

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2021

Course: Program Elective – GIT
Program: B Tech Civil Engineering
Course Code: CIVL 4022
Instructions:

Semester: VIII
Time 03 hrs.
Max. Marks: 100

SECTION A

S. No.		Marks	CO
Q 1	Enlist five major problematic soils.	5	CO1
Q 2	<ul style="list-style-type: none"> • Preloading or pre-compression is the process of placing additional _____ stress on a _____ soil to remove _____ water over time. • The pore water dissipation reduces the total volume causing _____. • Surcharging is an _____ method for ground improvement. 	5	CO2
Q 3	Name the different methods of grout injection.	5	CO3
Q 4	List five different types of geosynthetics.	5	CO4
Q 5	Name any five ground improvement techniques.	5	CO1
Q 6	The compaction is process of _____ density of soil, by means of suitable _____ device. It is predominantly adopted for _____ soils and also however _____ soil can be also compacted by _____.	5	CO2

SECTION B

Q 7	Describe the role of ground improvement in foundation engineering.	10	CO1
Q 8	Explain the necessity, merits and demerits of deep well point dewatering system.	10	CO2
Q 9	Differentiate between suspension and solution grouts.	10	CO3
Q 10	‘Earth anchors have variety of applications in Civil Engineering’ – Justify the statement	10	CO4
Q 11	Describe the merits and demerits of permeation grouting.	10	CO3

SECTION C

Q 12	a) Draw neat sketches of types of rock bolts and explain their applications. [10] b) Explain the various functions of geosynthetics. [10]	20	CO4
------	--	----	-----