

**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

**Please Turn Over**

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
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
-