

Gokaraju Rangaraju Institute of Engineering and Technology

(Autonomous)

Bachupally, Kukatpally, Hyderabad – 500 090

Direct Internal CO Attainments

[illegible]

Name of the Programme		B.Tech							
Course Code		GR17A3010		Section		A & B			
Mid-II									
Q.No 1(a)	Q.No 1(b)	Q.No 2(a)	Q.No 2(b)	Q.No 3(a)	Q.No 3(b)				Objective Marks
3	4	5	6	2	7				2,3,4,5,6,7
2.5	2.5	2.5	2.5	2.5	2.5				10

Assignment Marks					Assessment
I	II	III	IV	V	Marks
1	2	3	4,5	6,7	1,2,3,4,5,6,7
5	5	5	5	5	5

S.No/Roll No. *Note :* Enter Marks Between **Two Green rows**. *Another Note :* **Additional Columns if Required** should be inserted **after column H** and appropriately rename the Q. Nos. For Calculations consult Departments CO-PO Incharge

First Record / 1				1.5					5
2				2					5
3						1.5			4
4	0.5								4
5				1.5	1	0.5			2
6		1		1.5	1	1			2
7	0.5	0.5				0.5			5
8	2.5	2.5	2.5	2.5	2.5	2.5		0.5	5
9	0.5	0.5		1	2	2.5			4
10				1.5				1	2
11		1		1		1			2
12					2.5		1	1	3
13	0.5	0.5			1	2.5			1
14	0.5	0.5		1	0.5	1.5			2
15				2.5	0.5	2.5	0.5		3
16					1.5				3
17	2.5	1			2	1	1	0.5	3
18					2	2.5	0.5	0.5	3
19			0.5	1.5	1.5	2.5	2	1.5	1
20					1.5	2.5	1	0.5	3
21	0.5	0.5		0.5	1.5	1.5			4
22	1.5				1				3
23	2.5	2.5			2	1.5	1.5	1	3
24	1.5				1				2
25					1	1	1	0.5	1
26		1		1.5	1	2.5		1.5	3
27					1	1.5			3
28				2		0.5	0.5	0.5	3
29				2.5	2.5	2.5	2.5	1.5	3
30				2.5	1				2
31			0.5		1			1	2
32	1	0.5		0.5	2	2.5			3
33	0.5				2.5				2
34	2.5	1.5		2.5			2.5	2.5	3
35		2		1					2
36	0.5	1		0.5	2	1.5			4
37				2.5		2.5			1
38		0.5							4
39				2.5	1				2
40	2.5	2			2	1.5	1	1	3
41		1			2.5	2.5	0.5	1.5	4
42		1.5	2	1	1.5	2.5			4
43	0.5				1				4
44				1	2	2	1.5		5
45					1				4
46	0.5	0.5		0.5	2.5	1.5	2.5	1	3
47	2.5	1.5		0.5	2	2.5	2.5	2.5	5
48					1	2.5		0.5	1
49				2.5	2.5	2	1	2.5	4
50		0.5		0.5	1.5	2.5	0.5	1	4
51	0.5			2.5	1	2.5			1

	2.5	1	2.5				7
1		2	2.5		1		10
		1	2.5	2.5	0.5		10
	2.5	2	0.5				10
		1	2.5	2.5	1.5		10
		1	2.5	2.5	1.5		10
0.5	2.5			2	1.5		6
2	2.5			2	1.5		10
2	2.5	1	2.5				10
		1	2.5	2	2		10
		1	2.5	2	1.5		10
2.5	2.5	2.5					10
		1	2.5	2.5			10
1.5	2.5	1					9
	2.5	2.5	2.5				10
1.5	2.5	1	1.5				8
1	1.5	1	2.5	2.5	2.5		10
		2.5	2	2.5	2		9
2.5	2.5			2.5	2.5		10
		1	2.5	2.5	2		10
		1	2.5	2	2		10
		2.5		2.5	1.5		7
2.5	2.5	2					10
2.5	2.5			2.5	1.5		6
2.5	2.5	1	2.5				10
1.5	2			1			10
		1	2.5	2	2.5		10
		1	2.5	2.5			10
		1	2.5	2	2		10
		1	2		2.5		10
2.5	2.5	2.5	2				10
A	A	A	A	A	A		A
2.5	2.5	2.5	2.5				2
			2	2.5			10
2.5		2	2.5	2.5	1		10
2	2.5			2.5	2		10
		1	2.5	1.5	2		10
2.5	2.5			1.5	1.5		6
2.5	2.5			2.5	1.5		6
		1	1.5	1.5	2		9
2.5	2.5			2.5	2.5		9
		1.5	2	2.5	1		7
		1	2.5	2	2		10
2.5		1	2.5	2.5			10
2.5	2.5	1	2				10
2.5	2.5	2.5	2.5				9
2.5	2.5	2.5	2.5				10
		1	2.5	2.5	2.5		10
2.5		1	2.5	2.5			10
2.5	2.5	2.5					10
		1	2.5	2.5	1		8

