

LESSON PLAN

Academic Session :-2023 Summer

Discipline: Civil.Engineering

Name of teaching faculty: Swagatika Dani

Subject: Advanced Construction Techniques & Equipment(Th.3)

Semester from Date:14/02/ 2023 to 23/05/2023

Semester: 6th

No. of weeks: 15

4P/week

No. of Days/ week class allotted: 04 period per week(Monday, Tuesday, Thursday, Friday)

Total period: 60

MONTH	Week	DATE	DAYS/ PERIOD	Syllabus to be covered	NO. OF PERIODS
February				CHAPTER-1:Advanced construction materials(10P)	10
	3rd			1.1.Fibers and Plastics:	1
		14/02/2023	Tuesday	1.1.1.Type of fibers-Steel,Carbon, glass fibers,Use of fibers as construction material	1
		16/02/2023	Thursday	1.1.2.Use of fibers as construction material, properties of fibers	1
		17/02/2023	Friday	1.1.3.Type of plastics-PVC, RPVC,HDPE,FRP,GRP	1
		20/02/2023	Monday	1.1.4.Colored plastic sheets, Use of plastic as construction material	1
	4th			1.2.Artificial Timbers:	
		21/02/2023	Tuesday	1.2.1.Properties of and uses of artificial timber	1
		23/02/2023	Thursday	1.2.2.Type of artificial timber available in market	1
		24/02/2023	Friday	1.2.3.Strength of artificial timber	1
	5th			1.3.Miscellaneous materials:	1
		27/02/2023	Monday	1.3.1.Properties and uses of acoustics materials, wall claddings	1
		28/02/2023	Tuesday	1.3.2.Properties and uses of Plasters boards, micro silica, artificial sand, bonding agents, adhesives etc	1
MARCH	1st	02/03/2023	Thursday	1.3.3.Bonding agents, Adhesive etc	1
				CHAPTER-2:Prefabrication(8P)	8
	2nd	03/03/2023	Friday	2.1.Introduction, necessity and scope of prefabrication of buildings	1
		06/03/2023	Monday	2.2.History of prefabrication, current uses of prefabrication, type of prefabricated systems	1
		09/03/2023	Thursday	2.3.Type of prefabricated systems, classification of prefabrication	1
		10/03/2023	Friday	2.4.Advantages and disadvantages of prefabrication	1
		13/03/2023	Monday	2.5.The theory and process of prefabrication	1
		14/03/2023	Tuesday	2.6.Design principle of prefabricated systems, type of prefabricated elements.	1
		16/03/2023	Thursday	2.7.Type of prefabricated element, modular coordination	1
		17/03/2023	Friday	2.8.Indian standard recommendation for modular planning	1
3rd					

			CHAPTER-3: Earthquake Resistant	8
	20/03/2023	Monday	3.1. Building configuration, Lateral load resisting structures	1
	21/03/2023	Tuesday	3.2. Building characteristics	1
	23/03/2023	Thursday	3.3. Effect of structural irregularities-vertical irregularities, plan configuration	1
4th	24/03/2023	Friday	3.4. Safety consideration during additional construction	1
	27/03/2023	Monday	3.5. Alteration of existing buildings	1
5th	28/03/2023	Tuesday	3.8. Design of tension members	1
	31/03/2023	Friday	3.8. Design considering strength only	1
	03/04/2023	Monday	3.6. Additional strengthening measures in masonry buildings	1
2nd	04/04/2023	Tuesday	3.7. Corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc	1
	06/04/2023	Thursday	3.8. Class Test; Revision	1
			CHAPTER-4:Retrofitting of Structures(8P)	8
	10/04/2023	Monday	4.1. Seismic retrofitting of reinforced concrete building	
	11/04/2023	Tuesday	4.2. Seismic retrofitting of reinforced concrete buildings	1
3rd	13/04/2023	Thursday	4.3. Sources of weakness in RC frame buildings	1
	17/04/2023	Monday	4.4. Sources of weakneaa in RC frame buildings	1
	18/04/2023	Tuesday	4.5. Classification of retrotting techniques	1
4th	20/04/2023	Thursday	4.6. Classification of retrofitting techniques	1
	21/04/2023	Friday	4.7. Uses of retrofitting techniques	1
	24/04/2023	Monday	4.8. Uses of retrofitting techniques	1
			CHAPTER-5:Building Services(8P)	8
	25/04/2023	Tuesday	5.1. Cold water Distribution in high rise building, lay out of installation	1
	27/04/2023	Thursday	5.2. Hot water supply-General principles for central plants- layout	1
5th	28/04/2023	Friday	tation-Soil and waste water installation in high rise b	1
	01/05/2023	Monday	5.4. Electrical services-(i)requirements in high rise buildings. (ii)Lay of wiring type of wiring	1
	02/05/2023	Tuesday	5.5. (iii)Fuses and their types,(iv) Earthing and their uses	1
1st	04/05/2023	Thursday	5.6. Lighting- Requirement of lighting, measurement of light intensity	1
	08/05/2023	Monday	5.7. Ventilation- Methods of ventilation (Natural and artificial system of ventilation)	1
	09/05/2023	Tuesday	5.8. Mechanical services- Lift, Escalator, Elevators- Types and uses	1
			CHAPTER-6:Construction and earth moving equipments(10P)	10
	11/05/2023	Thursday	6.1. Planning of construction equipments	1
2nd	12/05/2023	Friday	6.2. Selection of construction equipments	1
	15/05/2023	Monday	6.3. Study on earth moving equipments like drag line, tractor	

		16/05/2023	Tuesday	6.4.Bulldozer, power shovel	1
	3rd	18/05/2023	Thursday	6.5.Study of compacting equipments like tamping rollers, smooth wheel rollers	1
		22/05/2023	Monday	6.6.Pneumatic tired rollers and vibrating compactors	1
	4th	23/05/2023	Tuesday	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)	8
				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
			EXTRA	7.7.Class Test	1
			CLASS	7.8.Revision	1