

LESSON PLAN

Discipline: Civil Engineering

Academic Session :- 2024-25

Subject: Concrete Technology { Th.4(a)}

Name of teaching faculty: BHAGYASHREE ROUT

Semester: 6th

Semester from Date: 4 FEB 2025 to 17 MAY 2025

No. of weeks: 14

4P/week

No. of Days/ week class allotted: 04 period per week(Monday, Tuesday, Thursday, Friday)

MONT H	Week	DATE	DAYS/PERI OD	Syllabus to be covered	Total period: 60 NO. OF PERIODS AVAILABLE	
FEBRU ARY	2ND	04/02/2025	Tue	CHAPTER-1: Concrete as a construction material(02)	2	
		06/02/2025	Thu	1.1 Grades of Concrete	1	
				1.2 Advantages and disadvantages of concrete	1	
				CHAPTER-2: CEMENT(04)	4	
			07/02/2025	Fri	2.1 Composition, hydration of cement	1
			10/02/2025	Mon	water cement ratio & compressive strength test	1
	3RD		11/02/2025	Tue	fineness of cement, setting time	1
			13/02/2025	Thu	soundness, types of cement	1
					CHAPTER-3: Aggregate, Water & admixture(06)	6
			14/02/2025	Fri	3.1 Classification and characteristics of aggregate,	1
	4TH		17/02/2025	Mon	fineness modulus, grading of aggregate	1
			18/02/2025	Tue	3.2 Quality of water for mixing and curing.	1
			20/02/2025	Thu	3.3 Important functions, classification of admixtures, I.S 9103	1
			21/02/2025	Fri	accelerating admixtures, retarding admixtures	
	5TH		24/02/2025	Mon	water reducing admixtures, air containing admixtures	1
					CHAPTER -4: Properties of fresh concrete(06)	
			25/02/2025	Tue	4.1 Concept of fresh concret	1
			27/02/2025	Thu	workability	1
			28/02/2025	Fri	slump test, compacting factor test	1
	2ND		03/03/2025	Mon	V-bee consistency test	1
		04/03/2025	Tue	flow test	1	
		06/03/2025	Thu	requirement of workability, I.S. 1199	1	
				CHAPTER-5: Properties of hardened concrete(07)	7	
		07/03/2025	Fri	5.1 Cube and cylinder compressive strengths	1	
		10/03/2025	Mon	flexural strength of concrete	1	
3RD		11/03/2025	Tue	stress-strain and elasticity	1	

MARCH		13/03/2025	Thu	phenomena of creep and shrinkage	1	
		17/03/2025	Mon	permeability, durability of concrete	1	
	4TH		18/03/2025	Tue	sulphate, chloride and acid attack on concrete	1
			20/03/2025	Thu	efflorescence	1
					CHAPTER-6:Concrete mix Design(05)	5
			21/03/2025	Fri	6.1 a) Introduction	1
			24/03/2025	Mon	b) Data or input required for mix design	1
	5TH		25/03/2025	Tue	6.2 Nominal mix concrete	1
			27/03/2025	Thu	4.2.Buckling class of cross sections	1
			28/03/2025	Fri	design mix concrete	
APRIL	1ST	03/04/2025	Thu	Basic consideration for concrete mix design, Methods of proportioning concrete	1	
				CHAPTER-7:Production of concrete(06)	6	
		04/04/2025	Fri	Batching of materials	1	
	2ND		07/04/2025	Mon	mixing of concrete materials	1
			08/04/2025	Tue	transportation, placing of concrete	1
			10/04/2025	Thu	compactionof concrete (vibrators)	1
			11/04/2025	Fri	Curing of concrete	1
	3RD		15/04/2025	Tue	Formwork-requirements and types ,stripping of forms	1
					CHAPTER-8:Inspection and Quality Control of Concrete(06)	6
			17/04/2025	Thu	Quality control of Concrete as per I.S.456	1
	4TH		21/04/2025	Mon	Factors causing the variations in the quality of Concrete	1
			22/04/2025	Tue	Mixing, Transporting of concrete	1
			24/04/2025	Thu	Placing &curing requirements of Concrete as per I.S.456	1
			25/04/2025	Fri	Inspection and Testing as per Clause 17 of IS:456.	1
	5TH		28/04/2025	Mon	Durability requirements of Concrete as per I.S:456	1
					CHAPTER-9:-Special Concrete(06)	6
			28/04/2025	Mon	Introduction to ready mix concrete	1
			29/04/2025	Tue	high performance concrete	1
MAY	1ST	01/05/2025	Thu	silica fume concrete	1	
		02/05/2025	Fri	shot-crete concrete		
	2ND		05/05/2025	Mon	Guniting	1
					CHAPTER-10:Deterioration of concrete and its prevention(06)	6
			06/05/2025	Tue	Types of deterioration	1
			08/05/2025	Thu	prevention of concrete deterioration	1
			09/05/2025	Fri	corrosion of reinforcement	1
			13/05/2025	Tue	Effects	1

3RD	15/05/2025	Thu	prevention	
			CHAPTER11 :-Repair technology for concrete structures(06)	6
	16/05/2025	Fri	Symptom, cause	1
	E X T R A C L A S S		prevention and remedy of defects during construction	1
			cracking of concrete due to different reasons	1
			Repair of cracks for different purposes	1
			selection of techniques	1
			polymerbased repairs, common types of repairs.	1
			class test	1
			Revision	1