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M.Sc. DEGREE (C.S.S.) EXAMINATION, OCTOBER 2019

First Semester

Faculty of Science

Branch VIII: Zoology

ZY 1C T01—BIOSYSTEMATICS AND ANIMAL DIVERSITY

(2012—2018 Admissions)

Time: Three Hours

Maximum Weight: 30

Section I (Short Answer Type Questions)

Answer any ten out of twelve.

Weight 1 each.

- 1. What is meant by curetting?
- 2. What is phylocode?
- 3. What is the difference between a cladogram and a phylogenetic tree?
- 4. Briefly classify arthropoda upto classes.
- 5. Name the larval forms of echinodermata.
- 6. Differentiate between agnatha and gnathostomata.
- 7. Write notes on Bar-coding of Life.
- 8. What is Red queen principle?
- 9. What is meant by Burgess Shale fauna?
- 10. What is meant by typological species concept?
- 11. Differentiate between radial and bilateral symmetry.
- 12. Describe numerical taxonomy.

 $(10\times 1=10)$

Section II (Short Essay Type Questions)

Answer any **five** out of eight. Weight 2 each.

- 13. Write notes on phylogenetic trees.
- 14. Explain the evolutionary advantages of coelom and metamerism.

Turn over





19002618

- 15. Comment on the five kingdom and six kingdom classification. Add a note on its merits and demerits.
- 16. Give an account on the phylogeny of mammalian orders.
- 17. Comment on the phylogeny of Onychophora and Chaetognatha.
- 18. Comment on the reasons for the success of arthropods.
- 19. Comment on the diversity, distribution and status of modern amphibians.
- 20. Comment on the Mesozoic world of reptiles and their extinction.

 $(5 \times 2 = 10)$

Section III (Long Essay Type Questions)

Answer any **two** out of three. Weight 5 each.

- 21. Explain the concept of species, its merits and demerits. Comment on the taxonomic diversity within species.
- 22. Comment on the structural and functional adaptations of fishes for its mode of life.
- 23. Give an account on the phylogeny and evolutionary significance of hemichordata.

 $(2 \times 5 = 10)$