[illegible]

123	1.5	2.5		2.5	2.5	2.5	2.5	1.5	4		1.5	2	1	2.5	2.5	2.5			10		5	5	5	5	5	5	5
124				1	1.5	2.5	1	2	3				2.5	0.5	1.5	0.5			10		5	5	5	5	5	5	5
125				2.5	1	1	1.5	1.5	2				2		2.5	1			8		5	5	5	5	5	5	5
126				2.5	1	1	2	1	4				2.5	2.5	1	2.5			6		3	3	3	3	3	3	5
127	2.5	2.5			2.5	2.5	2.5	2.5	5				2.5	2	1.5	2.5			10		5	5	5	5	5	5	5
128	2.5	2.5	1.5	1.5	2	2.5			3				2.5	2.5	2				8		5	5	5	5	5	5	5
129	1.5	2.5	2.5	1.5	2	2.5	2	2.5	4				2.5	2.5	2.5	2.5			9		5	5	5	5	5	5	5
130	1.5	1.5	2.5	2.5	1.5	2.5			3				2.5	2.5	1.5	2.5			8		3	3	3	3	3	3	5
131	2.5	2		1.5	1	2.5	2.5	1.5	3				1.5	1	2	2.5	2		10		5	5	5	5	5	5	5
132					0.5	1.5	0.5	1.5	4				1.5		1.5	2.5			7		5	5	5	5	5	5	5
133				1.5	1	1.5	1	1	3				2	2	2	2.5			9		5	5	5	5	5	5	5
134	1			1	1.5				3				2	1		2	1		8		5	5	5	5	5	5	5
135	1.5	1		1	2	2.5	2	1.5	3				2	1.5	2.5	2.5			9		5	5	5	5	5	5	5
136				1.5	2				3				1.5	2	1.5	2			9		5	5	5	5	5	5	5
137				0.5	1	1		0.5	3				1.5	2	1				8		5	5	5	5	5	5	5
138		2			0.5	1			2						1	0.5	1.5		9		3	3	3	3	3	3	5
Last Record		0.5		1				0.5	3				1.5	2.5	1.5				8		5	5	5	5	5	5	5

if your class strength is > 60 then *insert rows above the green row(last record)* , Similarly *delete the empty rows above green row* if the class strenght is < 60)

Total number of students appeared for the examination (NST)	139	139	139	139	139	139	139	139	139		137	137	137	137	137	137			137		139	139	139	139	139	139	139
Total number of students attempted the question (NSA)	55	58	17	74	110	93	61	70	137		89	89	114	98	70	60			137		139	139	139	139	139	139	139
Attempt % (TAP) = (NSA/NST)*100	39.57	41.73	12.23	53.24	79.14	66.91	43.88	50.36	98.56		64.96	64.96	83.21	71.53	51.09	43.80			100.00		100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total number of Students who got more than 60% marks (NSM)	34	44	10	60	98	86	50	58	104		87	89	114	95	70	57			132		139	139	139	139	139	139	139
Attainment % (TMP) = (NSM/NSA)*100	61.82	75.86	58.82	81.08	89.09	92.47	81.97	82.86	75.91		97.75	100.00	100.00	96.94	100.00	95.00			96.35		100.00	100.00	100.00	100.00	100.00	100.00	100.00
Score(S)	3	3	2	3	3	3	3	3	3		3	3	3	3	3	3			3		3	3	3	3	3	3	3

