

M.Sc. (Part - II) (Environmental Science) (CBCS Pattern) Semester - III
PSCENVT10 -Core Paper-X : Wastewater Treatment

P. Pages : 1

Time : Three Hours



GUG/S/23/11261

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Illustrate the answers with suitable diagrams and examples.

1. Discuss chemical tests for analysis of sewage in detail. **16**
- OR**
- a) Explain the concept of wastewater treatment. **8**
- b) Describe in brief dry weather flow method. **8**
2. Discuss design of waste stabilization pond and trickling filter in biological unit. **16**
- OR**
- a) Explain the design of screen chamber. **8**
- b) Describe concept of mass load and detention time. **8**
3. Discuss briefly grit chamber w.r.t. its purpose, types and grit disposal. **16**
- OR**
- a) Explain necessity and principle of coagulation. **8**
- b) Write a short note on detritus tank. **8**
4. Explain theory, construction and working of contact beds. **16**
- OR**
- a) Explain aeration pond in wastewater treatment system. **8**
- b) Describe reverse osmosis as tertiary treatment of wastewater. **8**
5. a) Differentiate domestic and industrial wastes. **4**
- b) What are sludge-drying beds? **4**
- c) Write a note on skimming tank. **4**
- d) Explain SVI and SDI. **4**
