

**U.G. 2nd Semester Examination - 2020**

**ZOOLOGY**

**[HONOURS]**

**Course Code : ZOOH/CC-T-03**

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.*

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

1. Answer any **five** of the following: 2×5=10
  - a) What is ecotone?
  - b) What are detritivores?
  - c) Distinguish between autecology and synecology.
  - d) What is ammonification?
  - e) Distinguish between r- and k- selected species.
  - f) Distinguish between food chain and food web.
  - g) What is umbrella species? Give one example.
  
2. Answer any **two** questions: 5×2=10
  - a) In a bell-shaped pyramid what is the relation between natality and mortality? Write a short note on Liebig's law of minimum. 2+3=5

- b) What is biodiversity? What is "Schedule I"? Cite one example each of two different animal classes from Schedule-I. 2+2+1=5
  - c) Describe with diagram J and S-shaped curves. What are their significances? 4+1=5
  - d) Write a short note on the Lotka-Volterra equation for competition.
3. Answer any **two** questions: 10×2=20
    - a) What are decomposers? Justify their role as a major component of the ecosystem. Briefly describe the universal model of energy flow. 2+2+6=10
    - b) What is Gause's principle of competitive exclusion? Describe it with a laboratory example. What do you mean by ecological pyramid? State the significance of the pyramid of biomass and pyramid of number. 2+4+2+2=10
    - c) What is ecological succession? What is ecesis? Describe ecological succession with one example. 2+2+6=10

[Turn over]

- d) Write short notes (any **two**):  $5 \times 2 = 10$
- i) Tiger conservation.
  - ii) Nitrogen cycle
  - iii) Wildlife protection act.
  - iv) Vertical stratification of a forest community.

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