Note : CO attainment is considered to be zero if the attempt % is less than 30%

CO Validation	1	3	2	1	2	4	4	3	1,2, 3,4		3	4	5	6	2	7			2,3,4,5,6,7		1	2	3	4,5	6,7	1,2,3,4,5,6,7
Course Outcome	CO1	CO3	CO2	CO1	CO2	CO4	CO4	CO3	CO1,CO2, CO 3,CO4		CO3	CO4	CO5	CO6	CO2	CO7			CO2,CO3, CO4,CO5, CO6,CO7		CO1	CO2	CO3	CO4,CO5	CO6,CO7	CO1,CO2,CO3,CO4,CO5,CO6,CO7
Marks (Y)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5		2.5	2.5	2.5	2.5	2.5	2.5			10		5	5	5	5	5	5
No. of COs Shared (Z)	1	1	1	1	1	1	1	1	4		1	1	1	1	1	1			6		1	1	1	2	2	7
Y/Z	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.25		2.5	2.5	2.5	2.5	2.5	2.5			1.66667		5	5	5	2.5	2.5	0.714285714
S*Y/Z	7.5	7.5	5	7.5	7.5	7.5	7.5	7.5	3.75		7.5	7.5	7.5	7.5	7.5	7.5			5		15	15	15	7.5	7.5	2.142857143

CO1	1	0	0	1	0	0	0	0	1		0	0	0	0	0	0			0		1	0	0	0	0	1
CO2	0	0	1	0	1	0	0	0	1		0	0	0	0	1	0			1		0	1	0	0	0	1
CO3	0	1	0	0	0	0	0	1	0		1	0	0	0	0	0			1		0	0	1	0	0	1
CO4	0	0	0	0	0	1	1	0	1		0	1	0	0	0	0			1		0	0	0	1	0	1
CO5	0	0	0	0	0	0	0	0	0		0	0	1	0	0	0			1		0	0	0	1	0	1
CO6	0	0	0	0	0	0	0	0	0		0	0	0	1	0	0			1		0	0	0	0	1	1
CO7	0	0	0	0	0	0	0	0	0		0	0	0	0	0	1			1		0	0	0	0	1	1

Weighted Average for Attainment relevance (Internal CODn)	CO1	CO2	CO3	CO4	CO5	CO6	CO7
	3.00	2.85	3.00	3.00	3.00	3.00	3.00

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!! Caution !! For CO Values < 2.1 should be justified with Remedial Action Report.



Gokaraju Rangaraju Institute of Engineering and Technology

(Autonomous)

