CBCS Scheme

USN | | | | | | | | | | | 15CV654

Sixth Semester B.E. Degree Examination _____

Time : 3Hrs **Max Marks:80**

Note: 1) Answer FIVE full questions, choosing one full question from each module.
2) Assume missing data if any, suitably.

Module – 1

1. a. Explain the various objectives of ground improvement. (08 Marks)
   b. What are the factors which govern the choice of method of ground improvement? (08 Marks)

OR

2. a. Briefly discuss the various types of soil deposits in India. (08 Marks)
   b. Write a note on field compaction control and specification. (08 marks)

Module - 2

3. a. With the help of neat sketches describe the working of single stage and multi stage well point systems of dewatering (08 marks)
   b. Explain different methods of control of seepage of ground water. (08 Marks)

OR

4. a. What are drains? Explain different types of drains. (08 marks)
   b. Describe the compaction of embankment by the method of preloading. (08 marks)

Module – 3

5. a. What is cement stabilisation of soils? Explain the procedure of cement stabilisation. (08 marks)
   b. Discuss the effect of cement stabilisation on permeability, swelling, shrinkage and strength characteristics of soils. (08 marks)

OR

6. a. What is lime stabilisation of soils? Explain with reactions and write a note on the engineering benefits of it. (08 marks)
   b. Write a note on tar or asphalt in stabilisation of soils. (08 marks)

Module – 4

7. a. Describe different methods of vibro-compaction done in cohesion-less soils. (08 marks)
   b. Explain the construction sequence of stone columns for ground improvement with the help of neat sketches. (08 marks)

OR

8. a. Explain grouting and its effects on soils. Give applications of grouting. (08 marks)
   b. Describe different methods of grouting in brief. (08 marks)

Module –5

9. a. Briefly discuss the applications of geosynthetics. (08 marks)
   b. With the help of neat sketches briefly discuss various functions of geosynthetics. (08 marks)

OR

10. a. Explain different types of in-situ columns used to improve the bearing capacity of weak soils. (08 marks)
    b. Differentiate between rock anchors, rock bolting and soil nailing. (08 marks)