

LESSON PLAN for session Summer-2024-25			
Discipline: CIVIL ENGG. Semester: 6TH		Name of the Teaching Faculty: ASHIRBAD ANAND	
Subject: CONCRETE TECHNOLOGY	No. of days/ per week class alloted: 4	Semester from date: 04.02.2025 To date: 17.05.2025	
		No. of weeks: 15	
SL NO.	WEEK	Class Day	Theory
1	WEEK-1	1	1.1 Grades of concrete.
		2	1.2 Advantages and disadvantages of concrete.
		3	2.1 Composition, hydration of cement, water cement ratio and compressive strength, fineness of cement, setting time, soundness, types of cement.
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2	WEEK-2	5	
		6	
		7	3.1 Classification and characteristics of aggregate, fineness modulus, grading of aggregate, I.S.383
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3	WEEK-3	9	3.2 Quality of water for mixing and curing.
		10	
		11	3.3 Important functions, classification of admixtures, I.S 9103, accelerating admixtures, retarding admixtures, water reducing admixtures, air containing admixtures
		12	
4	WEEK-4	13	4.1 Concept of fresh concrete, workability, slump test, compacting factor test, V-bee consistency test and flow test, requirement of workability, I.S.1199.
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		16	
5	WEEK-5	17	Internal assessment Examination
		18	
		19	5.1 Cube and cylinder compressive strengths, flexural strength of concrete, stress-strain and elasticity, phenomena of creep and shrinkage, permeability, durability of concrete, sulphate, chloride and acid attack on concrete, efflorescence.
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6	WEEK-6	21	5.1 Cube and cylinder compressive strengths, flexural strength of concrete, stress-strain and elasticity, phenomena of creep and shrinkage, permeability, durability of concrete, sulphate, chloride and acid attack on concrete, efflorescence.
		22	
		23	5.1 Cube and cylinder compressive strengths, flexural strength of concrete, stress-strain and elasticity, phenomena of creep and shrinkage, permeability, durability of concrete, sulphate, chloride and acid attack on concrete, efflorescence.
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7	WEEK-7	25	
		26	6.1 a) Introduction
		27	b) Data or input required for mix design.
		28	6.2 Nominal mix concrete & design mix concrete.

8	WEEK-8	29	6.3 Basic consideration for concrete mix design, Methods of proportioning
		30	concrete mix – I.S Code method of mix design(I.S.10262)
		31	7.1 Batching of materials, mixing of concrete materials, transportation, placing of
		32	concrete, compaction of concrete (vibrators), Curing of concrete, Formwork-requirements and types ,stripping of forms. (Concepts only) 7.1 Batching of
9	WEEK-9	33	materials, mixing of concrete materials, transportation, placing of concrete,
		34	compaction of concrete (vibrators), Curing of concrete, Formwork-requirements
		35	and types ,stripping of forms. (Concepts only)
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10	WEEK-10	37	10.1 Quality control of Concrete as per I.S.456,
		38	Factors causing the variations in the quality of concrete
		39	10.2 Mixing, Transporting, Placing &curing requirements of Concrete as per I.S.456.
		40	10.3 Inspection and Testing as per Clause 17 of IS:456.
11	WEEK-11.	41	10.4 Durability requirements of Concrete as per I.S:456.
		42	10.4 Durability requirements of Concrete as per I.S:456.
		43	11.1 Introduction to ready mix concrete, high performance concrete, silica fume
		44	concrete, shot-crete concrete or gunitting (Concepts only).
12	WEEK-12	45	
		46	11.1 Introduction to ready mix concrete, high performance concrete, silica fume
		47	concrete, shot-crete concrete or gunitting (Concepts only).
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13	WEEK-13	49	12.1 Types of deterioration, prevention of concrete deterioration, corrosion of
		50	reinforcement, effects and prevention
		51	
		52	12.1 Types of deterioration, prevention of concrete deterioration, corrosion of
14	WEEK-14	53	reinforcement, effects and prevention
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		55	13.1 Symptom, cause and prevention and remedy of defects during construction,
		56	cracking of concrete due to different reasons. Repair of cracks for different
15	WEEK-15	57	purposes, selection of techniques, polymer based repairs, common types of
		58	repairs.
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		60	Previous year question paper discussion

Ashinabed
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