Bachupally, Kukatpally, Hyderabad – 500 090

Indirect CO Attainments

Academic Year	2019-20
Year - Semester	II Sem

Department	Civil Engineering
Course Name :	Geotechnical Engineering - I

Name of the Programme	B.Tech
Course Code	GR17A3010

Section	A & B
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Course Outcomes survey on Scale 1 (Low) to 5 (High)							
Enter Course Outcomes →	Identify basic Engineering properties of soil and relate them with Civil Engineering practices.	Evaluate various experiments to determine the geotechnical properties of soil.	Identify, formulate and solve various problems in geotechnical engineering.	Analyse the mechanism and behavior of soil under various field situations.	Identify field equipment used in improving soil properties.	Articulate importance of extensive research in geotechnical engineering.	Analyze soil mechanics for development of construction sites both technically and economically.
CO Number → 1,2,3,4,5,6,7	1	2	3	4	5	6	7
Marks →	5	5	5	5	5	5	5
S.No/Roll No.	Note : Enter Marks Between Two Green rows.						
First Record / 1	5	5	5	5	5	5	5
2	5	4	4	4	4	4	2
3	5	5	5	5	5	5	5
4	5	4	2	2	2	2	2
5	5	4	4	4	4	4	1
6	5	4	4	4	4	4	1
7	5	5	5	5	5	5	1
8	5	5	5	5	5	5	1
9	5	5	5	5	5	5	1
10	5	5	5	5	5	5	1
11	5	5	5	5	5	5	4
12	5	2	3	2	2	5	4
13	5	5	5	2	2	5	4
14	5	5	5	2	2	5	4
15	5	5	5	2	2	5	4
16	5	5	5	2	2	5	4
17	2	5	5	2	5	5	4
18	5	5	3	2	5	5	4
19	2	2	5	2	5	5	4
20	5	5	5	5	2	5	4
21	2	5	5	5	2	5	4
22	5	5	3	5	1	5	4
23	2	5	5	5	1	5	5
24	2	5	3	5	1	5	2
25	2	5	5	5	1	5	2
26	5	5	5	5	5	5	2
27	5	5	5	5	5	5	2
28	5	5	5	5	5	5	2
29	2	5	5	5	5	5	2
30	5	5	5	5	5	5	2
31	5	5	5	5	5	5	2
32	4	4	4	4	3	2	1
33	4	4	4	4	3	2	1
34	4	4	4	4	3	2	1
35	4	4	4	4	3	2	1
36	4	4	4	4	3	2	1
37	4	4	4	4	3	2	3
38	4	4	4	4	3	2	3
39	4	4	4	4	3	2	3
40	4	4	4	4	3	2	3
41	4	4	4	4	3	2	3
42	4	4	4	4	3	5	1
43	4	4	4	4	3	5	1
44	4	4	4	4	1	5	1
45	4	4	4	4	1	1	1
46	4	4	4	4	1	1	1
47	4	4	4	4	1	1	2
48	4	4	4	4	1	5	4
49	5	5	5	5	5	5	5
50	5	4	4	4	4	4	2
51	5	5	5	5	5	5	5
52	5	4	2	2	2	2	2
53	5	4	4	4	4	4	1
54	5	4	4	4	4	4	1
55	5	5	5	5	5	5	1
56	5	5	5	5	5	5	1
57	5	5	5	5	5	5	1
58	5	5	5	5	5	5	1
59	5	5	5	5	5	5	4
60	5	2	3	2	2	5	4
61	5	5	5	2	2	5	4
62	5	5	5	2	2	5	4
63	5	5	5	2	2	5	4
64	5	5	5	2	2	5	4
65	2	5	5	2	5	5	4
66	5	5	3	2	5	5	4
67	2	2	5	2	5	5	4

68	5	5	5	5	2	5	4
69	2	5	5	5	2	5	4
70	5	5	3	5	1	5	4
71	2	5	5	5	1	5	5
72	2	5	3	5	1	5	2
73	2	5	5	5	1	5	2
74	5	5	5	5	5	5	2
75	5	5	5	5	5	5	2
76	5	5	5	5	5	5	2
77	2	5	5	5	5	5	2
78	5	5	5	5	5	5	2
79	5	5	5	5	5	5	2
80	4	4	4	4	3	2	3
81	4	4	4	4	3	2	3
82	4	4	4	4	3	2	3
83	4	4	4	4	3	2	3
84	4	4	4	4	3	2	1
85	4	4	4	4	3	2	3
86	4	4	4	4	3	2	3
87	4	4	4	4	3	2	3
88	4	4	4	4	3	2	3
89	4	4	4	4	3	2	3
90	4	4	4	4	4	5	4
91	4	4	4	4	4	5	4
92	4	4	4	4	4	5	4
93	4	4	4	4	4	1	4
94	4	4	4	4	4	1	1
95	4	4	4	4	1	1	2
96	4	4	4	4	1	5	4
97	5	5	5	5	4	5	4
98	2	5	5	5	2	5	4
99	5	5	3	5	1	5	4
100	5	5	5	5	4	5	4
101	2	5	5	5	2	5	4
102	5	5	3	5	4	5	4
103	5	5	5	5	4	5	4
104	2	5	5	5	2	5	4
105	5	5	3	5	4	5	4
106	5	5	5	5	2	5	4
107	2	5	5	5	2	5	4
108	5	5	3	5	5	5	4
109	5	5	5	5	2	5	4
110	2	5	5	5	5	5	4
111	5	5	3	5	1	5	4
112	5	5	5	5	2	5	4
113	2	5	5	5	2	5	4
114	5	5	3	5	5	5	4
115	5	5	5	5	2	5	4
116	2	5	5	5	2	5	4
117	5	5	3	5	5	5	4
118	5	5	5	5	2	5	4
119	2	5	5	5	2	5	4
120	5	5	3	5	5	5	4
121	5	5	5	5	4	5	4
122	2	5	5	5	4	5	4
123	5	5	3	5	5	5	4
124	2	5	5	5	2	5	4
125	5	5	3	5	5	5	4
126	5	5	5	5	2	5	4
127	2	5	5	5	4	5	4
128	5	5	5	5	4	5	4
129	2	5	5	5	2	5	4
Last Record	5	5	3	5	1	5	4
If your class strength is > 60 then insert rows above the green row (Last Record) , Similarly delete the empty rows above green row if the class strenght is < 60)							
Total number of students appeared for the examination (NST)	130	130	130	130	130	130	130
Total number of students attempted the question (NSA)	130	130	130	130	130	130	130
Attempt % (TAP) = (NSA/NST)*100	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total number of Students who got more than 60% marks (NSM)	104	126	128	112	81	102	84
Attainment % (TMP) = (NSM/NSA)*100	80.00	96.92	98.46	86.15	62.31	78.46	64.62
Score(S)	3	3	3	3	3	3	3

