

M.Sc. (Microbiology) (NEP Pattern) Semester-II
**02MSCMB04 - Elective Paper-I : Microbial Methods for Environment
Management**

P. Pages : 1

Time : Three Hours



GUG/W/24/15409

Max. Marks : 80

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

1. Describe concept of biodeterioration. Explain biodeterioration of woods. **16**
- OR**
- i) Discuss in detail factors influencing eutrophication process. **8**
- ii) Describe biomagnifications of chlorinated hydrocarbons and pesticides. **8**
2. What is Biotransformation? Discuss mercury transformations and its applications. **16**
- OR**
- i) Give the account of bioleaching and describe leaching techniques. **8**
- ii) Discuss in detail biodegradation of plastics. **8**
3. Describe in details waste water management using activated sludge and trickling filter. **16**
- OR**
- i) Give the account concept of phytoremediation and applications. **8**
- ii) Discuss in detail rotary biological contractors. **8**
4. Describe in detail greenhouse effect and acid rain. **16**
- OR**
- i) Discuss in detail about global warming and climate change. **8**
- ii) Give an account on ozone depletion. **8**
5. Write a note on:
- i) Biomagnification **4**
- ii) Applications of leaching **4**
- iii) Discuss in detail aerated lagoons. **4**
- iv) Discuss acid mine drainage. **4**
