



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 5th Semester Examination, 2023-24

BOTADSE01T-BOTANY (DSE1/2)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

1. Answer the following questions: 1×16 = 16
- What is sustainable utilization of natural resources?
 - Distinguish between genetic diversity and species diversity.
 - What is Red Data Book?
 - What is carbon footprint?
 - Define ex-situ conservation.
 - What do you mean by biodiversity hot-spot?
 - Write down scientific name of one plant species found within mangrove ecosystems.
 - In which year the International Treaty of the Convention on Biological Diversity (CBD) was adopted? 2
 - Why is waste considered as one of the main environmental issues?
 - What is biofuel?
 - What is the full form of IPR?
 - Define National Park.
 - Differentiate between the concepts of species richness and species evenness within an ecosystem.
 - Name any two methods of water conservation.
 - Name one radio-active isotope that extensively applied in nuclear energy production.
 - What is meant by NTFP?
2. Answer any **eight** questions from the following: 3×8 = 24
- Enumerate the key indicators of soil degradation. How does soil degradation impact different ecosystem services? 1+2
 - Mention the name of the two most common non-renewable energy sources. How does non-renewable energy contribute to the environment? 1+2
 - Briefly discuss the ecological roles performed by wetlands and main treats they are facing in the current era. 1+2
 - Expand the acronym UNESCO. Explain the role of UNESCO in the conservation of Biodiversity. 1+2
 - Differentiate between afforestation and deforestation. 3
 - Discuss in brief the role of Biosphere Reserve in the conservation of biological diversity. 3

- (g) Explain about sustainable use and conservation of natural resources. 3
- (h) Write a short note on the Ecological Footprint. 3
- (i) Outline the major goals and objectives of the National Biodiversity Action Plan (NBAP) in preserving India's rich biodiversity and promoting sustainable resource utilization. $1\frac{1}{2}+1\frac{1}{2}$
- (j) What are the major and minor forest products? Briefly describe non-timber forest products. $1\frac{1}{2}+1\frac{1}{2}$
- (k) Write a short note on ZSI emphasising its role in resource management. 3
- (l) What is Environmental Impact Assessment (EIA)? Briefly discuss the key benefits of conducting EIA. 1+2

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