

Discipline:	Civil	Semester: 6 th	Name of the Teaching Faculty: <i>Souravprakash Mohanty</i>	
Subject:	Concrete Technology	No of Days/Week Class Allotted: <u>04</u>	Semester From date: _____ To date _____	No. of Weeks: <u>06</u>
WEEK	Class Day	Theory Topics		
1st	1st	Introduction to Concrete Technology		
	2nd	Grades of Concrete		
	3rd	Advantages & Disadvantages of Concrete - Cement - Composition, Hydration of cement		
	4th	Water cement ratio & Compressive strength		
	5th			
2nd	1st	Fineness of cement, Setting time of cement, soundness of cement		
	2nd	Types of cement		
	3rd	Types of cement		
	4th	Aggregate, water and admixtures - Classification and characteristic of aggregate		
	5th			
3rd	1st	Finemodulus, Grading of aggregate.		
	2nd	Quality of water mixing and curing		
	3rd	Important functions and classification of admixtures.		
	4th	Accelerating admixtures, retarding admixtures		
	5th			

WEEK	Class Day	Theory Topics
4th	1st	Water reducing admixtures, Air containing admixtures.
	2nd	Properties of fresh concrete - Concept of fresh concrete.
	3rd	Workability, Slump test.
	4th	Compacting factor test
	5th	
5th	1st	Vee-Bee consistency test
	2nd	Flow test.
	3rd	Requirement of workability.
	4th	Properties of Hardened concrete - Cube and cylinders compressive strength
	5th	
6th	1st	Flexural strength of concrete, Stress-strain
	2nd	Elasticity, Permeability, Efflorescence.
	3rd	Phenomena of Creep, shrinkage, Causes of creep
	4th	Durability of concrete, Sulphate attack on concrete.
	5th	

Discipline:	Civil Engg	Semester: 6th	Name of the Teaching Faculty: Mousumi Pahan	
Subject:	Concrete Technology	No of Days/Week Class Allotted: 04	Semester From date: _____ To date _____	No. of Weeks: 06
WEEK	Class Day	Theory Topics		
7th	1st	Chloride and Acid attack on concrete.		
	2nd	Class test -1		
	3rd	Concrete Mix Design - Introduction		
	4th	Data on input required for mix Design.		
	5th			
8th	1st	Nominal mix concrete & Design mix concrete.		
	2nd	Basic considerations for Concrete mix Design.		
	3rd	Methods of proportioning concrete mix		
	4th	Revision, Doubt Clear class		
	5th			
9th	1st	Production of Concrete - Introduction, Batching of materials		
	2nd	Mixing of concrete materials, transportation		
	3rd	Placing of Concrete, Compaction of concrete.		
	4th	Vibrators, Curing of Concrete.		
	5th			

WEEK	Class Day	Theory Topics
10th	1st	Production of Concrete - Curing of Conc., Formwork requirements
	2nd	Types of Formwork, Stripping of forms.
	3rd	Inspection and quality control of Concrete - Quality Control of Concrete.
	4th	Factors causing the variations in the Quality of concrete.
	5th	
11th	1st	Mixing, Transporting of Concrete as per IS 456-2000
	2nd	Placing and Curing requirements of Concrete IS 456-2000
	3rd	Inspection & Testing as per IS 456
	4th	Durability Requirement as per IS 456-2000
	5th	
12th	1st	Class Test
	2nd	Special Concrete - Introduction to ready mix concrete.
	3rd	High performance concrete.
	4th	Silica Fume Concrete.
	5th	

Discipline:	Civil	Semester:	6th	Name of the Teaching Faculty	Mousumi Puhon
Subject:	Concrete Technology	No of Days/Week Class Allotted:	04	Semester From date: _____ To date _____	No. of Weeks: 03
WEEK	Class Day	Theory Topics			
13th	1st	Shot-crete Concrete or Grouting			
	2nd	Causes of Deterioration of Concrete. Prevention of deterioration			
	3rd	Types of deterioration.			
	4th	Corrosion of reinforcement & its prevention.			
	5th				
14th	1st	Remedy of defects during construction.			
	2nd	Revision, Doubt clear class.			
	3rd	Cracking of concrete due to different reasons.			
	4th	Repair of cracks for diff ⁿ purposes			
	5th				
15th	1st	Selection of techniques, polymer based repairs			
	2nd	Common types of repair.			
	3rd	Revision			
	4th	Revision.			
	5th				