CO attainment is considered zero if the attempt % is less than 30%

Indirect CO (COIn)	CO1	CO2	CO3	CO4	CO5	CO6	CO7
	3	3	3	3	3	3	3

!! Caution !! For CO Values < 2.1 should be justified with Remedial Action Report.



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Bachupally, Kukatpally, Hyderabad – 500 090

Direct External CO Attainment

Academic Year	2019-20	Department		Civil Engineering				Name of the Programme		B.Tech								
Year - Semester	II Sem	Course Name :		Geotechnical Engineering - I				Course Code		GR17A3010				Section		A & B		
		Part A										Part B						
	Q.No 1A Marks	Q.No 1B Marks	Q.No 2A Marks	Q.No 2B Marks	Q.No 3A Marks	Q.No 3B Marks	Q.No 4A Marks	Q.No 4B Marks	Q.No 5A Marks	Q.No 5B Marks	Q.No 6 Marks	Q.No 7A Marks	Q.No 7B Marks	Q.No 8A Marks	Q.No 8B Marks			
Enter CO Number → 1,2,3,4,5,6,7	1	1	2	4	4	6	4	5	3	6	2	3	3	7	2			
Marks →	7	7	7	7	6	8	4	10	7	7	14	7	7	8	6			
S.No/Roll No.	Note : Enter Marks Between Two Green rows. Another Note : Additional Columns if Required should be inserted after column H and appropriately rename the Q. Nos. For Calculations consult Departments CO-PO Incharge																	
First Record / 1	1	0	2	1			4		1	6	4			6				
2	5	7			6	6					14	6	5	6	6			
3	4	7			6	6	2	6			12			6	6			
4	5	7	7	5	5	7					14			6	6			
5	5	7			6	6	2	6			12			6	6			
6	5	7	5	5	5	5					12			6	6			
7	6	7	5		6	6					12	6	6	6	6			
8	5	2			4	6			2	5		6	6	6	6			
9			4	4	4	6	3	6				6	4	5	2			
10	3	7	4	5	5	5	3	6	8					4	2			
11					5	5	2	6			12	3	3	5	2			
12					4	4	2	6			3	5	5	4	2			
13	2	6		5	4	4	2	5				4	4	4	3			
14	4	1			4	4	1	3			5			6	3			
15	6	6	5	6	5	6					12	7	7	6	6			
16	5	7	6	6	6	6						7	7	6	5			
17	0		0						0									
18	5	7					2	6			12	7	7	6	6			
19							3							0				
20	4	1			5	5	2	6			6	4	2	4	2			
21	6	7	7	6	3		3	7			0	6	6	6	6			
22			5	5			2	6			12	6	6	6	6			
23	5	7			5	5			5	7		7	7	6	6			
24	5	7	7	3	5	3					4	7	7	5	6			
25					5	5	3	6			6	4	4	4	2			
26	5	7			6	6	3	8			14	7	5	6	5			
27	4	7			5	5		5			8	7	3	5	5			
28	4	0	5	0	2	2	1	4		5	8	0						
29				4	3	4	2	5			12	4	5	4	3			
30	0	7			5	5	2	7			12	4	4	6	6			
31	6	7	5	5			3	8				7	7	6	6			
32					5	5	3	5			6	5	5	5	5			
33			6	6	5	5	3	6				7	3	7	6			
34					4	6		5			12	6	7	6	6			
35				6	5	5					6	4	4	3	5			
36					5	5	2	6			6	4	7	6	6			
37	3	3						0			8			6	0			
38	4	7	5	5	5	6	2	5						6	6			
39	5	7	4	5	6	5						6	6	6	6			
40	2	2			4	4			3	6	8	4	4	5	3			
41	5	7	6	4			2	5	6	4		7	7	6	6			
42	6	7	5	5	5	5	4	6			14			6	6			
43		4		5	5	5	3	6		6	8			6	5			
44	4	3			4	4	2	5	0	2		4	4	4	4			
45	4	2			5	5		6			8	4	4					
46	3				5	5					12	5	5	3	3			
47	5	5	5	5	5	6	4	6	0			6	6	6	6			
48	2	2	6	6	6	6					14	7	7	6	4			
49			4	3	5	7	4	5	4	6		5	5	3	2			
50	4	7	4	0	4	3	3	3		4		7	3	4	4			
51	4		3	3	3	3			0	0		6	6	6	4			
52	1	2	0	0	2	2	0	0	2	2		1	1					
53	0	0			5	6	2	5				5	5	6	0			
54					6	6	2	6	0	5	3	4	4	5	2			
55	3	0			5	5					6	4	4	6	2			
56	6	7	4	5					5		12	6	7	5	6			
57	5	7			5	7	2	4				7	5	6	4			
58	4	7			5	5	2	4			6	5	5	3				
59					5	5	2	6			5	7	7	5	2			
60					5	5	3	3			10	4	4	1	0			
61			2	4	4	4					10	4	4	6	6			
62	5	7	5	5	5	5	2	5	0	5		5	5					
63			5		6	6					14	5	5	6	2			
64			0	4	7	2	4			0	8			6				
65	0	0		4	4	4	2				12			6	4			
66	0	0		1	0	2	2	3				0	0	2	0			
67	4	7	5	5	5	5		0	5		12			6	6			
68					3	3	2	6			8	6	4	6	5			
69	4	7			3	5	2	5			10	6	5					
70	3	7	0	2	4	4	1	4						6	1			
71		5		5	5	6	2	6		5		0	0	5				
72	5	5	0		0	3	0	0			0			6				

