

M.Sc.(Microbiology) (CBCS Pattern) Semester - II  
**PSMBT-107 - Paper-III : Microbial Methods for Environmental Management**

P. Pages : 1

Time : Three Hours



**GUG/S/23/11218**

Max. Marks : 80

---

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

1. Describe the concept and consequences of biomagnifications of Pesticides. **16**
- OR**
- Write in detail about biodeterioration of pharmaceutical products. **16**
2. Describe the role of microorganisms in the biotransformation process of Mercury and write its applications. **16**
- OR**
- a) Describe the biodegradation of Plastic. **8**
- b) Describe the role of microbes in the bioleaching of copper. **8**
3. a) Describe the working mechanism of Activated Sludge method for waste water treatment. **8**
- b) Describe the principle and working mechanism of Rotary Biological Contactor. **8**
- OR**
- c) Describe the trickling filter method in waste water management. **8**
- d) Describe the working mechanism of fluidized bed reactor in waste water treatment. **8**
4. Describe in detailed about causes and effect of Globe warming on environment. **16**
- OR**
- a) Describe the concept of acid mine drainage and its impact on environment. **8**
- b) Discuss the impact and biotechnological approach of Acid Rain on Global environment. **8**
5. Write a note on-
- a) Factors influencing eutrophication **4**
- b) Bioleaching of ores **4**
- c) Stabilization Pond **4**
- d) Green House effect. **4**

\*\*\*\*\*