

Lesson Plan

Name of faculty :- Rina(Theory and Practical) Discipline :- Civil Engineering
 Semester :- 4th
 Subject :- Concrete Technology
 Lesson Plan Duration :- 15 weeks Work Load :- Lectures-3, Practicals-2

WEEK	THEORY		PRACTICAL	
	LECTURE DAY	TOPIC	PRACTICAL DAY	TOPIC
1st	1 st	Definition of concrete and its use	1 st	To determine physical properties of cement
	2 nd	Comparison of concrete to other building material		
	3 rd	Advantage and disadvantage of concrete	2 nd	To determine physical properties of cement
	4 th	Cement and its properties		
2nd	1 st	Different type of cement and Aggregate and its classification	1 st	To determine flakiness and elongation index of coarse aggregate
	2 nd	Different type of cement and Aggregate and its classification	2 nd	To determine and elongation index of coarse aggregate
	3 rd	Characteristics of aggregate		
	4 th	Grading of aggregate and water		
3rd	1 st	Water cement ratio, hydration of cement, Duff Abram water cement ratio law	1 st	To determine silt in fine aggregate
	2 nd	Limitation of water cement ratio law and its effect		
	3 rd	Workability and factor affecting workability	2 nd	To determine silt in fine aggregate

	4 th	Revision	2 nd	
4 th	1 st	Measurement of workability	1 st	Determination of specific gravity and water absorption of aggregate
	2 nd	Slump for placement in various condition		
	3 rd	Property of concrete, segregation, bleeding And harshness	2 nd	Determination of specific gravity and water absorption of aggregate
	4 th	Property of concrete, segregation, bleeding And harshness		
5 th	1 st	Sessional 1st		
	2 nd			
	3 rd			
	4 th			
6 th	1 st	Property of concrete, segregation, bleeding And harshness	1 st	Determination of bulk density and void in aggregate and surface moisture by displacement method
	2 nd	Properties in hardened state		
	3 rd	Strength, durability of concrete And dimensional changes	2 nd	Determination of bulk density and void in aggregates and surface moisture by displacement method
	4 th	Strength, durability of concrete And dimensional changes		
7 th	1 st	Proportioning of normal concrete, mix design and normal mix	1 st	Determination of particle size distribution of aggregate by sieve analysis
	2 nd	Adjustment on site of concrete		
	3 rd	Difference between nominal concrete and controlled concrete	2 nd	Determination of particle size distribution of aggregate by sieve analysis
	4 th	Difference between nominal concrete and controlled concrete		
8 th	1 st	Revision of previous chapter	1 st	To determine necessary adjustment for bulking of fine aggregate
	2 nd	Admixture		

	3 rd	Types of admixture and its uses	2 nd	To determine necessary adjustment for bulking of fine aggregate
	4 th	Revision		
9 th	1 st	Special concrete, concrete under special condition	1 st	To determine workability by slump test
	2 nd	Ready mixed concrete, fibre reinforced concrete		
	3 rd	Polymer and fly ash concrete	2 nd	To determine workability by slump test
	4 th	Special concrete, concrete under special condition		
10 th	1 st	Sessional 2 nd		
	2 nd			
	3 rd			
	4 th			
11 th	1 st	Silica flume concrete and revision	1 st	To verify the effect of water, fine aggregate ratio and cement ratio on slump
	2 nd	Concreting operation , storing of cement		
	3 rd	Storing of aggregate	2 nd	To verify the effect of water, fine aggregate ratio and cement ratio on slump
	4 th	Concreting operation , storing of cement		
12 th	1 st	Batching of cement	1 st	Compaction factor test
	2 nd	Mixing of cement and concrete		
	3 rd	Transportation of concrete	2 nd	Compaction factor test
	4 th	Revision		
13 th	1 st	Placement of concrete	1 st	Non destructive test
	2 nd	Compaction		
	3 rd	Finishing of concrete slabs and curing of concrete made structure		Non destructive test

	4 th	Objective of curing, methods of curing like ponding, membrane curing, steam curing, chemical curing	2 nd	
14 th	1 st	Duration for curing and removal of form work	1 st	Test for compressive strength
	2 nd	Importance and methods of non- destructive tests, Rebound Hammer Test		
	3 rd	Importance and methods of non- destructive tests, Pulse Velocity method	2 nd	Test for compressive strength
	4 th	Revision		
15 th	1 st	Revision	1 st	Test for compressive strength of concrete cubes of different grade
	2 nd	Sessi		
	3 rd	Sessional		
	4 th	Sessional	2 nd	Test for compressive strength of concrete cubes of different grade