

Q 762

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

Seventh Semester

Branch : Civil Engineering

CE 010 706 L02 – GROUND IMPROVEMENT TECHNIQUES (Elective II) (CE)

(2010 Admissions)

[Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. Write brief note on vibroflotation of soil for soil stabilization.
2. Discuss Admixtures in cement stabilization.
3. Explain Viscosity of grouts.
4. Discuss the concept of earth reinforcement.
5. Define Geotextiles.

(5 × 3 = 15 marks)

Part B

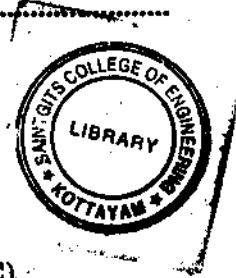
Answer all questions.

Each question carries 5 marks.

6. Write brief note on Sand drains.
7. Briefly explain Electrical stabilization.
8. Explain Rigidity and Thixotropy of grouts.
9. Discuss the merits and demerits of earth reinforced work.
10. Discuss the durability of geotextiles.

(5 × 5 = 25 marks)

Turn over



Part C

Answer all questions.

Each question carries 12 marks.

11. Briefly explain the mechanical stabilization of soil for ground improvement. List the merits and demerits of this method.

Or

12. Briefly explain the ground improvement using pre-loading with vertical drains in soft clays.
13. Explain the principle of chemical stabilization. Discuss the factors affecting soil cement mixing.

Or

14. Discuss the effect of lime on soil properties. Explain the soil condition for which lime is a stabilizer.
15. Discuss Stabilization grouting for underpinning. Explain grouting procedure.

Or

16. List different grouting material. Explain the selection of advantages and disadvantages of each grout material.
17. Explain in detail coherent gravity analysis.

Or

18. Explain the design theories of reinforced earth.
19. Explain Geotextiles as reinforcement and separator.

Or

20. Explain different applications of geotextiles.



(5 × 12 = 60 marks)