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**Question Paper Code: 49110**

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Elective

Civil Engineering

14UCE910 – GROUND IMPROVEMENT TECHNIQUE

(Regulation 2014)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

**(Answer any ten of the following questions)**

1. What is the role of ground improvement?
2. What are the methods used in ground improvement?
3. What is the objective of increase of drainage path in the soil?
4. What are filter wells?
5. What is meant by vibro flotation? what is its advantages?
6. What are stone columns?
7. Enlist the advantages of soil reinforcement for the weak soil.
8. What are the uses of geo-synthetics in paved roads?
9. Enumerate the steps required to stabilize the soil with lime.
10. What soils are treated by jet grouting?
11. Write a note on black cotton soil..
12. Define dewatering.
13. What is dynamic consolidation?
14. What do you mean by soil reinforcement? .

15. What are the methods adopted in construction of stabilized roads?

PART – B (3 x 10= 30 Marks)

**(Answer any three of the following questions)**

16. How will you select the suitable ground improvement technique based on soil conditions. (10)
17. Explain the properties and application of flownet. (10)
18. Explain in detail the method of dynamic compaction of cohesionless and dynamic consolidation of cohesive soil. (10)
19. Explain in detail about the application of geotextiles as seponation with the help of neat sketches. (10)
20. Write the case study of stabilization of expansive soil. (10)