

M.Sc. - I (Environmental Science) CBCS Pattern Semester-I  
**PSENV T03 - Ecology Paper-III**

P. Pages : 1

Time : Three Hours



**GUG/W/23/11160**

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Illustrate the answers with suitable diagrams and examples.

1. Discuss temperature and light as limiting factors. **16**

**OR**

a) Explain Liebig's law of minimum and Shelford's of tolerance. **8**

b) Discuss subdivisions of ecology. **8**

2. Explain ecological classification of freshwater habitat. **16**

**OR**

a) Discuss mutualism as positive interaction. **8**

b) Explain negative interaction with respect to exploitation. **8**

3. Discuss characteristics of population w.r.t. natality, mortality and dispersion. **16**

**OR**

a) Explain patterns of ecological succession. **8**

b) Discuss growth and structure as a community characteristic. **8**

4. Explain in detail nitrogen cycle. **16**

**OR**

a) Describe ecological indicators with suitable examples. **8**

b) Explain carbon cycle with neat sketch. **8**

5. a) Explain objectives of ecology. **4**

b) Describe beneficial and harmful effects of plankton. **4**

c) Explain significance of ecological succession. **4**

d) Describe pyramid of number. **4**

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