

M.Sc. (Biotechnology) (CBCS Pattern) Semester-IV  
**PSBIT-114 - Paper-II : Applied Environmental Biotechnology & Ecology**

P. Pages : 1

Time : Three Hours



**GUG/W/24/11352**

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw well labelled diagram wherever necessary.

- 1.** Write in details about measurement of water pollution by BOD & COD. **16**
- OR**
- a) Write a detailed note on laboratory methods for detecting pathogens in water. **8**
- b) Write a detailed note on IMVic test. **8**
- 2.** Give details about Biological methods of waste water treatment. **16**
- OR**
- a) Give the process involved in treatment at waste water from pulp & paper industry. **8**
- b) Write a detailed note on waste water treatment by Bio-films. **8**
- 3.** Describe in details about Bio-absorption and Bio-teaching of heavy metals. **16**
- OR**
- a) Describe the genetic aspects of heavy metal resistance in cyanobacteria & fungi. **8**
- b) Give details about process involved in biodegradation of hydrocarbons. **8**
- 4.** Explain the idea of forest conservation in details. **16**
- OR**
- a) Write a detailed note on Ecological aspects of mining. **8**
- b) Give details of Biodiversity conservation through Biotechnological methods. **8**
- 5.** Write a note on:
- a) Composition of waste water. **4**
- b) Rotating biological contactor. **4**
- c) Biomethylation of Elements. **4**
- d) Conservation of mineral resources. **4**

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