

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2023
(Regular/Improvement/Supplementary)**

**ZOOLOGY
FZOL1C03- SYSTEMATICS AND EVOLUTION**

Time: 3 Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries *two* weightage.

1. What is good genes hypothesis?
2. Comment on co-evolution, with suitable example
3. Write a short note on molecular clocks.
4. List out different kinds of taxonomic characters.
5. Elaborate on alpha, beta and gamma taxonomy.
6. Write a short short note on principle of priority.
7. Enlist the goals of taxonomy.

(4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Write a note on Hardy-Weinberg law
9. Briefly describe Y-chromosomal Adam and mitochondrial Eve.
10. Explain the types of speciation.
11. Write a note on Neutral theory of molecular evolution.
12. Discuss the ethics in taxonomy.
13. Mention the advantages and demerits in the DNA bar coding and traditional taxonomy.
14. Give a note on the International Code of Zoological Nomenclature.

(4 × 3 = 12 weightage)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. Write an essay on the mechanisms involved in the natural and sexual selection.
16. Elaborate on the process of gradualism and punctuated equilibrium.
17. Write an essay on the taxonomic collections and curation.
18. Explain the impediments to build up taxonomic collections and maintenance.

(2 × 5 = 10 weightage)