

## LESSON PLAN OF 6<sup>th</sup> SEMESTER CIVIL ENGINEERING

Discipline :- CIVIL	Semester:- 6 <sup>th</sup>	Name of the Teaching Faculty:- Mrs.Sushree Sasmita Sahoo
Subject:- ACT&E	No of Days/per Week Class Allotted :- 04	Semester From:- <u>04.02.2025 to 17.05.2025</u>  No of Weeks:- 15
Week	Class Day	Theory Topics
1 <sup>st</sup>	1 <sup>st</sup>	<b>Fibers and Plastics-</b> Types of fibers- Steel, Carbon, glass fibers
	2 <sup>nd</sup>	Use of fibers as construction material, properties of Fibers
	3 <sup>rd</sup>	Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets
	4 <sup>th</sup>	Use of plastic as construction material.
2 <sup>nd</sup>	1 <sup>st</sup>	Artificial Timbers – Properties and uses of artificial timber
	2 <sup>nd</sup>	Types of artificial timber available in market
	3 <sup>rd</sup>	Strength of artificial timber.
	4 <sup>th</sup>	Miscellaneous materials – Properties and uses of acoustics materials
3 <sup>rd</sup>	1 <sup>st</sup>	Wall claddings, plaster boards, micro-silica
	2 <sup>nd</sup>	Artificial sand, bonding agents, adhesives
	3 <sup>rd</sup>	<b>Prefabrication</b> Introduction, necessity and scope of prefabrication of buildings
	4 <sup>th</sup>	History of prefabrication, current uses of prefabrication
4 <sup>th</sup>	1 <sup>st</sup>	Types of prefabricated systems, classification of prefabrication
	2 <sup>nd</sup>	Advantages and disadvantages of prefabrication,
	3 <sup>rd</sup>	The theory and process of prefabrication
	4 <sup>th</sup>	Design principle of prefabricated systems, types of prefabricated elements
5 <sup>th</sup>	1 <sup>st</sup>	modular coordination
	2 <sup>nd</sup>	Indian standard recommendation for modular planning
	3 <sup>rd</sup>	<b>Earthquake Resistant Construction</b> Building Configuration
	4 <sup>th</sup>	Lateral Load resisting structures
6 <sup>th</sup>	1 <sup>st</sup>	Building characteristics
	2 <sup>nd</sup>	Effect of structural irregularities-vertical irregularities
	3 <sup>rd</sup>	plan configuration problems
	4 <sup>th</sup>	Safety consideration during additional construction and alteration of existing Buildings.
7 <sup>th</sup>	1 <sup>st</sup>	Additional strengthening measures in masonry building-corner reinforcement, lintel band
	2 <sup>nd</sup>	Sill band, plinth band, roof band, gable band
	3 <sup>rd</sup>	<b>Retrofitting of Structures</b> Seismic retrofitting of reinforced concrete buildings
	4 <sup>th</sup>	Seismic retrofitting of reinforced concrete buildings
8 <sup>th</sup>	1 <sup>st</sup>	Seismic retrofitting of reinforced concrete buildings
	2 <sup>nd</sup>	Seismic retrofitting of reinforced concrete buildings
	3 <sup>rd</sup>	Sources of weakness in RC frame building
	4 <sup>th</sup>	Sources of weakness in RC frame building

9 <sup>th</sup>	1 <sup>st</sup>	Sources of weakness in RC frame building
	2 <sup>nd</sup>	Classification of retrofitting techniques and their uses
	3 <sup>rd</sup>	Classification of retrofitting techniques and their uses
	4 <sup>th</sup>	<b>Building Services</b> Cold Water Distribution in high rise building, lay out of installation
10 <sup>th</sup>	1 <sup>st</sup>	Hot water supply – General principles for central plants-layout
	2 <sup>nd</sup>	Sanitation –soil and waste water installation in high rise buildings
	3 <sup>rd</sup>	Electrical services – i) requirements in high rise buildings ii) Layout of wiring - types of wiring
	4 <sup>th</sup>	Fuses and their types , Earthing and their uses
11 <sup>th</sup>	1 <sup>st</sup>	Lighting – Requirement of lighting, Measurement of light intensity
	2 <sup>nd</sup>	Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation) problems on ventilation
	3 <sup>rd</sup>	Mechanical Services- Lifts, Escalator, Elevators – types and uses.
	4 <sup>th</sup>	<b>Construction and earth moving equipments</b> Planning and selection of construction equipments
12 <sup>th</sup>	1 <sup>st</sup>	Planning and selection of construction equipments
	2 <sup>nd</sup>	Study on earth moving equipments like drag line, tractor
	3 <sup>rd</sup>	bulldozer, Power shovel
	4 <sup>th</sup>	Study and uses of compacting equipments like tamping rollers, Smooth wheel rollers
13 <sup>th</sup>	1 <sup>st</sup>	Smooth wheel rollers
	2 <sup>nd</sup>	Pneumatic tired rollers
	3 <sup>rd</sup>	vibrating compactors
	4 <sup>th</sup>	Owning and operating cost – problems
14 <sup>th</sup>	1 <sup>st</sup>	Owning and operating cost – problems
	2 <sup>nd</sup>	<b>Soil reinforcing techniques</b> Necessity of soil reinforcing
	3 <sup>rd</sup>	Use wire mesh and geo-synthetics.
	4 <sup>th</sup>	Use wire mesh and geo-synthetics.
15 <sup>th</sup>	1 <sup>st</sup>	Strengthening of embankments
	2 <sup>nd</sup>	Slope stabilization in cutting and embankments by soil reinforcing techniques.
	3 <sup>rd</sup>	Slope stabilization in cutting and embankments by soil reinforcing techniques.
	4 <sup>th</sup>	Slope stabilization in cutting and embankments by soil reinforcing techniques.

  
 29/01/2025