

B.Sc. (Part—I) Semester—II Examination
ENVIRONMENTAL SCIENCE
(Ecology and Environment)

Time : Three Hours]

[Maximum Marks : 80

Note :— ALL questions are compulsory.

1. (A) Fill in the blanks with appropriate words :

- (i) _____ is a hotspot of Biodiversity in India. ½
- (ii) Parasitism is an example of _____ interspecific relationship. ½
- (iii) _____ is a gaseous biogeochemical cycle. ½
- (iv) _____ is a climatic factor. ½

(B) Choose the correct alternative and rewrite the following sentences :

- (i) _____ is an example of commensalism. ½
 - (a) *Vanda* (orchid)
 - (b) *Cuscuta*
 - (c) Algae
 - (d) Fungi
- (ii) _____ is an analytic character of community. ½
 - (a) Abundance
 - (b) Fidelity
 - (c) Quadrat
 - (d) Presence
- (iii) _____ is the reason for biodiversity loss. ½
 - (a) Forests fires
 - (b) Conservation
 - (c) Natality
 - (d) Species diversity
- (iv) The ecological boundaries of the two different floristic composition is referred as _____ ½
 - (a) Biodiversity
 - (b) Ecotone
 - (c) Productivity
 - (d) Interspecific Relationship

(C) Answer in **one** sentence :

- (i) Define Xerosere. 1
- (ii) Define Food Web. 1
- (iii) Define Ecosystem. 1
- (iv) Define Phenology. 1

2. Describe in brief :

- (a) Scope of ecology. 4
- (b) Climatic factors. 4
- (c) Graphic sketch of 'N' cycle. 4

OR

- (d) Biotic factors. 4
- (e) Significance of 'P' cycle. 4
- (f) Sketch of 'C' cycle. 4

3. Explain in brief :
- (g) Parasitism. 4
 - (h) Biotic potential. 4
 - (i) Age structure. 4
- OR**
- (j) Predation. 4
 - (k) Natality and Mortality. 4
 - (l) Mutualism. 4
4. Describe in brief :
- (m) Presence and constance. 4
 - (n) Phenology. 4
 - (o) Species diversity. 4
- OR**
- (p) Frequency. 4
 - (q) Community study by Quadrat method. 4
 - (r) Dominance. 4
5. Describe forest ecosystem with its significance. 12
- OR**
- Describe food chain in forest ecosystem. 12
6. Describe the process of succession and causes of succession. 12
- OR**
- Describe the concept of Productivity. How productivity is measured by chlorophyll, CO₂ and O₂ method ? 12
7. Explain in brief :
- (s) Ecological indicators of soil. 4
 - (t) Types of biodiversity. 4
 - (u) Reasons for loss of biodiversity. 4
- OR**
- (v) Role of Biological indicators in Environment. 4
 - (w) Hotspots of Biodiversity. 4
 - (x) Global diversity. 4