

B.Sc. 1st Semester (Hons.) Examination, 2020 (CBCS)

Subject: Zoology

Paper: CC-2 (Ecology)

Full Marks: 40

Time: 2 Hrs

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

*Answer any **eight** questions of the following:*

$5 \times 8 = 40$

1. State Gause's exclusion principle with suitable examples. How can two species co-exist within a same niche?
 2. Draw and describe sigmoid growth curve in a population and deduce the logistic equation.
 3. Explain the Liebig's Law of minimum with suitable example and explain photoperiod as regulatory factor in the environment.
 4. State the types of ecological succession and add a note on climax community.
 5. Briefly explain Shannon – Equality with suitable examples.
 6. Write down the different types of Lindeman's efficiency or Trophic level energy intake efficiency.
 7. What do you mean by IUCN Red List categories? Outline the different threat categories, 2001, version 3.1 with examples of Indian wild animals from each.
 8. How pyramid of energy portrays the trophic structure in a better way than pyramid of biomass and pyramid of number?
 9. Distinguish between K- selected and r – selected species. Give a brief account of the role of density dependent factors in population regulation.
 10. Describe different steps taken in "Project Tiger" in India.
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