LESSON PLAN

Academic Session :-(2023-2024)2024-Summer

Discipline: Civil.Engineering				Name of teaching faculty: Swagatika Dani	
Subject: Advanced Construction Techniques & Equipment(Th.3)				**Semester from Date:16/01/2024 to 26/04/2024**	
Semester: 6th				**No. of weeks: 15**	**4P/week**
No. of Days/ week class allotted: 04					**Total period: 6(**
MONTH	**Week**	**DATE**	**DAYS/PERIOD**	**Syllabus to be covered**	**NO. OF PERIODS AVAILABLE**
				CHAPTER-1:Advanced construction materials(10P)	**10**
				1.1.Fibers and Plastics:	1
		16/01/2024	Tuesday	1.1.1.Type of fibers-Steel,Carbon, glass fibers,Use of fibers as construction material	1
		18/01/2024	Thursday	1.1.2.Use of fibers as construction material, properties of fibers	1
	3rd	20/01/2024	Friday	1.1.3.Type of plastics-PVC, RPVC,HDPE,FRP,GRP etc	1
		22/01/2024	Monday	1.1.4.Colored plastic sheets, Use of plastic as construction material	1
JANUARY				**1.2.Artificial Timbers:**	
		25/01/2024	Thursday	1.2.1.Properties of and uses of artificial timber	1
		27/01/2024	Saturday	1.2.2.Type of artificial timber available in market	1
	4th	27/01/2024	Saturday	1.2.3.Strength of artificial timber	1
				1.3.Miscellaneous materials:	1
		29/01/2024	Monday	1.3.1.Properties and uses of acoustics materials, wall claddings	1
	5th	30/01/2024	Tuesday	1.3.2.Properties and uses of Plasters boards, micro silica, artificial sand, bonding agents, adhesives etc	1
		01/02/2024	Thursday	1.3.3.Bonding agents, Adhesive etc	1
				CHAPTER-2:Prefabrication(8P)	**8**
	1st	03/02/2024	Saturday	2.1.Introduction, necessity and scope of prefabrication of buildings	1
		05/02/2024	Monday	2.2.History of prefabrication, current uses of prefabrication, type of prefabricated systems	1
		08/02/2024	Thursday	2.3.Type of prefabricated systems, classification of prefabrication	1
	2nd	10/02/2024	Saturday	2.4.Advantages and disadvantages of of prefabrication	1
		12/02/2024	Monday	2.5.The theory and process of prefabrication	1
		13/02/2024	Tuesday	2.6.Design principle of prefabricated systems, type of prefabricated elements.	1
MARCH		15/02/2024	Thursday	2.7.Type of prefabricated element, modular coordination	1

	3rd	17/02/2024	Saturday	2.8.Indian standard recommendation for modular planning	1
				CHAPTER-3: Earthquake Resistant Construction(8P)	8
		19/02/2024	Monday	3.1.Building configuration, Lateral load resisting structures	1
		20/02/2024	Tuesday	3.2.Building characteristics	1
		22/02/2024	Thursday	3.3.Effect of structural irregularities-vertical irregularities, plan configuration	1
	4th	24/02/2024	Saturday	3.4.Safety consideration during additional construction	1
		26/02/2024	Monday	3.5.Alteration of existing buildings	1
		27/02/2024	Tuesday	3.8.Design of tension members	1
	5th	29/02/2024	Thursday	3.8.Design considering strength only	1
	1st	02/03/2024	Saturday	3.6.Additional strengthening measures in masonry buildings	1
		04/03/2024	Monday	3.7.Corner reinforcement, lintel band, sill band,plinth band, roof band, gable band etc	1
		07/03/2024	Thursday	3.8.Class Test; Revision	1
				CHAPTER-4:Retrofitting of Structures(8P)	8
	2nd	09/03/2024	Saturday	4.1.Seismic retrofitting of reinforced concrete building	1
		11/03/2024	Monday	4.2.Seismic retrofitting of reinforced concrete buildings	1
		12/03/2024	Tuesday	4.3.Sources of weakness in RC frame buildings	1
		14/03/2024	Thursday	4.4.Sources of weakneaa in RC frame buildings	1
MARCH	3rd	16/03/2024	Saturday	4.5.Classification of retrotting techniques	1
		18/03/2024	Monday	4.6.Classification of retrofitting techniques	1
		19/03/2024	Tuesday	4.7.Uses of retrofitting techniques	1
		21/03/2024	Thursday	4.8. Uses of retrofitting techniques	1
				CHAPTER-5:Building Services(8P)	8
	4th	23/03/2024	Saturday	5.1.Cold water Distribution in high rise building, lay out of installation	1
		28/03/2024	Thursday	5.2.Hot water supply-General principles for central plants-layout	1
	5th	30/03/2024	Saturday	5.3.Sanitation-Soil and waste water installation in high rise	1
		02/04/2024	Tuesday	5.4.Electrical services-(i)requirements in high rise buildings. (ii)Lay of wiring type of wiring	1
		04/04/2024	Thursday	5.5.(iii)Fuses and their types,(iv) Earthing and their uses	1
	1st	06/04/2024	Saturday	5.6.Lighting- Requirement of lighting, measurement of light intensity	1
		08/04/2024	Monday	5.7.Ventilation- Methods of ventilation (Natural and artificial system of ventilation)	1
		09/04/2024	Tuesday	5.8.Mechanical services- Lift, Escalator, Elevators-Types and uses	1
				CHAPTER-6:Construction and earth moving equipments(10P)	10
	2nd	13/04/2024	Saturday	6.1.Selection of construction equipments	1

		15/04/2024	Monday	6.2.Selection of construction equipments	1
		16/04/2024	Tuesday	6.3.Study on earth moving equipments like drag line ,tractor	
		18/04/2024	Thursday	6.4.Bulldozer, power shovel	1
	3rd	20/04/2024	Saturday	6.5.Study of compactinv equipments like tamping rollers, smooth wheel rollers	1
		22/04/2024	Monday	6.6.Pneumatic tired rollers and vibrating compactors	1
		23/04/2024	Tuesday	6.7.Uses of compacting equipments	1
	4th	25/04/2024	Thursday	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
		CLASSES		7.8.Revision	1