

**M. Sc. DEGREE END SEMESTER EXAMINATION : NOVEMBER 2023****SEMESTER 1 : ZOOLOGY****COURSE : 21P1ZOOT01 : ANIMAL DIVERSITY: PHYLOGENETIC AND TAXONOMIC APPROACHES***(For Regular - 2023 Admission and Improvement/Supplementary -2022/2021 Admissions)*

Duration : Three Hours

Max. Weights: 30

**PART A****Answer any 8 questions****Weight: 1**

1. What is schizocoelous coelom? (U)
  2. Comment on metamerism. (U, CO 6)
  3. Prepare a critical note on six kingdom classification. (Cr, CO 2)
  4. Molecular phylogenetics and molecular evolution correlate. Verify (A, CO 4)
  5. Comment on the mammalian diversity in India. (An)
  6. Comment on the skeletal system of sponges. (A)
  7. Comment on the living fossil under class reptilia. (A)
  8. What is Gamma Taxonomy? (U, CO 3)
  9. Comment on evolutionary approach in systematics. (R, CO 6)
  10. What do you know about 'mammal like reptiles'? (An, CO 6)
- (1 x 8 = 8)**

**PART B****Answer any 6 questions****Weights: 2**

11. Briefly explain the characteristics of subphylum vertebrata. (U)
  12. Write briefly on 'Ethics in Taxonomy'. (R, CO 6)
  13. Describe the palaeohistory of arthropods. (A, CO 8)
  14. Give the evolutionary significance of Trochophore larva. (An)
  15. Enlist the contributions of Salim Ali and Sunder Lal Hora to the study of Indian Fauna. (An, CO 7)
  16. What is phylocode? Mention its significance. (A, CO 6)
  17. Compare deuterostomia with protostomia. (An)
  18. What is endemism. Explain endemism in Kerala. (An)
- (2 x 6 = 12)**

**PART C****Answer any 2 questions****Weights: 5**

19. Outline the format of a new description in the journal Zootaxa. Mention the significance of type study in taxonomy. (E, CO 5)
  20. Construct a cladogram and explain the details of the diagram with the help of an example. compare and contrast a cladogram and a phylogram. (An, CO 6)
  21. Molluscs are more advanced than annelids. Validate the statement. (An)
  22. List out the characteristics of class reptilia. Write a note on its classification. (An)
- (5 x 2 = 10)**

OBE: Questions to Course Outcome Mapping

CO	Course Outcome Description	CL	Questions	Total Wt.
CO 2	Discuss the procedures in taxonomy and ethics in publications PO1, PO3, PO4 PSO3, PSO4	A	3	1
CO 3	Appreciate the contributions made by scientists and organisations towards conservation of animal diversity	An	8	1
CO 4	Analyze the present status of Indian fauna and the role played by ZSI for conservation of Indian fauna PSO2, PSO4	An	4	1
CO 5	Examine the diversity of Palaeofauna	An	19	5
CO 6	Discuss the animal architecture	An	2, 9, 10, 12, 16, 20	12
CO 7	Compare the invertebrate fauna by their characteristics	An	15	2
CO 8	Compare the vertebrate animals by their characteristics	An	13	2

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