

LESSON PLAN

DISCIPLINE- CIVIL ENGG.	SEMESTER-6 TH	NAME OF THE TEACHING FACULTY- PRIYABRATA TRIPATHY	
SUBJECT- ACT&E	NO. OF DAYS PER WEEK CLASS ALLOTTED- 03	SEMESTER FROM DATE-10/03/22 TO DATE-10/06/22 NO. OF WEEKS-15	
WEEK	CLASS DAY	THEORY TOPICS	
1 ST	1 st	Advanced construction materials 1.1 Fibers and Plastics- Types of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material	
2 ND	1 st	properties of Fibers. Types of plastics- PVC, RPVC,.	
	2 nd	HDPE, FRP, GRP etc	
	3 rd	. Colored plastic sheets. Use of plastic as construction material.	
3 RD	1 st	1.2 Artificial Timbers – Properties and uses of artificial timber.	
	2 nd	Types of artificial timber available in market, strength of artificial timber.	
	3 rd	1.3 Miscellaneous materials – Properties and uses of acoustics materials, wall claddings, plaster boards,	
4 TH	1 st	micro-silica, artificial sand, bonding agents, adhesives etc.	
	2 nd	Prefabrication 2.1 Introduction, necessity and scope of prefabrication of buildings, ,	
	3 rd	history of prefabrication, current uses of prefabrication ,	
5 TH	1 st	types of prefabricated systems	
	2 nd	advantages and disadvantages of prefabrication,	
	3 rd	classification of prefabrication,	
6 TH	1 st	2.2 The theory and process of prefabrication, design principle of prefabricated systems,	
	2 nd	. types of prefabricated elements, modular coordination	
	3 rd	2.3 Indian standard recommendation for modular planning.	
7 TH	1 st	Earthquake Resistant Construction 3.1 Building Configuration	
	2 nd	3.2 Lateral Load resisting structures	
	3 rd	3.3 Building characteristics	

8 TH	1 st	3.4 Effect of structural irregularities-vertical irregularities, plan configuration problems
	2 nd	3.5 Safety consideration during additional construction and alteration of existing Buildings.
	3 rd	3.6 Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.
9 TH	1 st	Retrofitting of Structures 4.1 Seismic retrofitting of reinforced concrete buildings :
	2 nd	4.2 -Sources of weakness in RC frame building
	3 rd	4.3 -Classification of retrofitting techniques and their uses
10 TH	1 st	5.1 Cold Water Distribution in high rise building, lay out of installation
	2 nd	5.2 Hot water supply – General principles for central plants-layout
	3 rd	5.3 Sanitation –soil and waste water installation in high rise buildings
11 TH	1 st	. 5.4 Electrical services – i) requirements in high rise buildings ii) Layout of wiring
	2 nd	. - types of wiring iii) Fuses and their types iv)Earthing and their uses
	3 rd	5.5 Lighting – Requirement of lighting, Measurement of light intensity
12 TH	1 st	5.6 Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation) problems on ventilation
	2 nd	5.7 Mechanical Services- Lifts, Escalator, Elevators – types and uses.
	3 rd	Construction and earth moving equipments – 6.1 Planning and selection of construction equipments ,
13 TH	1 st	6.2 Study on earth moving equipments like drag line, tractor, bulldozer, Power shovel
	2 nd	6.3 Study and uses of compacting equipments like tamping rollers, Smooth wheel rollers, Pneumatic tired rollers and vibrating compactors
	3 rd	6.4 Owning and operating cost – problems
14 TH	1 st	Soil reinforcing techniques 7.1 Necessity of soil reinforcing
	2 nd	7.2 Use wire mesh and geo-synthetics
	3 rd	7.3 Strengthening of embankments
15 TH	1 st	Slope stabilization in cutting and embankments by soil reinforcing techniques.

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