

Roll No. ....

Total Pages : 3

**GSE/M-20**

**1507**

**ENVIRONMENTAL SCIENCE–III**

**(Biodiversity Components)**

**Paper–III**

Time : Three Hours]

[Maximum Marks : 40

**Note :** Attempt *five* questions in all, selecting *one* question from each unit. Question No. 1 is compulsory and short answer type. All questions carry equal marks.

**Compulsory Question**

**1.** Answer the following :

- (a) What do you mean by Phylogeny?
- (b) Define Speciation.
- (c) Name the 6 kingdoms in which living organisms have been classified.
- (d) What is meant by Nucleoid and where it is found?
- (e) Define Chemoautotrophs.
- (f) Oxygen evolving bacteria are known by the name .....  
(fill the blank)
- (g) Why Bryophytes are known as "Amphibians of Plant Kingdom"?
- (h) What are Cryptogams? Include examples in your answer. (1×8=8)

### **UNIT-I**

2. Write notes on different levels of Biodiversity. Discuss the concept of Biological Species and Phylogenetic species giving their limitations. (8)
3. (a) Enlist major causes of speciation. What is its significance? (4)  
(b) Why we should minimize extinction and what are ways to do so ? (4)

### **UNIT-II**

4. (a) How classification of living organisms is important? (3)  
(b) Define Nomenclature. Discuss Principles of Plant Nomenclature. (5)
5. Give outline of main groups of micro organisms. Explain functioning of a typical cell of any micro-organism you have studied, with suitable diagrams. (8)

### **UNIT-III**

6. (a) Elaborate habitat range in Algae. What is their economic importance? (4)  
(b) Give characteristics and importance of yeast. (4)

7. Which micro-organisms are responsible for environmental toxins? Enlist some major toxins and human health problems associated with them. (8)

#### **UNIT-IV**

8. (a) Describe the habitat and ecological role of Bryophytes. (4)
- (b) What are major types of lichens? Discuss their ecological significance. (4)
9. Write a note on general characters of Gymnosperms. What is their economic importance? (8)
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