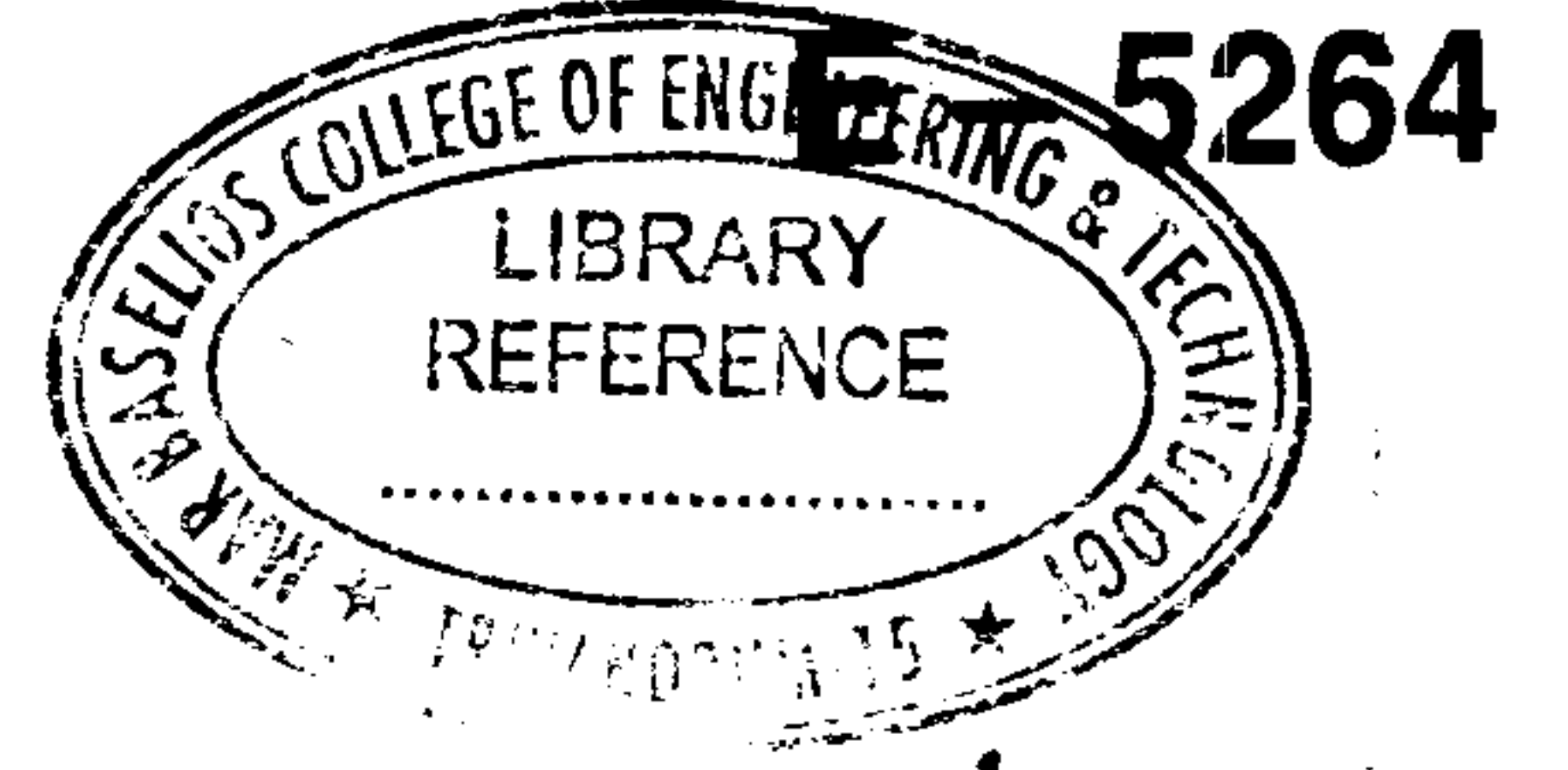




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Reg. No. :

Name :

**Seventh Semester B.Tech. Degree Examination, October 2018
(2013 Scheme)**

13.705.3 : GROUND IMPROVEMENT (C) (Elective – II)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions :

1. What basic principles are involved in ground improvement techniques of cohesive and cohesionless soil ?
2. What is thermal method of stabilisation ?
3. What is reinforced earth ?
4. What are basic functions of geotextiles ?
5. Differentiate between suspension grout and solution grout. **(5×4=20 Marks)**

PART – B

Answer **any one full** question from **each** Module.

Module – I

6. Explain electro osmosis method of ground improvement. **20**
7. List the different methods of dewatering and ground water lowering methods. Explain the well point system of dewatering. **20**

Module – II

8. What is mechanical stabilisation ? Explain dynamic compaction method. **20**
9. What are stone columns ? Explain the construction methods of stone columns ? **20**

P.T.O.



Module – III

- 10. a) Explain load transfer mechanism of reinforced earth.
- b) Explain application of geotextiles in :
 - i) Road construction
 - ii) Embankment construction. 20
- 11. Describe the method of construction of soil nailing. What are the advantages and disadvantages of soil nailing ? 20

Module – IV

- 12. What are the basic functions of grouting ? Briefly explain various application of grouting. 20
 - 13. a) Explain compaction grouting and list out its advantages and disadvantages.
 - b) Briefly explain basic items required for a grouting plant and their functions. How mixing is done in the plant ? 20
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