## M.Sc.(Biotechnology) CBCS Pattern Semester-IV

## PSBIT-114 - Paper-II: Applied Environmental Biotechnology & Ecology

P. Pages: 1 GUG/W/23/11352 Time: Three Hours Max. Marks: 80 Describe IMViC test in detail. 1. **16** OR a) What is chemical oxygen demand? How it is measured? 8 b) What are the different types of waste water? 8 2. Describe the activated sludge process and rotating biological contactors in details. 16 OR Give the brief account of trickling filter. 8 a) How is waste water treated by biofilms? b) 8 Give in detail the process of bioleaching of cadmium and mercury. **3.** 16 OR Describe the biomethylation of arsenic. 8 a) Give a brief account on genetic aspects of heavy metal resistance in cyanobacteria. 8 b) 4. Explain in detail the steps taken for the forest conservation. 16 OR Give the brief account on wildlife management figer reserve in India. 8 a) Write a note on ecological aspects of mining. b) 8 5. Give an overview on. a) Membrane filtration technique. 4 Give the treatment scheme for sugar industries. b) Explain the advantages of bioleaching. c) d) Give the account on terrestrial mineral resources. \*\*\*\*\*