73					6	5	3	6			7	0		4	2		
74	3	2	3	2	6	0	2	3	0		6	7	4				
75					5	5	4	6			8	4	7	5			
76			0	2	4	4	2	5		0	2						
77	0		0														
78	4	7		4		4					10	4	4	5			
79	3	7			4	4	2	4		0		4	4	5	0		
80	6	7			4	6	2	7				6	6	6	6		
81	4	7					3	8			12	7	7	6	6		
82					2	2	1	1									
83	2	7	4	5	4	6	2	6				5	5	6	4		
84	4	6	4	1	5	5					12	7	5	6	5		
85			0	4	5	5	3	6			8	5	5				
86						2	0	4	0		2	2	2	3	0		
87					4	4	3	6			10	7	5	6	3		
88	6	7			6	4	2	6			14	6	6				
89					5	5	3	6			4	3	2	6	4		
90	5	1			4	0						5	5	4	2		
91	2	7			5	6	0	3			4			4	0		
92	4		5	4	4	4						5	6	6	6		
93					6	6	4	4			10	7	7	6	2		
94					5	5	3	6			12	6	5	6	6		
95			5	5	2	6					12	7	7	6	0		
96	0	7			4	4	2	4			14	5	5	6	2		
97	2	2	4	5	5	5	3	6			8	5	4	6	4		
98	4	7	4	5	5	5					14	7	7	5	6		
99	4	7			5	5					12	4	4	6	4		
100					5	5	3	6		4		4	4	2	0		
101	4	7					1	4	3	4	6	7	3	4	3		
102	0				4	4	3	3	4	0	0			2	0		
103	5	7	3		5	5					12	7	7	6	6		
104				1	5	5		1			12	2	2	4	1		
105	4	7	2	4	4	6					12	3	3				
106	4	0		2	3	3	0	2		5	10			3	3		
107	3	1			3	5	2	4			12	4	4	5	5		
108			4	4	3	4					6	5	5	6	6		
109					5	5			0	2	6	4	4	4	2		
110				4	5	5	2	5			7			6	5		
111		7			6	6				4		6	7	6	4		
112					5	6	4	6			12	7	7	7	6		
113	0	0		2	4	3						3	0	3	0		
114			4	6	6	7	4	7				5	7	5	5		
115	0	7			4		3	5			7			4	3		
116			0	5	4	2	0	4		2				4			
117	0	0			5	7	1	5				5	5	4			
118	4	7	7	5	2						7	7	1	5	4		
119	2	0	0	2	0	1	0	2			0			0	1		
120	4	7	4	4	4							7	4	6	4		
121	2				2	5	2	4			5	7	7	6	3		
122						1			0	0							
123				1	0			3			0			3	0		
124	4		4		4	4	2	5				7	4				
125	5	7	7	7	6	6						7	7	6	4		
126	3	7			4	3		5			9			6	4		
127	4	2			4	4	2	5			7	4	4				
128	5	7			4	6	3	6			12	4	5	6	5		
129	4	7			6	6	2	6			10	7	4	5	5		
130	4	3			6	6	4	6			10	7	4	6	5		
131			4	6	6	7	3	9				7	7	6	5		
132			2	5	5	6	3	5				5	5	7			
133	4	3	4	3	5	6	3	4				4	4				
134	4	6			6	7	2	8	5			7	7	6	3		
135	4	7			4			3	0	5	7	3		5	2		
136					6	5	3	4	2	0		7	7	6	5		
Last Record	4	4			5			8				4	4	7	5		

