LESSON PLAN OF **CEPC215 PR:3 Geotechnical Engineering Lab.** FOR THE SESSION 2025-26(WINTER-2025) BATCH-2024-27, GOVT. POLYTECHNIC,KANDHAMAL

Discipline: **civil engineering**	Semester: **3rd**	**Name of the Teaching Faculty: Ashish Nayak, Lect. in Cvil Engg.**
Subject: **CEPC215 PR:3 Geotechnical Engineering Lab..**	No. of days/ per week class allotted: **4**	Semester From Date : **14/07/2025** to Date: **15/11/2025** No. of Weeks: **15**

Week	Class Day	Theory/ Practical Topics (as per Blooms Taxonomy)
1st	1st	Determine water content of given soil sample by oven drying method as per IS: 2720 (Part-II).
	2nd	Determine water content of given soil sample by oven drying method as per IS: 2720 (Part-II).
	3rd	Determine water content of given soil sample by oven drying method as per IS: 2720 (Part-II).
	4th	Determine water content of given soil sample by oven drying method as per IS: 2720 (Part-II).
2nd	1st	Determine specific gravity of soil by pycnometer method as per IS 2720 (Part-III).
	2nd	Determine specific gravity of soil by pycnometer method as per IS 2720 (Part-III).
	3rd	Determine specific gravity of soil by pycnometer method as per IS 2720 (Part-III).
	4th	Determine specific gravity of soil by pycnometer method as per IS 2720 (Part-III).
3rd	1st	Determine dry unit weight of soil in field by core cutter method as per IS 2720 (Part- XXIX).
	2nd	Determine dry unit weight of soil in field by core cutter method as per IS 2720 (Part- XXIX).
	3rd	Determine dry unit weight of soil in field by core cutter method as p. IS 2720 (Part- XXIX).
	4th	Determine dry unit weight of soil in field by core cutter method as per IS 2720 (Part- XXIX).
4th	1st	Determine dry unit weight of soil in field by sand replacement method as per IS 2720 (Part-XXVIII).
	2nd	Determine dry unit weight of soil in field by sand replacement method as per IS 2720 (Part-XXVIII).
	3rd	Determine dry unit weight of soil in field by sand replacement method a per IS 2720 (Part-XXVIII).
	4th	Determine dry unit weight of soil in field by sand replacement method as per IS 2720 (Part-XXVIII).
5th	1st	Determine Plastic and Liquid Limit along with Plasticity Index of given soil sample as per IS 2720 (Part- V).

	2nd	Determine Plastic and Liquid Limit along with Plasticity Index of given soil sample as per IS 2720 (Part- V).
	3rd	Determine Plastic and Liquid Limit along with Plasticity Index of given soil sample as per IS 2720 (Part- V).
	4th	Determine Plastic and Liquid Limit along with Plasticity Index of given soil sample as per IS 2720 (Part- V).
6th	1st	Determine Shrinkage limit of given soil sample as per IS 2720 (Part- V).
	2nd	Determine Shrinkage limit of given soil sample as per IS 2720 (Part- V).
	3rd	Determine Shrinkage limit of given soil sample as per IS 2720 (Part- V).
	4th	Determine Shrinkage limit of given soil sample as per IS 2720 (Part- V).
7th	1st	Determine grain size distribution of given soil sample by mechanical sieve analysis as per IS2720 (Part- IV).
	2nd	Determine grain size distribution of given soil sample by mechanical sieve analysis as per IS2720 (Part- IV).
	3rd	Determine grain size distribution of given soil sample by mechanical sieve analysis as per IS2720 (Part- IV).
	4th	Determine grain size distribution of given soil sample by mechanical sieve analysis as per IS2720 (Part- IV).
8th	1st	Use different types of soil to identify and classify soil by conducting field tests- through Visual inspection, Dry strength test, Dilatancy test and Toughness test.
	2nd	Use different types of soil to identify and classify soil by conducting field tests- through Visual inspection, Dry strength test, Dilatancy test and Toughness test.
	3rd	Use different types of soil to identify and classify soil by conducting field tests- through Visual inspection, Dry strength test, Dilatancy test and Toughness test.
	4th	Use different types of soil to identify and classify soil by conducting field tests- through Visual inspection, Dry strength test, Dilatancy test and Toughness test.
9th	1st	Determine coefficient of permeability by constant head test as per IS 2720 (Part- XVII).
	2nd	Determine coefficient of permeability by constant head test as per IS 2720 (Part- XVII).
	3rd	Determine coefficient of permeability by constant head test as per IS 2720 (Part- XVII).
	4th	Determine coefficient of permeability by constant head test as per IS 2720 (Part- XVII).
10th	1st	Determine coefficient of permeability by falling head test as per IS 2720 (Part-
	2nd	Determine shear strength of soil by direct shear test as per IS 2720 (Part- XIII).
	3rd	Determine shear strength of soil by direct shear test as per IS 2720 (Part-XIII).

	4th	Determine shear strength of soil by direct shear test as per IS 2720 (Part-XIII).
11th	1st	Determine shear strength of soil by vane shear (Part-XXX).
	2nd	Determine shear strength of soil by vane shear (Part-XXX).
	3rd	Determine shear strength of soil by vane shear (Part-XXX).
	4th	Determine shear strength of soil by vane shear (Part-XXX).
12th	1st	triaxial shear test as per IS 2720 (Part-XXX).
	2nd	triaxial shear test as per IS 2720 (Part-XXX).
	3rd	triaxial shear test as per IS 2720 (Part-XXX).
	4th	triaxial shear test as per IS 2720 (Part-XXX).
13th	1st	Determine MDD and OMC by standard proctor test and modified proctor test of given soil sample as per IS 2720 (Part-VII).
	2nd	Determine MDD and OMC by standard proctor test and modified proctor test of given soil sample as per IS 2720 (Part-VII).
	3rd	Determine MDD and OMC by standard proctor test and modified proctor test of given soil sample as per IS 2720 (Part-VII).
	4th	Determine MDD and OMC by standard proctor test and modified proctor test of given soil sample as per IS 2720 (Part-VII).
14th	1st	Determination of CBR value on the field as per IS2720 (Part - XVI).
	2nd	Determination of CBR value on the field as per IS2720 (Part - XVI).
	3rd	Determination of CBR value on the field as per IS2720 (Part - XVI).
	4th	Determination of CBR value on the field as per IS2720 (Part - XVI).
15th	1st	Record Submition
	2nd	Record Submition
	3rd	Record Submition
	4th	Record Submition

8/7/2025.

Lect in Civil

14/07/2025

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