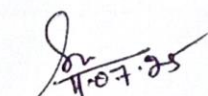
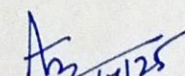
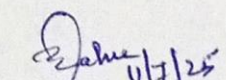


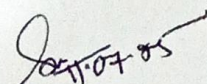
SYNERGY POLYTECHNIC, BBSR		
The Lesson Plan		
Discipline: CE	Semester: 3rd	Name of the Teaching Faculty: Mrs. Arpita Samal
Subject: GTE	No of Days/per week class allotted: 3	Semester from Date: 14.07.2025 to Date: 15.11.2025 No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Numerical practice
	2nd	Numerical practice
	3rd	Classification of Soil
	4th	
2nd	1st	INTERNAL ASSESSMENT-I
	2nd	Concept of Permeability, Darcy's Law, Co-efficient of Permeability,
	3rd	Factors affecting Permeability
	4th	Constant head permeability and falling head permeability Test.
3rd	1st	Numerical practice
	2nd	Seepage pressure, effective stress, phenomenon of quick sand
	3rd	
	4th	Numerical practice
4th	1st	Compaction, Light and heavy compaction Test
	2nd	Optimum Moisture Content of Soil, Maximum dry density, Zero air void line
	3rd	Factors affecting Compaction, Field compaction methods and their suitability
	4th	Consolidation, distinction between compaction and consolidation.
5th	1st	Terzaghi's Model analogy of compression/springs showing the process of consolidation, Field implications
	2nd	Numerical practice
	3rd	Shear failure of soil-General, local and punching shear, concept of shear strength of soil.
	4th	Mohr-Coulomb failure theory, Strength envelope
		MONTHLY TEST-II

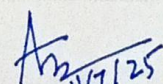

 Sign of Faculty

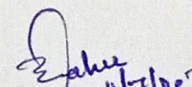

 HOD


 Principal

SYNERGY POLYTECHNIC, BBSR		
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Week	Class Day	Theory/Practical Topics
1st	1st	Direct shear, triaxial and vane shear test laboratory methods.
	2nd	Numerical practice
	3rd	Numerical practice
	4th	Bearing capacity and theory of earth pressure. Concept of bearing capacity, ultimate bearing capacity, safe bearing capacity and allowable bearing pressure
2nd	1st	Introduction to Terzaghi's analysis and assumptions,
	2nd	Effect of water table on bearing capacity.
	3rd	Numerical practice
	4th	Numerical practice
3rd	1st	Definition of earth pressure, Active and Passive earth pressure for no surcharge condition, coefficient of earth pressure
	2nd	Rankine's theory and assumptions made for non-cohesive Soils
	3rd	Numerical practice
	4th	Type of foundations-shallow, deep foundation
4th	1st	Type of foundations-shallow, deep foundation
	2nd	Numerical practice
	3rd	Numerical practice
	4th	INTERNAL ASSESSMENT-II


Sign of Faculty


HOD 11/7/25


Principal 11/7/25

SYNERGY POLYTECHNIC, BBSR		
The Lesson Plan		
Discipline: CE	Semester: 3rd	Name of the Teaching Faculty: Mrs. Arpita Samal
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4th	1st	Type of foundations-shallow, deep foundation
	2nd	Numerical practice
	3rd	Numerical practice
	4th	INTERNAL ASSESSMENT-II

Arpita Samal
14/07/25
Sign of Faculty

Arpita Samal
14/7/25
HOD

Dr. Jyoti
15/7/25
Principal

ESTD - 2017