PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH

LESSON PLAN

Session-2022-2023

Discipline: Civil Engg. Semester: 6TH

Name of the Teaching Faculty: Satyanarayan Bhesagar

Subject: Concrete Technology No. of Days/per week class allotted 04

Semester From Date : 14/2/23 To Date : 23/5/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
1	1st	Grade of concrete
	2nd	Advantages & disadvantages of concrete
	3rd	composition, hydration of cement
	4th	water cement ratio & compressive strength of cement
2	1st	Fineness of cement, setting time of cement
	2nd	Soundness of cement, Types of cement
	3rd	classification & characteristics of aggregate
	4th	Fineness modules, grading of aggregate, IS 383
3	1st	Quality of water for mixing & curing
	2nd	Importance functions, classifications of admixture, IS 9103
	3rd	accelerating admixture, retarding admixture
	4th	Water reducing admixture air entraining admixture

Satyanarayan Bhuyan

Signature of the Faculty

Subject: Concrete Technology No. of Days/per week class allotted 04

Semester From Date : 14/2/23 To Date : 23/5/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
4	1st	concept of fresh concrete workability of concrete
	2nd	slump test, compacting factor test of concrete
	3rd	V-bee consistency test of concrete, flow test of concrete
	4th	Requirement of workability of concrete. IS 1199
5	1st	Revision of workability, slump test, compacting factor test.
	2nd	Revision of V-bee consistency test, flow test, requirement of workability
	3rd	cube & cylinder compressive strength of concrete
	4th	Flexural strength of concrete.
6	1st	Stress-Strain & elasticity of concrete
	2nd	phenomena of creep & shrinkage of concrete
	3rd	permeability & durability of concrete
	4th	chloride & acid attack on concrete, efflorescence.

Satyanarayan Bhuyan

Signature of the Faculty

Subject: Concrete Technology No. of Days/per week class allotted 04

Semester From Date : 14/2/23 To Date : 23/5/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
7	1st	Revision about compressive strength, flexural strength, stress-strain, creep, shrinkage, durability.
	2nd	Introduction, Data or input required for mix design
	3rd	Nominal mix concrete & Design mix concrete
	4th	Basic consideration for concrete mix design
8	1st	Methods of proportioning concrete mix, Is code method of mix design (IS- 10262)
	2nd	Revision about nominal mix & design mix concrete.
	3rd	Batching of materials of concrete
	4th	Mixing of concrete materials.
9	1st	Transportation, placing of concrete
	2nd	compaction of concrete, curing of concrete
	3rd	Form work - requirement & types stripping of form.
	4th	Revision about production of concrete

Satyanarayan Bhusbagar

Signature of the Faculty

Subject: Concrete Technology No. of Days/per week class allotted 04

Semester From Date : 14/2/23 To Date : 23/5/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
10	1st	Quality control of concrete as per IS 456
	end	Factors causing the variations in the quality of concrete
	3rd	Mixing, Transporting of concrete
	4th	Placing & curing requirements of concrete as per IS 456
11	1st	Inspection & testing of concrete as per clause 17 of IS: 456
	2nd	Durability requirement of concrete as per IS: 456
	3rd	Revision about inspection & quality control of concrete
	4th	Introduction to Ready-mix concrete
12	1st	High-performance concrete
	2nd	Silica-fume concrete
	3rd	Short-crete concrete, guniting
	4th	Revision about special concrete

Satyanarayan Bhusdar

Signature of the Faculty

Subject: Concrete Technology No. of Days/per week class allotted 04

Semester From Date : 14/2/23 To Date : 23/5/23 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
13	1st	Types of deterioration of concrete
	2nd	prevention of concrete deterioration
	3rd	corrosion of reinforcement
	4th	Effect of deterioration of concrete.
14	1st	Prevention of deterioration of concrete
	2nd	Revision about deterioration of concrete & its prevention.
	3rd	Symptoms, cause & prevention of Repair technology
	4th	Remedy & defects during construction
15	1st	cracking of concrete due to different reasons.
	and	Repair & cracks for different purposes, selection & Technology.
	3rd	polymer based repairs, common types of repair technology.
	4th	Revision about repair technology for concrete structures.

Satyanarayan Bhusagar

Signature of the Faculty