if your class strength is > 60 then insert rows above the green row , Similarly delete the empty rows above green row if the class strenght is < 60)																	
Total number of students appeared for the examination (NST)	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137		
Total number of students attempted the question (NSA)	90	85	56	62	122	118	89	94	24	30	89	106	103	120	109		
Attempt % (TAP) = (NSA/NST)*100	65.69	62.04	40.88	45.26	89.05	86.13	64.96	68.61	17.52	21.90	64.96	77.37	75.18	87.59	79.56		
Total number of Students who got more than 60% marks (NSM)	60	59	39	44	112	99	76	44	6	19	56	94	88	106	77		
Attainment % (TMP) = (NSM/NSA)*100	66.67	69.41	69.64	70.97	91.80	83.90	85.39	46.81	25.00	63.33	62.92	88.68	85.44	88.33	70.64		
Score(S)	3	3	3	3	3	3	3	1	0	3	3	3	3	3	3		
CO attainment is considered zero if the attempt % is less than 30%																	
CO Validation	1	1	2	4	4	6	4	5	3	6	2	3	3	7	2		
Course Outcome	CO1	CO1	CO2	CO4	CO4	CO6	CO4	CO5	CO3	CO6	CO2	CO3	CO3	CO7	CO2		
Marks (Y)	7	7	7	7	6	8	4	10	7	7	14	7	7	8	6		
No. of COs Shared (Z)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Y/Z	7	7	7	7	6	8	4	10	7	7	14	7	7	8	6		

S*Y/Z	21	21	21	21	18	24	12	10	0	21	42	21	21	24	18		
CO1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
CO2	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1		
CO3	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0		
CO4	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0		
CO5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		
CO6	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0		
CO7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		

Weighted Average for Attainment relevance	CO1	CO2	CO3	CO4	CO5	CO6	CO7
	3.00	3.00	2.00	3.00	1.00	3.00	3.00

!! Caution !! For CO Values < 2.1 should be justified with Remedial Action Report.



Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Bachupally, Kukatpally, Hyderabad – 500 090
Summary Sheet CO Attainments

Academic Year:	2019-20
Course/Sub ject:	Geotechnical Engineering - I
Department:	Civil Engineering
Section	A & B

Name of the Program:	B.Tech
Course Code:	GR17A3010
Year - Semester :	II Sem

Attainment/CO	CO1	CO2	CO3	CO4	CO5	CO6	CO7
Attainment for Direct Internal CO (Mid I & II,	3.00	2.85	3.00	3.00	3.00	3.00	3.00
Attainment for Direct External CO (End	3.00	3.00	2.00	3.00	1.00	3.00	3.00
Direct CO (0.3*Internal + 0.7*External)	3.00	2.95	2.30	3.00	1.60	3.00	3.00
Indirect CO	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Final CO (COFn) = (0.9 x Direct CO + 0.1	3.00	2.96	2.37	3.00	1.74	3.00	3.00

CO	Course Outcome	Remedial Action for COs Less than 70% (2.10)
CO1	Identify basic Engineering properties of soil and relate them	-
CO2	Evaluate various experiments to determine the geotechnical	-
CO3	Identify, formulate and solve various problems in geotechnical	
CO4	Analyse the mechanism and behavior of soil under various	-
CO5	Identify field equipment used in improving soil properties.	More number of numericals to be solved
CO6	Articulate importance of extensive research in	-
CO7	Analyze soil mechanics for development of construction	-

ID No.	Name of the Faculty	Department	Signature
804	Dr. C. Lavanya	Civil Engineering	

HOD
Copy to: IQAC

DAA



Gokaraju Rangaraju Institute of Engineering and Technology

(Autonomous)

Bachupally, Kukatpally, Hyderabad – 500 090

Direct Internal CO Attainments

Academic Year	2019-20
Year - Semester	II Sem

Department	Civil Engineering
Course Name :	Geotechnical Engineering - I

Name of the Programme	B.Tech
Course Code	GR17A3010

P-Outcomes	A	B	C	D	E	F	G	H	I	J	K	L	PSO 1	PSO 2
C-Outcomes														
1	H	M	M							M				M
2	M	H					M					M		
3	M	H		H										
4		H	M				M					M		M
5		M	H				M							
6	M			M		M					M	H		M
7			H	M		M	M			M				

Enter H,M, L values of CO-PO , PSO Mapping Matrix in blue shaded rows 12 - 18 for seven CO s automatically PO Attainments are Calculated



Convert above mappings to scale 1-3

P-Outcomes	A	B	C	D	E	F	G	H	I	J	K	L	PSO 1	PSO 2
C-Outcomes														
CO1	3	2	2							2				2
CO2	2	3					2					2		
CO3	2	3		3										
CO4		3	2				2					2		2
CO5		2	3				2					2		
CO6	2			2		2					2	3		2
CO7			3	2		2	2			2				
Expected Attainment	2.25	2.60	2.50	2.33	0.00	2.00	2.00	0.00	0.00	2.00	2.00	2.25	0.00	2.00

Fill the below table with obtained attainments in mids, external and Tutorial/Attendance

CO1	CO2	CO3	CO4	CO5	CO6	CO7
3.00	2.96	2.37	3.00	1.74	3.00	3.00

Final Cos CoF

	Attained PO A	Attained PO B	Attained PO C	Attained PO D	Attained PO E	Attained PO F	Attained PO G	Attained PO H	Attained PO I	Attained PO J	Attained PO K	Attained PO L	PSO 1	PSO 2
CO1	3.00	2.00	2.00							2.00				2.00
CO2	1.97	2.96					1.97					1.97		
CO3	1.58	2.37		2.37										
CO4		3.00	2.00				2.00					2.00		2.00
CO5		1.16	1.74				1.16					1.16		
CO6	2.00			2.00		2.00					2.00	3.00		2.00
CO7			3.00	2.00		2.00	2.00			2.00				
Attained	2.14	2.30	2.19	2.12	0.00	2.00	1.78	0.00	0.00	2.00	2.00	2.03	0.00	2.00

Note : If Average Attainment of a PO is #Div/0! Relace the corresponding PO with blank.

	A	B	C	D	E	F	G	H	I	J	K	L	PSO 1	PSO 2
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12		
Expected	2.25	2.60	2.50	2.33		2.00	2.00			2.00	2.00	2.25		2.00
Attained	2.14	2.30	2.19	2.12		2.00	1.78			2.00	2.00	2.03		2.00
	95.02	88.37	87.40	91.00		100.00	89.15			100.00	100.00	90.36		100.00

Note : PO is Satisfied if attained PO > 70, U indicates PO Unsatisfied

Faculty Co-Ordinator

HOD