

LESSON PLAN OF 6 TH SEMESTER CIVIL ENGINEERING(2023-24)		
Discipline :- CIVIL	Semester:- 6TH	Name of the Teaching Faculty: BAISALI SAMANTRAI
Subject:- Advanced Construction Techniques & Equipment	No of Days/per Week Class Allotted :-04	No of Weeks:- 20
Week	Class Day	Theory/ Practical Topics
1 st	1 st	Advanced construction materials 1.1 Fibers and Plastics- Types of fibers- Steel, Carbon, glass fibre
	2 nd	Use of fibers as construction material, properties of Fibers.
	3 rd	Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets
	4 th	Use of plastic as construction material
2 nd	1 st	1.2 Artificial Timbers – Properties and uses of artificial timber
	2 nd	Types of artificial timber available in market
	3 rd	strength of artificial timber.
	4 th	1.3 Miscellaneous materials – Properties and uses of acoustics materials
3 rd	1 st	wall claddings, plaster boards, micro-silica
	2 nd	artificial sand, bonding agents, adhesives etc.
	3 rd	Prefabrication 2.1 Introduction, necessity and scope of prefabrication of buildings
	4 th	history of prefabrication, current uses of prefabrication
4 th	1 st	types of prefabricated systems
	2 nd	classification of prefabrication, advantages and disadvantages of prefabrication,
	3 rd	2.2 The theory and process of prefabrication
	4 th	design principle of prefabricated systems
5 th	1 st	types of prefabricated elements, modular coordination
	2 nd	2.3 Indian standard recommendation for modular planning.
	3 rd	Earthquake Resistant Construction 3.1 Building Configuration
	4 th	3.2 Lateral Load resisting structures
6 th	1 st	3.3 Building characteristics

	2 nd	3.4 Effect of structural irregularities-vertical irregularities, plan configuration problems
	3 rd	3.5 Safety consideration during additional construction and alteration of existing Buildings. 3.6 Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.
	4 th	4.1 Seismic retrofitting of reinforced concrete buildings :
	1 st	Name of the Teaching Faculty:
7 th	2 nd	No of Weeks:- 20
	3 rd	Sources of weakness in RC frame building
	4 th	Sources of weakness in RC frame building
	1 st	-Classification of retrofitting techniques
8 th	2 nd	uses of retrofitting techniques
	3 rd	Building Services 5.1 Cold Water Distribution in high rise building, lay out of installation
	4 th	5.2 Hot water supply – General principles for central plants-layout
	1 st	5.3 Sanitation –soil and waste water installation in high rise buildings
9 th	2 nd	5.4 Electrical services – i) requirements in high rise buildings
	3 rd	ii) Layout of wiring - types of wiring iii) Fuses and their types
	4 th	iv)Earthing and their uses
	1 st	5.5 Lighting – Requirement of lighting, Measurement of light intensity
10 th	2 nd	5.6 Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation)
	3 rd	5.6 Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation)
	4 th	5.7 Mechanical Services- Lifts, Escalator
	1 st	Elevators – types and uses.
11 th	2 nd	Construction and earth moving equipments – 6.1 Planning of construction equipment
	3 rd	selection of construction equipments
	4 th	6.2 Study on earth moving equipments like drag line
	1 st	tractor, bulldozer, Power shovel
12 th	2 nd	6.3 Study and uses of compacting equipments like tamping rollers
	3 rd	Smooth wheel rollers
	4 th	Pneumatic tired rollers

13 th	1 st	vibrating compactors
	2 nd	Soil reinforcing techniques 7.1 Necessity of soil reinforcing
	3 rd	Necessity of soil reinforcing
	4 th	
14 th	1 st	geo-synthetics
	2 nd	7.3 Strengthening of embankments
	3 rd	Slope stabilization in cutting and by soil reinforcing techniques.
	4 th	Slope stabilization in embankments by soil reinforcing techniques.
15 th	1 st	PREVIOUS YEAR QUESTIONS DISCUSSION
	2 nd	PREVIOUS YEAR QUESTIONS DISCUSSION
	3 rd	DOUBT CLEARING CLASS
	4 th	DOUBT CLEARING CLASS
16 th	1 st	PREVIOUS YEAR QUESTIONS DISCUSSION
	2 nd	PREVIOUS YEAR QUESTIONS DISCUSSION
	3 rd	PREVIOUS YEAR QUESTIONS DISCUSSION
	4 th	PREVIOUS YEAR QUESTIONS DISCUSSION
17 th	1 st	PREVIOUS YEAR QUESTIONS DISCUSSION
	2 nd	PREVIOUS YEAR QUESTIONS DISCUSSION
	3 rd	PREVIOUS YEAR QUESTIONS DISCUSSION
	4 th	
18 th	1 st	DOUBT CLEARING CLASS
	2 nd	DOUBT CLEARING CLASS
	3 rd	DOUBT CLEARING CLASS
	4 th	DOUBT CLEARING CLASS
19 th	1 st	DOUBT CLEARING CLASS
	2 nd	DOUBT CLEARING CLASS
	3 rd	DOUBT CLEARING CLASS
	4 th	DOUBT CLEARING CLASS
20 th	1 st	DOUBT CLEARING CLASS
	2 nd	DOUBT CLEARING CLASS
	3 rd	DOUBT CLEARING CLASS
	4 th	

Nyktimay Devi
H.O.D Civil Dept.
O.S.E., Berhampur

[Signature]
Principal
School of Engineering

Priyali Samant