



Full Marks: 40

OT54
Acc No.

MCC/18/M.Sc./Sem.-II/ZOO/1

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Second Semester Examination-2018
M.Sc. ZOOLOGY
Paper Code: ZOO-201

Time: 2 Hours

The figures in the margin indicate full marks.

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

Illustrate the answers whenever necessary.

Use separate Answer Scripts for Group-A & Group-B

Group A

(Biosystematics)

- 1. Answer two questions from the followings.** **2×2=4**
- a) Define type? Give an example.
 - b) What do you mean by taxonomic character? Give Suitable taxonomic characters for diagnosis of fish?
 - c) Define gama taxonomy.
 - d) What is deme? Give an example.
- 2. Answer two questions from the following.** **2×4=8**
- a) Define Holotype and paratype? Give importance of Holotype.
 - b) Write down the importance of taxonomy in biological science.
 - c) Describe biological species concept.
 - d) Write down the demerits of biological species concept.
- 3. Answer one question from the following** **8×1=8**
- a) Write note on-
 - i) Typological species concept. **4+4**
 - ii) Molecular approach in systematics.
 - b) Explain the role of systematics in-
 - i) Public health management. **4+4**
 - ii) Biological pest control.

Group-B
(Ecology)

- 4. Answer any two questions from the followings. 2×2=4**
- a) State the relation between ecological equivalent and Convergent evolution with a suitable example.
 - b) Distinguish between population Ecology and Habitat Ecology.
 - c) Describe the traits of r- and k- strategic organisms.
 - d) What do you mean by secondary succession?
- 5. Answer any two questions from the following. 2×4=8**
- a) Distinguish between Ecotone and Edge effect. Define Liebig's law of Tolerance.
 - b) Explain life table and fecundity?
 - c) Describe the different types of food webs. Emphasize their interrelationship.
 - d) Explain competitive Exclusion principle with evidence.
- 6. Answer any one question from the following. 1×8=8**
- a) i) What is optimal foraging model? 4
 - ii) State the difference between keystone species and Foundation species. 2+2
 - b) i) Elaborate Lotka-Volterra model of competition and predator-Prey interaction. 5
 - ii) Define Handicap's rule and Hamilton's rule. 3
