

2021

ZOOLOGY — HONOURS

Paper : CC-11

(Ecology)

Full Marks : 50

The figures in the margin indicate full marks.

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

Answer **any ten** questions.

1. (a) What is 'Autecology'?
(b) Define Ecological Efficiency.
(c) What is population dispersal? 2+2+1
2. (a) How does major community differ from minor community?
(b) What is meant by 'Primary Productivity' of an Ecosystem?
(c) What is Umbrella Species? 2+2+1
3. (a) What is Niche overlap?
(b) Define *in-situ* conservation with suitable example.
(c) Comment on Biosphere Reserve. 1+(1+1)+2
4. (a) What is meant by Ecophene and Ecotype?
(b) Compare the role of Grager and Decomposer in an Ecosystem. 2+3
5. (a) The human survivorship curve is highly convex. — Explain.
(b) What is Carrying capacity? 3+2
6. (a) What is biotic potential?
(b) Distinguish between specific mortality and ecological mortality. 2+3
7. (a) Define photoautotroph and chemoautotroph.
(b) Elaborate how light and water regulate net primary production in an ecosystem. 2+3
8. (a) Mention the significance of life tables.
(b) Explain 'Inverted Pyramid'. 2+3

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9. (a) Distinguish between *r*-selected and *K*-selected species.
(b) What is species evenness? 3+2
10. (a) What do you mean by 'Biodiversity Hotspot'?
(b) Distinguish between 'Density dependent' and 'Density Independent' factors of population regulation. 2+3
11. (a) What do you mean by Vulnerable and Endangered species? Give example of each.
(b) Name one 'Vavilov centre of plant origin' in India. 1+1+1+1+1
12. (a) Compare between 'Flagship' and 'Keystone' species.
(b) What is 'Red data book'?
(c) Name one 'Bird Sanctuary' in India. 2+2+1
13. (a) Differentiate Primary and Secondary succession.
(b) How succession categorize on the basis of nutritional and energy contents? 2+3
14. (a) Write importance of detritus food chain.
(b) What do you mean by 'Eltonian Pyramid'? 2½+2½
15. (a) What is corridor in ecosystem?
(b) Write the advantages and problems of Ecosystem corridor. 1+2+2
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