

B.Sc. CBCS Pattern Semester-VI  
**BIO1 - Biotechnology Paper-I : Environmental Biotechnology**

P. Pages : 2

Time : Three Hours



**GUG/W/23/13323**

Max. Marks : 50

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1. Give detail account on various types of water pollutants. 10

**OR**

a) Give an account on green-house effect. 2½

b) Write a note on eutrophication. 2½

c) Describe the sources of air pollution. 2½

d) Write a note on acid Rain. 2½

2. Describe various types of Biological waste water treatment methods. 10

**OR**

a) Discuss the concept of COD. 2½

b) Give the composition and types of waste water. 2½

c) Write a note on anaerobic digester. 2½

d) Discuss the treatment scheme of paper industry. 2½

3. Give the detail account on biodegradation of xenobiotic compounds in the environment. 10

**OR**

a) Describe the advantages and disadvantages of bioleaching. 2½

b) Explain the process of bioaccumulation. 2½

c) Explain the concept of xenobiotics. 2½

d) Describe the role of degradative plasmid in biodegradation. 2½

4. Describe carbon cycle in detail. 10

**OR**

a) Write a note on bacterial biofertilizer. 2½

b) Explain the role of nif-gene in nitrogen fixation. 2½

c) Write a note on integrated pest management. 2½

d) Describe the role of alcohol as biofuel. 2½

5. Solve **any ten** of the following.
- a) Write any two radioactive water pollutant. 1
  - b) What is ozone gas? 1
  - c) What is the need of environmental education? 1
  - d) Define BOD. 1
  - e) Write the concentration of Dissolved oxygen in fresh water. 1
  - f) What is industrial sewage? 1
  - g) Give the examples of biopesticides. 1
  - h) What is biomagnification? 1
  - i) Enlist two names of heavy metals in the environment. 1
  - j) What is symbiotic association? 1
  - k) Write the applications of biofertilizer. 1
  - l) What is VAM? 1

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