

MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024

2020, 2021, 2022, 2023 ADMISSIONS SUPPLEMENTARY

SEMESTER I - CORE COURSE ZOOLOGY

ZO1C01TM20 - Animal Diversity: Phylogenetic and Taxonomic Approaches

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

1. State planula hypothesis substantiating metazoan origin.
2. Enumerate the different terminologies to describe animal body axis.
3. Explain paedomorphosis in vertebrate phylogeny.
4. Write a brief account on Protochordates.
5. Comment on anthracosauria.
6. Explain endothermy in Dinosaurs.
7. Summarize eurogram and swoopogram.
8. Describe Integrative taxonomy.
9. Write a note on MOTU.
10. Write an account on atlas.

Part B

II. Answer any Six questions. Each question carries 2 weight

(6x2=12)

11. Interpret the phylogenetic importance of Onychophora.
12. "Cambrian explosion refers to the sudden appearance in the fossil record of complex animals with mineralized skeletal remains". Justify.
13. Discuss the characteristics of subphylum vertebrata.
14. Define Coelom indicating its functional relevance. Analyse the different modes of coelom formation and types in Bilateria.
15. List out the causes of extinction in reptiles.
16. Describe briefly on identifying characteristics of amniotes and amniotic egg of reptiles.
17. Elaborate the features, principles and rules pertaining to ICZN.
18. Discuss briefly on ethics in taxonomy.

Part C

III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

19. Comment on the phylogenetic position of arthropods. Give details on the reasons for the success of arthropods.
20. Give an account on the classification and phylogeny of fishes. Provide details on the structural and functional adaptations of fishes.
21. Write an essay on adaptive radiation in reptiles.
22. Elaborate on significances of phylogenetic systematics and the various types of phylogenetic trees.

