

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**M.Tech. Winter 2018 - 19 Examination**

**Semester: 1**  
**Subject Code: 203215134**  
**Subject Name: Environmental Geotechnology**

**Date: 13/12/2018**  
**Time: 10:30am to 01:00pm**  
**Total Marks: 60**

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**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1** A) Describe the changes occurred in municipal solid waste dump yard. (05)  
B) What are the principles of land-filling? (05)  
C) Describe important properties of clay minerals. (05)
- Q.2 Answer the following questions.** (Attempt any three) (Each five mark) (15)  
A) Give classification of solid wastes.  
B) Differentiate between above ground and below ground landfills.  
C) Explain the process of integrated solid waste management.  
D) Differentiate between SWM and ISWM.
- Q.3** A) Explain the soil water interaction with hydrological cycle. (07)  
B) Discuss the site selection criteria for land fill. (08)
- OR**
- B) Discuss the components of engineered landfills. (08)
- Q.4** A) What are the Applications of soil mineral analysis in geoenvironmental engineering? (07)
- OR**
- A) Which are different possible mechanisms of water adsorption? (07)  
B) Define soil water and Describe classification of soil water in detail. (08)