

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

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

**Date: 19/12/2019**  
**Time: 10:30am to 1:00pm**  
**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) What are the principles of land-filling? (05)  
B) Describe important properties of clay minerals. (05)  
C) Differentiate between SWM and ISWM. (05)
- Q.2 Answer the following questions.** (Attempt any three) (Each five mark) (15)  
A) What are the Applications of soil mineral analysis in geoenvironmental engineering?  
B) Describe the changes occurred in municipal solid waste dump yard.  
C) Give classification of the types of landfills.  
D) Give classification of solid wastes.
- Q.3** A) Discuss the components of engineered landfills. (07)  
B) Explain the soil water interaction with hydrological cycle. (08)
- OR**
- B) Discuss the site selection criteria for land fill. (08)
- Q.4** A) Enlist types of clay minerals. How they are formed? (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)