Energy resources (U)
 21. Discuss the concept of meta population (U)
 22. Write notes on biogeochemical cycles. (R, CO 3)
- (5 x 2 = 10)**

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 1	Perceive the fundamentals of ecology and environment – Physical environment, homeostasis.	Cr	1, 11	3
CO 2	Relate the cybernetic nature of ecosystem - feedback control & redundancy of components; resistance and resilience stability, Gaia hypothesis.	E	2, 12	3
CO 3	Discuss the structure and function of the Ecosystem – Ecological energetics, Animals and nutrient acquisition Biomass and productivity measurement, Biogeochemical cycles	An	5, 6, 9, 10, 14, 15, 17, 18, 22	17
CO 4	Explain the concepts of population ecology – Population group properties, growth forms, life history strategies, population structure,	A	7, 8, 16	4

Cognitive Level (CL): Cr - CREATE; E - EVALUATE; An - ANALYZE; A - APPLY; U - UNDERSTAND; R - REMEMBER;