

PNS SCHOOL OF ENGINEERING TECHNOLOGY

LESSION PLAN

BRANCH-CIVIL	SEMESTER-6TH	NAME- ER.DEVIPRASAD BISWAL
SUBJECT- ADVANCED CONSTRUCTION TECHNIQUER AND EQUIPMENT TH- 3	NO OF DAYS PER WEEK -6 CLASS ALLOTTED- 60	SEMESTER FROM 13.02.2023 TO 24.05.2023
WEEK	CLASS DAY	THEORY TOPICS
FEBRUARY(3RD)	1ST	Advanced construction materials
	2ND	Fibers and Plastics
	3RD	Types of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material, properties of Fibers
	4TH	Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material
	5TH(2CLASSES)	Artificial Timbers – Properties and uses of artificial timber.
4TH	1ST	Types of artificial timber available in market, strength of artificial timber.
	2ND	Miscellaneous materials
	3RD	Properties and uses of acoustics materials, wall claddings, plaster boards, micro-silica, artificial sand, bonding agents, adhesives etc.
	4TH	Prefabrication
	5TH(2CLASSES)	Introduction,
5TH	1ST	, necessity and scope of prefabrication of buildings
	2ND	history of prefabrication, current uses of prefabrication
MARCH(1ST)	3RD	types of prefabricated systems, classification of prefabrication
	4TH	advantages and disadvantages of prefabrication
	5TH(2CLASSES)	The theory and process of prefabrication,
2ND	1ST	design principle of prefabricated systems
	4TH	types of prefabricated elements, modular coordination
	5TH(2CLASSES)	Indian standard recommendation for modular planning.
3RD	1ST	Earthquake Resistant Construction
	2ND	Building Configuration
	3RD	Lateral Load resisting structures
	4TH	Building characteristics
	5TH(2CLASSES)	Effect of structural irregularities-vertical irregularities, plan configuration problems
	1ST	Safety consideration during additional construction and alteration of existing Buildings

4TH	2ND	Additional strengthening measures in masonry building-corner reinforcement
	3RD	lintel band, sill band, plinth band, roof band, gable band etc.
	4TH	Retrofitting of Structures
	5TH(2CLASSES)	Seismic retrofitting of reinforced concrete buildings :
5TH	1ST	Sources of weakness in C35 frame building
	2ND	Classification of retrofitting techniques and their uses
	3RD	Building Services
	5TH(2CLASSES)	Cold Water Distribution in high rise building, lay out of installation
APRIL(2ND)	1ST	Hot water supply – General principles for central plants-layout
	2ND	Sanitation –soil and waste water installation in high rise buildings
	3RD	Electrical services
	4TH	i) requirements in high rise buildings ii) Layout of wiring - types of wiring
3RD	1ST	iii) Fuses and their types iv)Earthing and their uses
	2ND	Lighting – Requirement of lighting
	3RD	Measurement of light intensity
	4TH	Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation) problems on ventilation
4TH	1ST	Mechanical Services-
	2ND	Lifts, Escalator, Elevators – types and uses
	3RD	Construction and earth moving equipments –
	4TH	Planning and selection of construction equipments
5TH	1ST	Study on earth moving equipments like drag line, tractor, bulldozer, Power shovel
	2ND	Study and uses of compacting equipments
	3RD	tamping rollers,
	4TH	, Smooth wheel rollers,
	5TH(2CLASSES)	Pneumatic tired rollers
MAY(1ST)	1ST	vibrating compactors
	2ND	Owning and operating cost – problems
	3RD	Soil reinforcing techniques
	4TH	Necessity of soil reinforcing.
2ND	1ST	Use wire mesh and geo-synthetics
	2ND	Strengthening of embankments
	3RD	s, Slope stabilization in cutting and embankments by soil reinforcing techniques.
	4TH	REVISION
	5TH(2 CLASSES)	REVISION
3RD	1ST	REVISION
	2ND	REVISION
	3RD	REVISION
	4TH	PREVIOUS YEAR QUESTION DISCUSSION
	5TH(2 CLASSES)	PREVIOUS YEAR QUESTION DISCUSSION
4TH	1ST	PREVIOUS YEAR QUESTION DISCUSSION
	2ND	PREVIOUS YEAR QUESTION DISCUSSION

	3RD	PREVIOUS YEAR QUESTION DISCUSSION

Deviprasad Biswal .

SIGN OF LECTURE

Sudeeptha Mishra

SIGN OF HOD