

Bachelor of Science (B.Sc.) (Part-I) (CBCS Pattern) First Semester
USENVT02 - Environmental Science Paper-II (Ecology)

P. Pages : 1

Time : Three Hours



GUG/W/18/11551

Max. Marks : 50

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

1. Define ecology. State objectives of ecology. Give sub-division of it. Add a note on applications of ecology. **10**
- OR**
- a) Discuss wind and fire as an environmental factors. **5**
b) With suitable examples discuss positive interaction. **5**
2. Define ecological succession. Describe general process of ecological succession. **10**
- OR**
- a) Describe age structure of population. How population density is estimated? **5**
b) What is ecotone and edge effect? Write a note on ecological niche. **5**
3. What is primary and secondary productivity? Describe harvest method and light and dark bottle method for productivity measurement. **10**
- OR**
- a) Explain ecological pyramids w.r.t number and energy. **5**
b) Define biogeochemical cycle with a sketch explain oxygen cycle. **5**
4. What are causes of mimicry? Describe evolution of mimicry. Give an account on Batesian and Mullerian mimicry. **10**
- OR**
- a) Describe adaptation in xerophytes. **5**
b) State importance of colouration. Highlight biological significance of colours. **5**
5. Answer in 2-3 lines **any ten**. **10**
- a) What is microclimate?
b) State Shelford's law of Tolerance.
c) Give examples of antibiosis.
d) Define natality.
e) What are ecotypes?
f) Give examples of major community.
g) What is lotic ecosystem?
h) Which type of biogeochemical cycle nitrogen cycle is.
i) Give full form of GPP.
j) What is camouflage?
k) Give examples of hydrophytes.
l) Define bio-mimicry.
