

POST-GRADUATE DEGREE PROGRAMME

Term End Examination — December, 2024

ZOOLOGY

**Paper-1B : TAXONOMY, BIODIVERSITY AND
CONSERVATION**

Time : 2 hours]

[Full Marks : 50

Weightage of Marks : 80%

Special credit will be given for accuracy and relevance in the answer. Marks will be deducted for incorrect spelling, untidy work and illegible handwriting. The weightage for each question has been indicated in the margin.

1. Answer *two* questions : 9 × 2 = 18
 - a) Describe different types of speciation in panmictic species with necessary diagrams.
 - b) What do you mean by zoological taxonomic types ? Discuss different categories of types under two broad divisions. 2 + 7
 - c) What is biodiversity ? Describe different levels of biodiversity. 2 + 7
 - d) Mention the characteristics of marine environments. Describe the fauna of deep sea along with their adaptations. 3 + 6

2. Answer *three* questions : 6 × 3 = 18
 - a) What do you mean by phenetics ? Mention the merits and demerits of phenetics in brief. 2 + 4
 - b) Write notes on microevolution and macroevolution. 3 + 3
 - c) Write in brief about major taxonomic keys.
 - d) Describe chemotaxonomy in brief.
 - e) Add a note on biological species concept.
 - f) Mention the importance and basic features of ICZN.

3. Answer *two* questions : 4 × 2 = 8

a) What do you mean by primary homonyms and secondary homonyms ? 2 + 2

b) Mention the causes of depletion of biodiversity.

c) Describe the mega-diversity country concept in short.

d) Mention the characteristics of tropical rain forest biome.

4. Answer *two* questions : 3 × 2 = 6

a) What do you mean by endemic species ? Cite some examples.

b) What are light traps and pit fall traps ?

c) Write a brief note on ion-exchange chromatography and affinity chromatography. $1\frac{1}{2} + 1\frac{1}{2}$

d) Mention the differences between a taxon and taxonomic category.

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