

M.Sc. (Part-II) (Environmental Science) (NEP Pattern) - Semester-III
PMENVT 11 - Paper-XI : Wastewater Treatment

P. Pages : 1

Time : Three Hours



GUG/W/24/15982

Max. Marks : 80

Note : All questions are compulsory and carry equal marks.

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| 1. | Discuss chemical methods for the analysis of sewage. | 16 |
| OR | | |
| | a) Explain the system of wastewater collection. | 8 |
| | b) Briefly explain the relative stability of the sewage. | 8 |
| 2. | Discuss the design of screen chambers and grit chambers. | 16 |
| OR | | |
| | a) Briefly explain the concept of mass load and detention time. | 8 |
| | b) Explain the maintenance of sewers. | 8 |
| 3. | Discuss the grit chamber wr.r.t. purpose, types, and grit disposal. | 16 |
| OR | | |
| | a) Explain working of the Detritus tank. | 8 |
| | b) Describe the necessity of the coagulation. | 8 |
| 4. | Discuss the Construction and working of the trickling filters. | 16 |
| OR | | |
| | a) Explain the biological treatment using a stabilization pond. | 8 |
| | b) Write a brief account of reverse osmosis. | 8 |
| 5. | a) Explain the fundamentals of wastewater. | 4 |
| | b) Explain the sludge drying bed. | 4 |
| | c) Write about different types of screens. | 4 |
| | d) Write a brief note on the disposal of sewage. | 4 |
