

School of Engineering**B.TECH Civil Engineering
Semester End Examination - Jun 2024****Duration : 180 Minutes
Max Marks : 100****Sem VI - G1UA604T - Ground Improvement Techniques**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

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| 1) | Define Liquefaction | K1(2) |
| 2) | Describe about the closed and horizontal drains | K2(4) |
| 3) | Is preloading method really a hydraulic modification of the ground or should it be discussed as a mechanical modification? Explain | K2(6) |
| 4) | Estimate the time predictions of initial compression from test fills. | K3(9) |
| 5) | Illustrate the design parameters and design procedures for overexcavation and replacement | K3(9) |
| 6) | Explain the importance of grouting and elaborate some of the injection methods | K5(10) |
| 7) | Illustrate the deep well drainage systems with necessary figures. | K4(12) |
| 8) | Summarize the factors for selecting ground improvement method with neat sketches according to the soil size types. | K5(15) |
| 9) | Explain geotextiles and its design considerations while using geotextiles in a) Retaining walls b) Slope | K5(15) |
| 10) | Elaborate in detail the method of construction of stone column and state how it is advantageous over lime column? | K6(18) |