

M.Sc. (Biotechnology) (CBCS Pattern) Semester-IV
PSBIT-113 - Paper-I : Environmental Biotechnology

P. Pages : 1

Time : Three Hours



GUG/W/24/11351

Max. Marks : 80

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- Notes : 1. All the questions are compulsory and carries equal marks.
2. Draw the diagram wherever it is necessary.

1. What is water pollution? Describe types of water pollution in detail. **16**

OR

Write a note on -

- a) Ozone depletion. **8**
- b) Eutrophication. **8**

2. Discuss various Abiotic and Biotic components of ecosystem. **16**

OR

Explain in brief -

- a) Structure of Ecosystem. **8**
- b) Concept of biomagnification and its effect. **8**

3. Explain the term 'Bio-energy' and add note on non-conventional sources of energy. **16**

OR

Write a note on -

- a) Sulphur cycle. **8**
- b) Explain how Biotechnology is useful in biofuel production. **8**

4. Describe the mechanism of nitrogen fixation and add note on nitrogenase enzyme. **16**

OR

Describe in brief -

- a) Fungi as biofertilizer. **8**
- b) Integrated pest management. **8**

5. Write a note on the following.

- a) Acid rain. **4**
- b) Degradative plasmids. **4**
- c) Biogas Plant. **4**
- d) Aquatic ferns as biofertilizers. **4**
