

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

P. Pages : 2

Time : Three Hours



GUG/S/25/13323

Max. Marks : 50

Notes : 1. All questions are compulsory and carries equal marks.

1. Define Environmental pollution and explain classification of pollutants in detail. **10**

OR

a) Write a brief note on Water pollution. **2½**

b) Explain in brief sources of air pollution. **2½**

c) Write a short note on Greenhouse effect. **2½**

d) Write a note on problems & need of environmental education. **2½**

2. Discuss the various methods used for biological waste water treatment. **10**

OR

a) Write a short note on COD. **2½**

b) Describe composition & types of waste water. **2½**

c) Write a short note on classification & types of waste water treatment. **2½**

d) Explain in brief treatment scheme for Sugar industries. **2½**

3. Describe the biodegradation of xenobiotics in detail. **10**

OR

a) Write a short note on bioaccumulation. **2½**

b) Write a note on bioleaching of copper. **2½**

c) Write a note on types of xenobiotics. **2½**

d) Describe the process of biomagnification. **2½**

4. Explain the types of biofertilizers in detail. **10**

OR

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| a) | Draw a flow chart of Sulphur cycle. | 2½ |
| b) | Write a short note on biofuel. | 2½ |
| c) | Write a brief note on symbiotic Nitrogen fixation. | 2½ |
| d) | Write a short note on Integrated pest management. | 2½ |

5. Solve any ten.

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| a) | Define pollution. | 1 |
| b) | What is ozone depletion. | 1 |
| c) | Define acid rain. | 1 |
| d) | Write down composition of waste water. | 1 |
| e) | Write down full form of BOD. | 1 |
| f) | Define sludge. | 1 |
| g) | Define xenobiotics. | 1 |
| h) | Define Bioremediation. | 1 |
| i) | Write down name of microorganism involved in bioleaching. | 1 |
| j) | Define biofuel. | 1 |
| k) | Write down one example of non-symbiotic nitrogen fixing bacteria. | 1 |
| l) | Define biopesticides. | 1 |
