First Semester M.Sc. Degree Examination (CSS) - Zoology

ZY1CT01 Course I - Biosystematics and Animal Diversity

Time: 3Hours **Total Weight-30**

Section I – Short answer type questions **weight- 1**

Answer any 10 out of 12

1. Distinguish between holotype and paratype.
2. What is Phenetics?
3. How jaws evolved? What is its evolutionary significance?
4. List four differences between Protostomes and Deutrostomes.
5. Comment on the evolutionary significance of therapsids.
6. What are the reasons for the mass extinction of Mesozoic reptiles?
7. Huxley called birds as "Glorified Reptiles". Substantiate this statement.
8. How Prototherians differ from Metatherians?
9. What is Phylocode? Comment on its significance.
10. Give a brief account on the significance of trocophore.
11. Distinguish between Chondrichthyes and osteichthyes.
12. Comment on Placozoa.

Section II – Short essay type questions **Weight -2**

Answer any 5 out of 8

13. Discuss the differences of Cladistics and typological approach in systematics.
14. Compare and contrast the five kingdom and six kingdom classifications.
15. Comment on the reasons for the success of Arthropods.
16. Discuss the impact of sedentary life on the organization of invertebrates.

17. Briefly describe the structural and functional adaptations of fishes for aquatic life.
18. Explain the importance of reptilian skull in biosystematics.
19. Comment on the diversity of modern amphibians and briefly mention the major threats faced by this group.
20. Give an account on the phylogeny of mammalian orders.

Section III - Long essay type questions **weight- 5**

Answer any 2 out of 3

21. What is a species? Discus the merits and demerits of different definitions of species. Comment on the taxonomic diversity within species.

22. Discuss the advantages of coelom and metamerism in animal world with suitable examples and narrate the significance.

23. Comment on the phylogenetic position of molluscs among invertebrates and describe molluscan adaptive radiation.