



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) <i>Vanda</i> (orchid)   | (b) <i>Cuscuta</i>             |
| (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,  $\text{CO}_2$  and  $\text{O}_2$  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