

LESSON PLAN					
Academic Session :- 2021-2022					
Discipline: Civil.Engineering			Name of teaching faculty: Swagatika Dani		
Subject: Advanced Construction Techniques & Equipment(Th.3)			Semester from Date:10th March 2022 to 10th June 2022		
Semester: 6 th			No. of weeks: 14		4P/week
No. of Days/ week class allotted: 04 period per			Total period: 60		
MON TH	Wee k	DATE	DAYS/PERIOD	Syllabus to be covered	NO. OF PERIODS AVAILABL
March	1st			CHAPTER-1:Advanced construction materials(10P)	
				1.1.Fibers and Plastics:	1
		10/03/2022	Thursday	1.1.1.Type of fibers-Steel,Carbon, glass fibers,Use of fibers as construction material	1
		12/03/2022	Saturday	1.1.2.Use of fibers as construction material, properties of fibers	1
	2nd	15/03/2022	Tuesday	1.1.3.Type of plastics-PVC, RPVC,HDPE,FRP,GRP etc	1
		16/03/2022	Wednesday	1.1.4.Colored plastic sheets, Use of plastic as construction material	1
				1.2.Artificial Timbers:	
		17/03/2022	Thursday	1.2.1.Properties of and uses of artificial timber	
	3rd	22/03/2022	Tuesday	1.2.2.Type of artificial timber available in market	1
		23/30/22	Wednesday	1.2.3.Strength of artificial timber	1
				1.3.Miscellaneous materials:	1
		24/03/2022	Thursday	1.3.1.Properties and uses of acoustics materials, wall claddings	1
		26/03/2022	Saturday	1.3.2.Properties and uses of Plasters boards, micro silica, artificial sand, bonding agents, adhesives etc	1
	4th			CHAPTER-2:Prefabrication(8P)	
		29/03/2022	Tuesday	2.1.Introduction, necessity and scope of prefabrication of buildings	1
		30/03/2022	Wednesday	2.2.History of prefabrication, current uses of prefabrication, type of prefabricated systems	
		31/03/2022	Thursday	2.3.Type of prefabricated systems, classification of prefabrication	1
April	1st	02/04/2022	Saturday	2.4.Advantages and disadvantages of of prefabrication	1
	2nd	05/04/2022	Tuesday	2.5.The theory and process of prefabrication	1
		06/04/2022	Wednesday	2.6.Design principle of prefabricated systems, type of prefabricated elements.	1
		07/04/2022	Thursday	2.7.Type of prefabricated element, modular coordination	1
		09/04/2022	Saturday	2.8.Indian standard recommendation for modular planning	1
	3rd			CHAPTER-3: Earthquake Resistant Construction(8P)	
		12/04/2022	Tuesday	3.1.Building configuration, Lateral load resisting structures	1
		13/04/2022	Wednesday	3.2.Building characteristics	1
		16/04/2022	Saturday	3.3.Effect of structural irregularities-vertical irregularities, plan configuration	1
	4th	19/04/2022	Tuesday	3.4.Safety consideration during additional construction	1
		20/04/2022	Wednesday	3.5.Alteration of existing buildings	1
		21/04/2022	Thursday	3.8.Design of tension members	1
		23/04/2022	Saturday	3.8.Design considering strength only	1
		26/04/2022	Tuesday	3.6.Additional strengthening measures in masonry buildings	1
		27/04/2022	Wednesday	3.7.Corner reinforcement, lintel band, sill band,plinth band, roof band, gable band etc	1
		28/04/2022	Thursday	3.8.Class Test; Revision	
				CHAPTER-4:Retrofitting of Structures(8P)	1

	5th	30/04/2022	Saturday	4.1.Seismic retrofitting of reinforced concrete building	
May	1st	04/05/2022	Wednesday	4.2.Seismic retrofitting of reinforced concrete buildings	1
		05/05/2022	Thursday	4.3.Sources of weakness in RC frame buildings	1
		07/05/2022	Saturday	4.4.Sources of weakneaa in RC frame buildings	1
		10/05/2022	Tuesday	4.5.Classification of retrotting techniques	1
	2nd	11/05/2022	Wednesday	4.6.Classification of retrofiting techniques	1
		12/05/2022	Thursday	4.7.Uses of retrofitting techniques	1
		14/05/2022	Saturday	4.8. Uses of retrofitting techniques	1
				CHAPTER-5:Building Services(8P)	
	3rd	17/05/2022	Tuesday	5.1.Cold water Distribution in high rise building, lay out of installation	
		18/05/2022	Wednesday	5.2.Hot water supply-General principles for central plants- layout	1
		19/05/2022	Thursday	5.3.Sanitation-Soil and waste water installation in high rise buildings	1
		21/05/2022	Saturday	5.4.Electrical services-(i)requirements in high rise buildings. (ii)Lay	1
		24/05/2022	Tuesday	5.5.(iii)Fuses and their types,(iv) Earthing and their uses	1
		25/05/2022	Wednesday	5.6.Lighting- Requirement of lighting, measurement of light intensity	1
		26/05/2022	Thursday	5.7.Ventilation- Methods of ventilation (Natural and artificial system of ventilation)	1
		28/05/2022	Saturday	5.8.Mechanical services- Lift, Escalator, Elevators-Types and uses	1
	5th			CHAPTER-6:Construction and earth moving equipments(10P)	
June	1st	31/05/2022	Tuesday	6.1.Planning of construction equipments	1
		01/06/2022	Wednesday	6.2.Selection of construction equipments	1
		02/06/2022	Thursday	6.3.Study on earth moving equipments like drag line ,tractor	
		04/06/2022	Saturday	6.4.Bulldozer, power shovel	1
	2nd	07/06/2022	Tuesday	6.5.Study of compactinv equipments like tamping rollers, smooth wheel rollers	1
		08//06/2022	Wednesday	6.6.Pneumatic tired rollers and vibrating compactors	1
		09/06/20200	Thursday	6.7.Uses of compacting equipments	1
				6.5. Tubular tension members	1
				6.8.Owing and operating cost-Problems	1
				6.9.Owing and operating cost-Problems	
				6.10.Class test and Revision	1
				CHAPTER-7:Soil reinforcing techniques(8P)	
				7.1.Necessity of soil reinforcing	1
				7.2.Use of wire mesh	1
				7.3.Use of geo synthetics	1
				7.4.Strengthening of embankments	1
				7.5.Slope stabilization in cutting by soil reinforcing techniques	1
				7.6.Slope stabilization in embankments by soil reinforcing techniques	1
				7.7.Class Test	1
				7.8.Revision	1
				EXTRA CLASS	