



**ASIAN SCHOOL OF TECHNOLOGY,
BHUBANESWAR**

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Discipline: Civil engineering	Semester : 3 rd	No. of periods available: 51	Name of Teaching Faculty: Swatishree Lenka
Subject: Building Materials and Construction techniques	No. of Days/ per week class allotted : 4 periods per week		No. of weeks : 13
Week	Class Day		Topics to be covered
1 st	1st	1	Classification of rock Uses of stone Natural bed of stone and dressing of stone Characteristic of different types of stone and their uses
	2nd	1	Brick earth and its composition Brick making and preparation of brick earth Classification of bricks Manufacturing process of brick
	3rd	1	Qualities of good building bricks Cement and types of cement Properties of cement
	4th	1	Manufacturing of cement
2 nd	5th	1	Importance and application of blended cement
	6th	1	Mortar and types of mortar
	7th	1	Sources and classification of sand
	8th	1	Buckling of sand
3 rd	9th	1	Use of gravel ,morrum and fly ash
	10th	1	Definition and composition of concrete
	11th	1	Water cement ratio, workability
	12th	1	Properties and grading of aggregate
4 th	13th	1	Class test
	14th	1	Mixing placing ,compacting and curing of concrete
	15th	1	Revision
	16th	1	Timber and its classification
5 th	17th	1	Importance and seasoning of timber
	18th	1	Quiz test
	19th	1	Characteristics of good timber

	20th	1	Clay products and refractory materials
6 th	21st	1	Uses of cast iron, wrought iron, mild steel
	22nd	1	Surface protective materials
	23rd	1	Composition of paints ,enamels, varnishes
	24th	1	Types and uses of surface protective material
7 th	25th	1	Varnishes and distempering
	26th	1	Building and classification of building
	27th	1	Different components of building
	28th	1	Site investigation
8 th	29th	1	Previous year question discussion
	30th	1	Concept of foundation and its purpose
	31st	1	Types of foundation
	32nd	1	Different types of shallow foundation
9 th	33rd	1	Wall and purpose of wall
	34th	1	Classification of walls
	35th	1	Brick masonry
	36th	1	Technical terms used in brick masonry
10 th	37th	1	Stone masonry
	38th	1	Glossary of terms used in stone masonry
	39th	1	Doors windows and lintels
	40	1	Glossary of terms used related to door, window
11 th	41st	1	Different types of doors and Different types of windows
	42nd	1	Purpose and uses of lintel and arches Floors, roofs and staircase Terms used in floors Terms used in roof.
	43rd	1	Terms used in staircase Types of staircase
	44th	1	Plastering and types of plastering Types of plaster finishes Purpose of plastering
12 th	45th	1	Pointing ,types of pointing
	46th	1	white washing ,colour washing,distempering
	47th	1	Methods of painting
	48th	1	Damp proofing methods and materials
13 th	49th	1	Termite proofing methods
	50th	1	Class test
	51st	1	Introduction to green building and energy management
	52nd	1	Types of energy audit Energy surveying and audit report