

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN Session-2022-2023

Discipline: Civil Engineering Engg. Semester: 6th

Name of the Teaching Faculty: Bikramaditya Bagh

Subject: ACTE No. of Days/per week class allotted 04

Semester From Date : 14/02/2023 To Date : 23/05/2023 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
1	1 st	Advance construction material Fibres, Types of fibres, steel, carbon, glass fibre
	2 nd	Use of fibres as construction material properties of fibre
	3 rd	Plastics, Types of plastic, PVC, RPVC, FRP, GRP etc. coloured plastic sheets
	4 th	Use of plastic as construction material
2	1 st	Artificial timber - properties and uses of artificial timber
	2 nd	Types of artificial timber available in market
	3 rd	strength of artificial timber
	4 th	Miscellaneous materials - Properties and uses of acoustic materials
3	1 st	wall claddings, plaster board, micro silica
	2 nd	artificial sand, bonding agents, adhesive
	3 rd	Prefabrication:- Introduction, necessity and scope of prefabrication of building
	4 th	history of prefabrication, current uses of prefabrication

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Week	Class Day	Theory /Practical Topics
4	1 st	types of preabrication systems, classification of preabrication
	2 nd	advantages and disadvantages of preabrication
	3 rd	The theory and process of preabrication
	4 th	design principle of preabricated system
5	1 st	types of preabricated elements, modular coordination
	2 nd	Indian standard recommendation for modular planning
	3 rd	Earthquake Resistant Construction Building configuration
	4 th	Lateral load resisting structures
6	1 st	Building characteristic
	2 nd	Effect of structural irregularities- Vertical irregularities
	3 rd	plan configuration problems
	4 th	Safety consideration during additional construction and alteration of existing buildings

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Week	Class Day	Theory /Practical Topics
7	1 st	Additional strengthening measures in masonry building corner reinforcement, lintel band, sill band
	2 nd	plinth band, roof band, gable band
	3 rd	Retrobitting structures Seismic retrobitting of reinforced concrete building
	4 th	seismic retrobitting of reinforced concrete building
8	1 st	sources of weakness in RC frame building
	2 nd	sources of weakness in RC frame building
	3 rd	sources of weakness in RC frame building
	4 th	classification of retrobitting techniques and their uses
9	1 st	classification of retrobitting techniques and their uses
	2 nd	classification of retrobitting techniques and their uses
	3 rd	Building Services cold water distribution in high rise building layout of installation
	4 th	Hot water supply. General principles for central plants layout

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Week	Class Day	Theory /Practical Topics
10	1 st	Sanitation- soil and waste water installation in high rise building
	2 nd	Electricals services- i) requirements in high rise building ii) Layout of wirings - types of wiring
	3 rd	iii) Fuses and their types, iv) Earthing and their uses
	4 th	Lighting: Required of lighting, Measurement of light intensity
11	1 st	Ventilation - Methods of ventilation (Natural and artificial systems of ventilation) problems on ventilation
	2 nd	Mechanical Services - Lifter, Escalator, Elevator, types and uses
	3 rd	Construction and earth moving equipments- Planning and selection of construction equipments
	4 th	Study on earth moving equipments like dragline
12	1 st	tractor
	2 nd	bulldozer
	3 rd	power shovel
	4 th	study and uses of compacting equipments like tamping rollers

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13	1 st	smooth wheel rollers, pneumatic tired rollers
	2 nd	vibrating compactors
	3 rd	owning and operating cost-problem
	4 th	owning and operating cost problem
14	1 st	Soil reinforcing techniques Necessity of soil reinforcing
	2 nd	Use wire mesh and geo-synthetics
	3 rd	Use wire mesh and geo-synthetics
	4 th	Use wire mesh and geo-synthetics
15	1 st	strengthening of embankments
	2 nd	strengthening of embankments
	3 rd	slope stabilization in cutting
	4 th	embankments by soil reinforcing techniques

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