

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 :

www.FirstRanker.com

www.FirstRanker.com

- (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, CO_2 and O_2 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