

DISCIPLIN	SEMESTER	NAME OF THE TEACHING FACULTY
CIVIL ENGINEERING	6 th	SHABNAM PATTANAIK
SUBJECT	NO OF DAY PER WEEK CLASS ALLOTTED	SEMESTER FROM DATE - 10/03/2022 TO DATE - 30/06/2022 NO OF WEEKS - 18 WEEKS
ADVANCED CONSTRUCTION TECHNIQUE AND EQUIPMENT	4	

MONTH	WEEK	CLASSDAY	THEORY TOPICS
MARCH	1 st	1 st	CHAPTER-1 * Introduction: Fibres and plastics all types of fibres, steel and carbon, fibres.
		2 nd	* Glass fibres and carbon fibres.
		3 rd	* Use of fiber as a construction material., properties of fibres.
	2 nd	1 st	* Types of plastics - PVC, RPVC.
		2 nd	* Types of plastics - HDPE, GRP etc.
		3 rd	* Colored plastic sheets
		4 th	* Use of plastic and construction material.
	3 rd	1 st	* class test and doubt clear class.
		2 nd	* Artificial timber properties and uses of artificial timber.
		3 rd	* Types of artificial timber of available in market Strength of artificial timber.

Month	Week	Class day	Theory topics
APRIL	1 st	1 st	* Miscellaneous material properties uses of acoustic materials.
		2 nd	* wall cladding plaster boards.
		3 rd	* Micro-silica artificial sand, bonding agents adhesives etc.
		4 th	* Doubt clear class.
	2 nd	1 st	* Introduction of building history of prefabrication.
		2 nd	* Necessity and scope of prefabrication.
		3 rd	* Current use of prefabrication the theory.
	3 rd	1 st	* process of prefabrication and these systems.
		2 nd	* classification of prefabrication
		3 rd	* Advantages of disadvantages of prefabrication.
		4 th	* Design principle of prefabrication system.

Month	Week	Class day	Topics
	4th	1st	* Types of prefabricated elements modular construction.
		2nd	* Indian standard recommendation for planning.
		3rd	* class test
		4th	* Building configuration.
MAY	1st	1st	* Lateral load resistance structure.
		2nd	* Building characteristics
		3rd	* Effect of structural irregularities vertical. Plan irregular.
	2nd	1st	* plan configuration problems.
	3rd	2nd	* Safety consideration during additional construction.
		3rd	* Alteration of existing building.
		4th	* Additional strengthening measures in masonry buildings, corner reinforcement.

Month	Week	class day	TOPICS
	3 rd	1 st	* Sill-band, plinth band, roof band, gable band etc.
		2 nd	* Seismic retrofitting of reinforced concrete buildings.
		3 rd	* Sources of weakness in RC frame buildings.
	4 th	1 st	* Classification of retrofitting techniques and their uses.
		2 nd	* Cold water distribution in high rise buildings.
		3 rd	* Lay out of installation.
		4 th	* Hot water supply. General principles of central plants-lay out.
June	1 st	1 st	* Sanitation-soil and waste water installation in high rise buildings.
		2 nd	* Electrical-services requirements in high rise buildings.
	2 nd	1 st	* Layout of windows and types of windows.

Month	Week	Class Day	TOPICS
		2 nd	<ul style="list-style-type: none"> * Fuses and their uses. * Earthing and their uses. * Requirement of lighting.
		3 rd	<ul style="list-style-type: none"> * Methods of ventilation, natural and artificial. mechanical services lifts escalators.
	3 rd	1 st	<ul style="list-style-type: none"> * Planning and selection of construction equipments. Study on earth moving equipment like drag line.
		2 nd	<ul style="list-style-type: none"> * Tractors, bulldozer, power shovel.
		3 rd	<ul style="list-style-type: none"> * Study and uses of compacting equipments like tamping rollers.
		4 th	<ul style="list-style-type: none"> * Smooth wheel rollers pneumatic tyred rollers and vibration compactor.
	4 th	1 st	<ul style="list-style-type: none"> * Driving and operating rock problems.
		2 nd	<ul style="list-style-type: none"> * Necessity of soil reinforcing.

Month	Week	class day	TOPICS
		3 rd	* Use wire mesh and geo synthetic.
		4 th	* Geo synthetic system.
	5 th	1 st	* Strengthening of embankments slope stabilization collar
		2 nd	* Embankment by soil membrane technique.