

SET-‘B’
B.Sc. Life Sciences (Sem II)
Paper Title: Plant Ecology and Taxonomy
UPC: 42161201

Department Code: 216

Time: 3 Hours + 1 hour

Maximum Marks: 75

(Write your University Roll Number and Paper Title & Code on top of the Answer Sheet) *Attempt any four questions in all. All questions carry equal marks.*

1. Differentiate between the two basic types of biogeochemical cycles. Diagrammatically represent Nitrogen Cycling in nature. Explain how have humans affected the carbon-cycling?
2. Give an account of some analytical characters studied by you for understanding communities. What is an edge effect? What are pioneers and how are these different from climax communities?
3. Explain how the flow of energy takes place in ecosystems. Discuss the types of food chains operating in tropical forests? What are the limitations of ecological pyramids?
4. Name any four famous Botanical Gardens of India. Discuss any ONE in detail. Prepare a box-in-box hierarchical presentation for the species *Solanum nigrum*.
5. Describe the steps involved in the classification of taxa using numerical taxonomy. Enumerate the differences between phenogram and cladogram.
6. Outline the system of classification given in Genera Plantarum. What are taxonomic keys? Enumerate the differences between bracketed and indented keys. What is OTU?