

PNS SCHOOL OF ENGINEERING & TECHNOLOGY

LESSION PLAN

BRANCH-CIVIL	SEMESTER-6TH	NAME OF THE FACULTY-Er.GAYATREE SAHOO
SUBJECT- CONCRETE TECHNOLOGY TH-4	NO OF DAYS PER WEEK -6 CLASS ALLOTTED-60	SEMESTER FROM 13.02.2023 TO 24.05.2023
WEEK	CLASS DAY	THEORY TOPIC
FEBRUARY-3RD	1ST	Concrete as a construction material: Grades of concrete.
	2ND	Advantages and disadvantages of concrete
	3RD	Cement: Composition, hydration of cement
	4TH	water cement ratio and compressive strength,
	5TH	fineness of cement, setting time, soundness, types of cement.
4TH	1ST	Aggregate, Water and Admixtures: Classification and characteristics of aggregate.
	2ND	fineness modulus, grading of aggregate, I.S.383
	3RD	Quality of water for mixing and curing.
	4TH	Important functions, classification of admixtures
	5TH	accelerating admixtures, retarding admixtures, water reducing admixtures, air containing admixtures
	6TH	Properties of fresh concrete: Concept of fresh concrete,
5TH	1ST	CONTINUE
	2ND	CONTINUE
MARCH -1ST	1ST	workability, slump test, compacting factor test,
	2ND	, V-tee consistency test and flow test, requirement of workability, I.S.1199.
	3RD	Properties of hardened concrete: Cube and cylinder compressive strengths, flexural strength of concrete
	4TH	stress-strain and elasticity, phenomena of creep and shrinkage,
2ND	1ST	permeability, durability of concrete, sulphate, chloride and acid attack on concrete, efflorescence.
	4TH	Concrete mix Design Introduction
	5TH	Data or input required for mix design
	1ST	Nominal mix concrete & design mix concrete.

3RD	2ND	Basic consideration for concrete mix design,
	3RD	Methods of proportioning concrete mix – I.S Code method of mix design(I.S.10262)
	4TH	Production of concrete: Batching of materials
	5TH	mixing of concrete materials, transportation, placing of concrete, compaction of concrete (vibrators),
	6TH	Curing of concrete, Formwork-requirements and types ,stripping of forms.
4TH	1ST	Inspection and Quality Control of Concrete Quality control of Concrete as per I.S.456, Factors causing the variations in the quality of concrete
	2ND	DO
	3RD	DO
	4TH	Mixing, Transporting, Placing &curing requirements of Concrete as per I.S.456.
	5TH	DO
	6TH	DO
5TH	1ST	Inspection and Testing as per Clause 17 of IS:456.
	2ND	DO
	3RD	DO
	5TH	Durability requirements of Concrete as per I.S:456.
APRIL-2ND	2ND	Special Concrete Introduction to ready mix concrete,
	3RD	DO
	4TH	high performance concrete
	6TH	silica fume concrete
3RD	1ST	, shot-crete concrete or gunnitting (Concepts only).
	2ND	DO
	3RD	DO
	4TH	Deterioration of concrete and its prevention:INTRODUCTION
4TH	1ST	Types of deterioration
	2ND	DO
	3RD	prevention of concrete deterioration,
	4TH	DO
	5TH	corrosion of reinforcement,
5TH	1ST	DO
	2ND	effects and prevention
	3RD	DO
	4TH	Repair technology for concrete structures:INTRODUCTION
	5TH	Symptom
	6TH	cause and prevention and remedy of defects during construction,
MAY-1ST	1ST	DO
	2ND	cracking of concrete due to different reasons.

1ST	3RD	DO
	4TH	Repair of cracks for different purposes
	6TH	DO
2ND	1ST	DO
	2ND	, selection of techniques,
	3RD	DO
	4TH	polymer based repairs
	5TH	DO
	6TH	, common types of repairs.
3RD	1ST	DO
	2ND	DOUBT CLEARING CLASS
	3RD	DOUBT CLEARING CLASS
	4TH	DOUBT CLEARING CLASS
	5TH	DOUBT CLEARING CLASS
	6TH	DISCUSS ABOUT PREVIOUS YEAR QUESTIONS
4TH	1ST	IMPORTANT QUESTIONS AND ANSWER DISCUSSION
	2ND	IMPORTANT QUESTIONS AND ANSWER DISCUSSION
	3RD	IMPORTANT QUESTIONS AND ANSWER DISCUSSION

Gayatri Sahoo

SIGN OF LECTURE

Sudeepa Mishra

SIGN OF HOD