LESSON PLAN OF 6th SEMESTER CIVIL ENGINEERING

Discipline : CIVIL	Semester:6th	Name of the Teaching Faculty:- Miss Deepsikha Panigrahi
Subject:- ACT&E	No of Days/per Week Class Allotted :- 04	Semester From: 22.12.2025 to 18.04.2026, No of Weeks:15
Week	**Class Day**	**Theory/Practical Topics**
1st	1st	**1. Fibers and Plastics-** Types of fibers- Steel, Carbon, glass fibers
	2nd	Use of fibers as construction material, properties of Fibers
	3rd	Types of plastics-PVC,RPVC, HDPE,FRP,GRP,etc.Colored plastic sheets
	4th	Use of plastic as construction material
2nd	1st	Artificial Timber-Properties and uses of artificial timber
	2nd	Types of artificial timber available in market.
	3rd	Strength of artificial timber.
	4th	Miscellaneous materials-Properties and uses of acoustics materials
3rd	1st	wall cladding plaster boards, micro-silica
	2nd	Artificial sand, bonding agents, adhesives etc
	3rd	**2. Prefabrication.** Introduction,necessity and scope of prefabrication
	4th	History and current uses of prefabrication
4th	1st	types of prefabricated systems,Classification of prefabrication, advantages and disadvantages of prefabrication
	2nd	The theory and process of prefabricaiion
	3rd	Design principle of prefabricated systems,types of prefabricated elements
	4th	Modular coordination
5th	1st	**Monthly Test-1**
	2nd	Indian standard recommendation for modular planning
	3rd	**3. Earthquake Resistant Construction** Building Configuration
	4th	Lateral load resisting structures Building characteristics
6th	1st	Building characteristics
	2nd	Effect of structural irregularities-vertical irregularities
	3rd	Plan configuration problems.
	4th	Safety consideration during additional construction and alteration of existing Buildings.

7th	1st	Additional strengthening measures in masonry building-corner reinforcement ,lintel band.
	2nd	Sill band, plinth band, roof band. gable band
	3rd	**4. Retrofitting of Structure,**Seismic retrofitting of reinforced concrete buildings
	4th	Seismic retrofitting of reinforced concrete buildings
8th	1st	Seismic retrofitting of reinforced concrete buildings
	2nd	Sources of weakness in RC frame building
	3rd	Sources of weakness in RC frame building
	4th	classification of retrofitting techniques and their uses
9th	1st	classification of retrofitting techniques and their uses
	2nd	**5. Building Services.** Cold water distribution in high rise building, layout of installation
	3rd	Hot water supply -general principles for central plants-layout
	4th	**Monthly Class Test 2**
10th	1st	Sanitation-soil and waste water installation in high rise buildings
	2nd	Electrical services-i)requirements in high rise buildings ii)layout of wiring iii)fuses and their types iv) earthing
	3rd	Lighting-Requirement of lighting,Measurement of light intensity
	4th	Ventilation- Method of ventilation, Problems on ventilation
11th	1st	Mechanical services-lift ,escalator,elevators-types and uses
	2nd	**6. Construction and earth moving equipments,** Planning and selection of construction equipments
	3rd	Study on earth moving equipment like drag line, Tractor
	4th	Bulldozer,Power Shovel.
12th	1st	Study and uses of compacting equipments like tamping rollers,smooth wheel rollers
	2nd	Smooth wheel rollers
	3rd	Pneumatic tired rollers and vibrating compactors
	4th	Owning and operating cost-problems
13th	1st	Owning and operating cost-problems
	2nd	**7. Soil reinforcing techniques.** Necessity of soil reinforcing, Advantages of reinforced soil
	3rd	Use wire mesh and geo-synthetics
	4th	**Monthly Class Test 3**
14th	1st	Use wire mesh and geo-synthetics
	2nd	Strengthening of embankments
	3rd	Slope stabilization in cutting by soil reinforcing techniques.
	4th	Slope stabilization in embankment by soil reinforcing techniques.
15th	1st	Reinforcement of foundation soil.
	2nd	Revision

	3rd	Previous Year Questions & Answer Discussion
	4th	Previous Year Questions & Answer Discussion

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22.12.25