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NEPNY—36—2023

FACULTY OF SCIENCE AND TECHNOLOGY

M.Sc. (NEP) (First Year) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

ZOOLOGY

Paper SZOOC-402

(Biosystematics, Taxonomy and Evolution)

(Friday, 22-12-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) Question No. 1 is compulsory.

(ii) Out of remaining 5 questions (Q. No. 2 to Q. No. 6) answer any *three* questions.

(iii) *All* questions carry equal marks.

(iv) Illustrate your answers with suitable labelled diagrams, wherever necessary.

1. Answer each of the following :

20

(a) Give a brief account of trends in Biosystematics.

(b) Describe different types of taxonomic publication.

(c) Explain in brief Biodiversity Loss.

(d) Describe bottleneck and founder effects.

P.T.O.

2. (a) Explain Hierarchy of taxonomic categories in classification. 10
- (b) What is a species ? Discuss different concepts of species. 10
3. (a) What are taxonomic keys ? Describe different types of taxonomic keys. 10
- (b) Describe the taxonomic procedure of collection, preservation and identification of specimens. 10
4. (a) Describe important rules of International Code of Zoological Nomenclature. 10
- (b) Describe the methods of conservation of Biodiversity. 10
5. (a) Explain the Darwin's theory of Natural Selection. 10
- (b) Give a brief account of Genetic Drift. 10
6. Answer each of the following : 20
- (a) Describe the importance and application of Biosystematic in biology.
- (b) Write a note on Taxonomic Characters.
- (c) Give an account of Biodiversity Distribution.
- (d) Explain in brief Lamarck's Theory of Evolution.