## PSCENVT07 / PSENVT07 - Environmental Disaster and Environmental **Biotechnology** P. Pages: 1 GUG/S/23/11205 Time : Three Hours Max. Marks: 80 Notes: 1. All questions are compulsory and carry equal marks. Illustrate the answer with suitable examples and diagrams. 2. What is geological hazard? Explain floods and snow avalanches as environmental hazards. 1. 16 OR Explain drought with its causes and effects a) 8 Write a note on Disaster Management Authority of India. 8 b) 2. Describe classification of micro-organisms and their role in air, water and soil. 16 OR Discuss the techniques used for enrichment of culture. a) 8 Explain role of microbes in activated sludge process. 8 b) 3. Describe in brief role of micro-organisms in energy and biomass production. 16 OR Explain biotechnological approach of environmental pollution. 8 a) Discuss in-situ and ex-situ bioremediation in brief. b) 8 4. Explain research design w.r.t need, features and concept. 16 OR Describe need and types of sampling. 8 a) State the significance of report writing with its steps. b) 8 5. Write a note on earthquake resistance buildings. 4 a) b) State the importance of environmental microbiology. 4 What are biopesticides? 4 c) Explain basic principles of experimental designs. d) 4 \*\*\*\*\*

M.Sc.-I (Environmental Science) (CBCS Pattern) Semester - II

1