

**M. Sc DEGREE END SEMESTER EXAMINATION - OCT. 2020 : FEBRUARY 2021****SEMESTER 1 : ZOOLOGY****COURSE : 16P1ZOOT01 : BIOSYSTEMATICS AND ANIMAL DIVERSITY***(For Regular - 2020 Admission and Supplementary - 2016/2017/2018/2019 Admissions)*

Time : Three Hours

Max. Marks: 75

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

1. Comment on Subspecies
2. Complete honesty is ofcourse imperative in scientific work, Agree or not, Why?
3. Distinguish between Alpha and omega taxonomy?
4. Write a brief note on BNHS.
5. What is endemism ? List out the endemic animals of Kerala.
6. List out the major arachnids of India.
7. Comment on Ediacaran fauna.
8. Distinguish between true coelom and haemocoelom.
9. What is schizocoelous coelom?
10. Write note on placozoa.
11. What is the significance of Limulus in evolution?
12. Comment on volant adaptation.

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

13. Evaluate critically the biological and evolutionary species concepts.
14. Distinguish between 'Plesiomorphic and Apomorphic characters'.
15. What are the defining features of zoological nomenclature?
16. List out the applications of DNA barcoding. Prepare notes on its merits and demerits
17. Write a note on *The Fauna of British India, including Ceylon and Burma*.
18. Comment on the Indian bird fauna.
19. Comment on the phylogeny of Echiuroidea.
20. Comment on the levels of organization in organismal complexity.
21. List out the characteristics of Echinodermata
22. Briefly explain the characteristics of subphylum vertebrata

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

23. Explain the format for the revision of a taxon in zootaxa. Describe various types of taxonomic publications.
24. A phylogenetic tree is a diagram that represents evolutionary relationships among organisms. Substantiate the statement
25. Briefly explain the geography and faunal diversity of western ghats.
26. List out the characteristics of Arthropoda. Highlight why arthropods have achieved great diversity and abundance?

**(12 x 2 = 24)**