

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2290066

Roll No.

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B.TECH

Regular Theory Examination (Odd Sem - VII) 2016 -17

ENVIRONMENTAL GEOTECHNOLOGY

Time : 3 Hours

Max. Marks : 100

Note : Attempt **all** Section. If require any missing data; then choose suitably.

SECTION - A

1. Attempt all question in breif. (2×10=20)
- a. Define Aims of Environmental Geotechnology.
 - b. Write the Names of Environmental Cycle.
 - c. Write characteristics of Contaminated Soil.
 - d. How Dust affect the Environment.
 - e. Define Soil structure with neat Figure.
 - f. What do you understand bearing Capacity of Soil?
 - g. Define Mine tailing impoundments.
 - h. Write the name of Chemicals used in injection Process.
 - i. Define Sand witch method for waste disposal.
 - j. Write the use of Liners.

SECTION - B

2. **Attempt any three of the following :** (3×10=30)
- Discuss some important activities which are covered in Environmental Geotechnology.
 - Distinguish between Nitrogen Cycle and Carbon cycle with Figure.
 - What basic data would you need for identifying a Contaminated Site?
 - Explain the principles and various methods available under geophysical and electro - chemical Categories.
 - What is the Causes of the Sink - Hole of formation? Write advantages and Disadvantages of Sink hole.

SECTION - C

3. **Attempt any one part of the following :** (1×10=10)
- How the ecosystem related to environmental geotechnology? draw the structure of Environment.
 - Explains why the soil is important in Geo environmental Engineering?
4. **Attempt any one part of the following :** (1×10=10)
- Explain some ion exchange resins and what are the causes of resin fouling?
 - What are the objectives of contaminated site Characterization?

5. **Attempt any one part of the following:** (1×10=10)
- Define Following (i) Environmental Load (ii) Presumptive Bearing Pressure
 - Write the various environmental factors which affect the Pile Capacity.
6. **Attempt any one part of the following :** (1×10=10)
- Justify this statement with any three examples “Grout used for controlling Hazardous wastes”.
 - Explain what is the method of installation of Pile embedded length affect the resistance offered by a Loaded Pile?
7. **Attempt any one part of the following :** (1×10=10)
- What do you mean by the Liners? List the various advantages and disadvantages Clay Liners over a Compacted Clay Liners?
 - Discuss the how shear strength Parameters are very much important for calculating the Bearing capacity of foundation on Sanitary Land Fill?

