

Zoology (P.G.)
[CBCS]

M.Sc. Second Semester End Examination-2024
(Regular & Supplementary Paper)
PAPER- ZOO-201

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

(Use separate answer script for each group)

Group A

Marks 20

(Biosystematics)

- 1. Answer any two questions of the following: 2x2= 4**
 - a. Define taxon with an example.
 - b. What is micro molecular taxonomy?
 - c. How taxonomy is related to Quarantine measure of a country.
 - d. Define subspecies with an example.

- 2. Answer any two questions of the following: 2x4= 8**
 - a. Discuss phylogeny with proper diagram.
 - b. Why taxonomy is important in biological studies?

(2)

- c. "Is classification a theory?" explain with proper reason.
- d. Write a note on typological aspects of species concept.

3. Answer any one question of the following: 1x8=8

- a. Explain biological species concept. Mention its merits and demerits with suitable examples. 8
- b. i) Discuss how immunological studies help in species identification.
- ii) Write down the role of systematic in Agriculture. 4+4

Group B

Marks 20

(Ecological Principles)

4. Answer any two questions of the following: 2x2= 4

- a. What do you mean by Linkage density? State one example. 1+1
- b. What is keystone species? Give example. 1+1
- c. Define intrinsic rate of growth of a population.
- d. What is inclusive fitness?

5. Answer any two questions of the following: 2x4= 8

- a. Write a short note on Gaia hypothesis. 4
- b. State the difference between resistance stability and resilience stability with suitable example. 2+2
- c. What is Hamilton's rule? Mention the difference between altruism and reciprocal altruism. 2+2

(3)

- d. Enumerate two important causes of endangerment of population in ecosystem. 2+2

6. Answer any one question of the following: 1x8=8

- a. Explain population competition in an ecosystem along with the Lotka volterra model. 8
- b. What is ecological equivalent? Write a short note on ecological guild. 4+4

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