

27095

Name:.....

Reg.No:.....

**EIGHTH SEMESTER B-TECH (ENGINEERING) DEGREE EXAMINATION, MAY 2012**

**CE 04 804 C - GROUND IMPROVEMENT TECHNIQUES**

**Time: 3 hours**

**Max. Marks : 100**

*Answer all questions*

**Part A**

1. a) What are the different techniques of insitu densification.
- b) Evaluate the technique of vibratory probs.
- c) Explain the mechanism of lime column method in soil stabilization.
- d) Explain 'Slab jacking'.
- e) What are the difference between reinforced soil walls and soil nailed walls?
- f) Explain the load transfer mechanism of reinforced earth.
- g) Differentiate woven and non woven geotextile.
- h) Write a note on the damage and durability of geotextile.

(8 x 5 marks = 40 marks)

**Part B**

2. a) Discuss the importance of dynamic compaction.
- b) Describe the basic principles involved in stabilization of (i) sand (ii) clay.

OR

3. Explain the procedure of vibrofloatation for densifying cohesionless soils.
4. Describe the different steps involved in the process of soil stabilization using lime as additive.

OR

5. a) What is meant by grouting? What are the different methods of grouting.
- b) What are the different injection methods in grouting.
6. Explain with the help of a neat sketch, various elements of reinforced earth, stating requirements and functions of each element.

OR

7. Distinguish between anchored earth nailing and micro piles.
8. Write a detailed note on geotextile giving a list of various types of geotextile and the various applications.

OR

9. Explain the use of geotextile in (i) pavement (ii) clay embankments.

(4 x 15 marks = 60 marks)

\*\*\*\*\*