LESSON PLAN FOR SUMMER 2022

DISCIPLINE:- CIVIL ENGG.		SEMESTER:-6TH SEM 1ST SHIFT	NAME OF THE TEACHING FACULTY:- SURYASMINI SWAIN(PTGF, CIVIL)
SUBJECT:- Advanced Construction Techniques & Equipment	**DATE**	**NO. OF DAYS/PER WEEK CLASS ALLOTED:- 4T**	**SEMESTER - 6TH SEM 1st SHIFT FROM DATE-10/03/2022 TO DATE- 10/06/2022 NO. OF WEEKS-14 WEEKS**
WEEK		CLASS DAY	THEORY TOPICS
1ST WEEK	3/10/2022	1ST	1 Advanced construction materials 1.1 Fibers and PlasticsTypes of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material, properties of Fibers. Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material.
2ND WEEK	3/14/2022	2ND	1.1 Fibers and PlasticsTypes of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material, properties of Fibers. Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material.
	3/16/2022	3RD, 4TH	1.1 Fibers and PlasticsTypes of fibers- Steel, Carbon, glass fibers, Use of fibers as construction material, properties of Fibers. Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material.
	3/17/2022	1ST	1.2 Artificial Timbers – Properties and uses of artificial timber. Types of artificial timber available in market, strength of artificial timber.
3RD WEEK	3/21/2022	2ND	1.2 Artificial Timbers – Properties and uses of artificial timber. Types of artificial timber available in market, strength of artificial timber.
	3/23/2022	3RD, 4TH	1.2 Artificial Timbers – Properties and uses of artificial timber. Types of artificial timber available in market, strength of artificial timber.
	3/24/2022	1ST	1.3 Miscellaneous materials – Properties and uses of acoustics materials, wall claddings, plaster boards, micro-silica, artificial sand, bonding agents, adhesives etc.
	3/28/2022	2ND	1.3 Miscellaneous materials – Properties and uses of acoustics materials, wall claddings, plaster boards, micro-silica, artificial sand, bonding

4TH WEEK	3/30/2022	3RD, 4TH	2 Prefabrication 2.1 Introduction, necessity and scope of prefabrication of buildings, history of prefabrication, current uses of prefabrication , types of prefabricated systems, classification of prefabrication, advantages and disadvantages of prefabrication,
	3/31/2022	1ST	2.1 Introduction, necessity and scope of prefabrication of buildings, history of prefabrication, current uses of prefabrication , types of prefabricated
5TH WEEK	4/4/2022	2ND	2.2 The theory and process of prefabrication, design principle of prefabricated systems, types of prefabricated elements, modular coordination
	4/6/2022	3RD, 4TH	2.2 The theory and process of prefabrication, design principle of prefabricated systems, types of prefabricated elements, modular
	4/7/2022	1ST	2.3 Indian standard recommendation for modular planning.
6TH WEEK	4/11/2022	2ND	2.3 Indian standard recommendation for modular planning.
	4/13/2022	3RD, 4TH	3 Earthquake Resistant Construction 3.1 Building Configuration 3.2 Lateral Load resisting structures
7TH WEEK	4/18/2022	2ND	3.3 Building characteristics
	4/20/2022	3RD, 4TH	3.4 Effect of structural irregularities-vertical irregularities, plan configuration problems
	4/21/2022	1ST	3.5 Safety consideration during additional construction and alteration of existing Buildings.
8TH WEEK	4/25/2022	2ND	3.6 Additional strengthening measures in masonry building-corner reinforcement
	4/27/2022	3RD, 4TH	lintel band, sill band, plinth band, roof band, gable band etc. 4 Retrofitting of Structures 4.1 Seismic retrofitting of reinforced concrete buildings :
	4/28/2022	1ST	4.1 Seismic retrofitting of reinforced concrete buildings :
9TH WEEK	5/2/2022	2ND	4.1 Seismic retrofitting of reinforced concrete buildings :
	5/4/2022	3RD, 4TH	4.2 -Sources of weakness in RC frame building
	5/5/2022	1ST	4.3 -Classification of retrofitting techniques and their uses
10TH WEEK	5/9/2022	2ND	4.3 -Classification of retrofitting techniques and their uses
	5/11/2022	3RD, 4TH	4.3 -Classification of retrofitting techniques and their uses 5 Building Services 5.1 Cold Water Distribution in high rise building, lay out of installation
	5/12/2022	1ST	5.2 Hot water supply – General principles for central plants-layou

11TH WEEK	5/18/2022	3RD, 4TH	5.3 Sanitation –soil and waste water installation in high rise buildings 5.4 Electrical services – i) requirements in high rise buildings ii) Layout of wiring - types of wiring iii) Fuses and their types iv)Earthing and their uses
	5/19/2022	1ST	5.5 Lighting – Requirement of lighting, Measurement of light intensity
12TH WEEK	5/23/2022	2ND	5.6 Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation) problems on ventilation
	5/25/2022	3RD, 4TH	5.7 Mechanical Services- Lifts, Escalator, Elevators – types and uses.
	5/26/2022	1ST	6.1 Planning and selection of construction equipments
13TH WEEK	5/31/2022	1ST	6.1 Planning and selection of construction equipments
	6/1/2022	3RD, 4TH	6.1 Planning and selection of construction equipments 6.2 Study on earth moving equipments like drag line, tractor, bulldozer, Power shove
	6/2/2022	1ST	6.2 Study on earth moving equipments like drag line, tractor, bulldozer, Power shovel
14TH WEEK	6/6/2022	2ND	6.2 Study on earth moving equipments like drag line, tractor, bulldozer, Power shovel
	6/8/2022	3RD, 4TH	6.3 Study and uses of compacting equipments like tamping rollers, Smooth wheel rollers, Pneumatic tired rollers and vibrating compactors
	6/9/2022	1ST	6.4 Owning and operating cost – problems
EXTRA CLASSES REQUIRED			6.4 Owning and operating cost – problems
			7 Soil reinforcing techniques 7.1 Necessity of soil reinforcing.
			7.1 Necessity of soil reinforcing.
			7.2 Use wire mesh and geo-synthetics.
			7.2 Use wire mesh and geo-synthetics.
			7.3 Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques.
			7.3 Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques.
			7.3 Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques.

			7.3 Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques.