

**MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL**

**DEPARTMENT OF CHEMISTRY**

**B.Tech. - Semester II**

**SECTION: B**

**Mid Term Examination, May-2023**

**Date: 31.05.2023**

**Subject: Environmental Chemistry**

**Subject Code: CHY 107**

**Time: 90 minutes**

**Max. Marks: 20**

**Note: Attempt all questions**

1. Describe the extra steps required in the primary treatment process of industrial waste water when compared to the primary treatment process of domestic sewage. (1)
2. Compare trickling filter process with activated sludge process. (2)
3. Write briefly about sludge treatment and disposal. (2)
4. Write briefly about water content of soil. (2)
5. Write briefly about effects of noise pollutions. (2)
6. Describe one soil pollution case study. (2)
7. Write briefly about causes, effects and control measures of oil spillage and chemical water pollution. (2)
8. 40 ml of sewage sample was diluted to 1000 ml and equal volumes of this solution were filled in two BOD bottles. DO in one bottle was determined immediately and 200 ml of this solution required 48.7 ml of  $N/40 \text{ Na}_2\text{S}_2\text{O}_3$  solution. The sample in second BOD was incubated for 5 days and in DO determination, 200 ml of this solution required 2.3 ml of  $N/40 \text{ Na}_2\text{S}_2\text{O}_3$  solution. Calculate BOD of the sewage. (3)
9. Write briefly about sources, effects and control measures of any five types of soil pollutants. (4)