

M. Sc DEGREE END SEMESTER EXAMINATION - JULY 2021**SEMESTER 2 : ZOOLOGY****COURSE : 16P2ZOOT05 : ECOLOGY: PRINCIPLES AND PRACTICES***(For Regular - 2020 Admission and Supplementary 2019/2018/2017/2016 Admissions)*

Time : Three Hours

Max. Marks: 75

PART A**Answer any 8 (2 marks each)**

1. What is resource partitioning?
2. Write notes on character displacement.
3. Differentiate fundamental and realized niche
4. What are biotic components of an ecosystem? Cite examples.
5. Write notes on chemical process of nitrogen cycle.
6. Comment on indices of relative abundance of population.
7. Differentiate between physiological natality and ecological natality
8. Differentiate between density-independent and density-dependant action in population control
9. Differentiate between guild and ecological equivalents
10. Name the resources of importance to Man
11. Briefly explain Energy Audit
12. Differentiate biotic and abiotic natural resources

(2 x 8 = 16)**PART B****Answer any 7 (5 marks each)**

13. Write notes on the concept of habitats.
14. Write notes on resistance and resilience stability.
15. Comment on sulphur cycle.
16. Comment on the ecology of a temperate and tropical region.
17. Briefly discuss life table and survivorship curves
18. Explain population growth forms
19. Discuss the mechanism of violent oscillatory type of population fluctuations
20. Give a brief account of the concept of climax
21. Comment on the significance of soil fertility
22. Explain Green Technology and sustainable development

(5 x 7 = 35)**PART C****Answer any 2 (12 marks each)**

23. Write notes on the concept of homeostasis with special reference to the cybernetic nature of an ecosystem.
24. Give an account of biomass and productivity measurement
25. Give an account of population interactions
26. Describe the mineral resources of India and impact of mining on environment.

(12 x 2 = 24)