

M.Sc. Final (Environmental Science) (CBCS Pattern) Third Semester
PSCENVT12-2 / PSCENVT12 - Foundation Course - Ecology Paper-XII

P. Pages : 1

Time : Three Hours



GUG/W/18/11268

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. What is ecological niche? Describe its types. **16**
- OR**
- a) Explain major terrestrial biomes. **8**
- b) What is ecosystem stability? Give an account on resistance and resilience. **8**
2. Explain life tables, survivorship curves and population growth as characteristics of population. **16**
- OR**
- a) Describe deterministic and stochastic models of population dynamics. **8**
- b) Explain the concept of population and meta- population. **8**
3. With suitable examples describe how species interacts with each other. **16**
- OR**
- a) Explain types of ecological succession. **8**
- b) Describe the structure of community. **8**
4. Define biogeochemical cycle. Give its types. With a neat sketch explain nitrogen cycle. **16**
- OR**
- a) State types of ecosystem. Explain desert ecosystem. **8**
- b) Describe detritus pathway of energy flow and decomposition processes. **8**
5. a) State Liebig's law of minimum and Shelford's law of Tolerance. **4**
- b) Highlight stress- tolerance strategies. **4**
- c) Write a note on ecotone and edge effect. **4**
- d) What is nutrient budget? Enlist nutrient conservation strategies. **4**
