	UGMIT, RAYAGADA DEPARTMENT OF CIVIL ENGINEERING	
Discipline: Civil Engg.	Semester: 5th	Name of the Teaching Faculty: CHINMAYA MAHARANA, GF, CIVIL
Subject:Civil Engineering Lab -II	No. of Days/Per week class allotted: 06	Semester From:- 14/07/2025 To:- 15/11/2025 No of Weeks:- 15
WEEK	CLASS	TOPICS
1st	1st	Determination of Specific gravity of Soil by Pycnometer /Density bottle.
	2nd	Determination of Specific gravity of Soil by Pycnometer /Density bottle.
	3rd	Determination of Specific gravity of Soil by Pycnometer /Density bottle.
	4th	Determination of Field Density of Soil by Core Cutter Method
	5th	Determination of Field Density of Soil by Core Cutter Method
	6th	Determination of Field Density of Soil by Core Cutter Method
2nd	1st	Determination of Particle Size gradation of sand/Gravel by sieve analysis
	2nd	Determination of Particle Size gradation of sand/Gravel by sieve analysis
	3rd	Determination of Particle Size gradation of sand/Gravel by sieve analysis
	4th	Wet mechanical analysis using pipette method for clay and silt.
	5th	Wet mechanical analysis using pipette method for clay and silt.
	6th	Wet mechanical analysis using pipette method for clay and silt.
3rd	1st	(a)Determination of Liquid Limit by soil by Casagrande"s apparatus.
	2nd	(a)Determination of Liquid Limit by soil by Casagrande"s apparatus.
	3rd	(a)Determination of Liquid Limit by soil by Casagrande"s apparatus.
	4th	Determination of Plastic limit of soil
	5th	Determination of Plastic limit of soil
	6th	Determination of Plastic limit of soil
	1st	Determination of Shrinkage limit of soil
	2nd	Determination of Shrinkage limit of soil

4th	3rd	Determination of Shrinkage limit of soil
	4th	Record Checking
	5th	Record Checking
	6th	Record Checking
5th	1st	Determination of MDD & OMC of soil by using modified Proctor Test
	2nd	Determination of MDD & OMC of soil by using modified Proctor Test
	3rd	Determination of MDD & OMC of soil by using modified Proctor Test
	4th	Record Checking
	5th	Record Checking
	6th	Record Checking
	1st	Determination of CBR value using Laboratory CBR Testing device
	2nd	Determination of CBR value using Laboratory CBR Testing device

6th	3rd	Determination of CBR value using Laboratory CBR Testing device
	4th	Determination of c and ϕ of soil by triaxial testing device
	5th	Determination of c and ϕ of soil by triaxial testing device
	6th	Determination of c and ϕ of soil by triaxial testing device
7th	1st	Determination of coefficient of permeability of soil by constant head method
	2nd	Determination of coefficient of permeability of soil by constant head method
	3rd	Determination of coefficient of permeability of soil by constant head method
	4th	Verification of Bernoulli's Theorem
	5th	Verification of Bernoulli's Theorem
	6th	Verification of Bernoulli's Theorem
8th	1st	Determination of coefficient of Discharge of a rectangular notch fitted in open
	2nd	Determination of coefficient of Discharge of a rectangular notch fitted in open
	3rd	Determination of coefficient of Discharge of a rectangular notch fitted in open
	4th	Determination of coefficient of Discharge of a Venturimeter, Orificemeter fitted in
	5th	a pipe 2.4 Determination of head Loss due to friction and coefficient of friction for
	6th	flow through pipe.
9th	1st	Determination of coefficient of Discharge of a Venturimeter, Orificemeter fitted in
	2nd	a pipe 2.4 Determination of head Loss due to friction and coefficient of friction for
	3rd	flow through pipe.
	4th	Penetration Test of Bitumen.
	5th	Penetration Test of Bitumen.
	6th	Penetration Test of Bitumen.
10th	1st	Ductility Test of Bitumen
	2nd	Ductility Test of Bitumen
	3rd	Ductility Test of Bitumen
	4th	Viscosity Test of Bitumen
	5th	Viscosity Test of Bitumen
	6th	Viscosity Test of Bitumen
11th	1st	Bitumen content by centrifuge extractor.
	2nd	Bitumen content by centrifuge extractor.
	3rd	Bitumen content by centrifuge extractor.
	4th	

	5th	Determination of Turbidity of water sample using Turbidimeter/Nephlometer/Jackson's Candle Turbidimete
	6th	
12th	1st	Determination of pH of Water sample using (a) pH – meter (b) colour Comparator.
	2nd	
	3rd	
	4th	Record Checking
	5th	
	6th	
13th	1st	Determination of Chloride content of a Water sample using method of titration
	2nd	
	3rd	
	4th	Determination of Coagulant (Alum) dose requirement for a turbid water sample by Jar Test.
	5th	
	6th	
14th	1st	Record Checking
	2nd	
	3rd	
	4th	Determination of dissolved oxygen in a water sample
	5th	
	6th	
15th	1st	Determination of bacteriological quality of water sample by Coliform test.
	2nd	Determination of bacteriological quality of water sample by Coliform test.
	3rd	Determination of bacteriological quality of water sample by
	4th	Record Checking
	5th	
	6th	

Chinmaya Maharana 24/7/25

Signature of Faculty: D-24/7/25

24/7/25

Signature of HOD