Reg. No ..... Name **24P1007**

M.Sc. DEGREE END SEMESTER EXAMINATION - NOVEMBER 2024

SEMESTER 1 : ZOOLOGY

COURSE : **21P1ZOOT01 : ANIMAL DIVERSITY: PHYLOGENETIC AND TAXONOMIC APPROACHES**

(For Regular 2024 Admission and Improvement/Supplementary 2023/2022/2021 Admissions)

Duration : Three Hours Max. Weights: 30

PART A

Answer any 8 questions **Weight: 1**

1.	Differentiate protozoan and parazoan.	(An)
2.	Comment on enterocoelous coelom.	(U)
3.	What is schizocoelous coelom?	(U)
4.	Define Microtaxonomy.	(U, CO 3)
5.	Discuss on the bird fossils of cenozoic era.	(An, CO 3)
6.	Compare allopatric species and sympatric species.	(E, CO 2)
7.	Compare cladistics and phenetics.	(An, CO 5)
8.	Briefly explain the molluscan diversity of India.	(An)
9.	List out the characteristics of egg laying mammals giving suitable examples.	(U, CO 8)
10.	CO1 gene is considered as the universal marker for animals. why?	(E, CO 7)

(1 x 8 = 8)

PART B

Answer any 6 questions **Weights: 2**

11.	Explain adaptive radiation in placental mammals.	(An)
12.	Discuss the merits and demerits of Barcoding of life.	(An, CO 6)
13.	Authorship in a journal is a complicated issue. Justify the statement.	(An)
14.	Describe the palaeohistory of arthropods.	(A, CO 8)
15.	Comment on different types of coelom. Add a note on the origin of coelom.	(An)
16.	Comment on the Indian bird fauna.	(An)
17.	Describe the contributions of Ferdinand Stoliczka and Wynter – Blyth to the study of Indian Fauna.	(A, CO 5)
18.	Give the evolutionary significance of Trochophore larva.	(An)

(2 x 6 = 12)

PART C

Answer any 2 questions **Weights: 5**

19.	Explain the charcteristics of class aves. Brief on their classification.	(An, CO 8)
20.	Define maximum parsimony. Discuss the methods to choose the most parsimonious tree in a phylogenetic analysis? Add notes on the merits of phylogenetic trees.	(E, CO 7)
21.	Present the format of a revision of a taxa in the journal Zootaxa. Add notes on the undesirable practices in taxonomy.	(An, CO 6)
22.	Molluscs are more advanced than annelids. Validate the statement.	(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	6	1
CO 3	Appreciate the contributions made by scientists and organisations towards conservation of animal diversity	An	4, 5	2
CO 5	Examine the diversity of Palaeofauna	An	7, 17	3
CO 6	Discuss the animal architecture	An	12, 21	7
CO 7	Compare the invertebrate fauna by their characteristics	An	10, 20	6
CO 8	Compare the vertebrate animals by their characteristics	An	9, 14, 19	8

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