

LESSON PLAN (SUMMER-2022)		
<b>SUBJECT- ADVANCE CONSTRUCTION TECHNIQUE AND EQUIPMENTS (Th.3)</b>		<b>SEMESTER-6<sup>th</sup> , 3<sup>rd</sup> YEAR</b>
<b>FACULTY-SOUMYA SUCHARITA MAHARANA</b>		
<b>DATE</b>	<b>NO OF CLASSES</b>	<b>TOPICS TO BE COVERED</b>
<b>CHAPTER-1: ADVANCED CONSTRUCTION MATERIALS</b>		
11.03.2022	01	Fibers and Plastics- Types of fibers- Steel, Carbon, glass fibers
14.03.2022	01	Use of fibers as construction material, properties of Fibers.
15.03.2022	02	Types of plastics- PVC, RPVC, HDPE, FRP, GRP etc. Colored plastic sheets. Use of plastic as construction material.
21.03.2022	01	Artificial Timbers – Properties and uses of artificial timber. Types of artificial timber available in market, strength of artificial timber.
22.03.2022	02	Miscellaneous materials – Properties and uses of acoustics materials, wall claddings, plaster boards, micro-silica, artificial sand, bonding agents, adhesives etc.
25.03.2022	01	<b>CLASS TEST</b>
<b>CHAPTER-2: PREFABRICATION</b>		
28.03.2022	01	Introduction, necessity and scope of prefabrication of buildings, history of prefabrication, current uses of prefabrication
29.03.2022	02	types of prefabricated systems, classification of prefabrication, advantages and disadvantages of prefabrication
04.04.2022	01	The theory and process of prefabrication, design principle of prefabricated systems, types of prefabricated elements, modular coordination
05.04.2022	02	Indian standard recommendation for modular planning.
<b>CHAPTER-3: EARTHQUAKE RESISTANT CONSTRUCTION</b>		
08.04.2022	01	Building Configuration Lateral Load resisting structures
11.04.2022	01	Building characteristics
12.04.2022	02	Effect of structural irregularities-vertical irregularities, plan configuration problems. Safety consideration during additional construction and alteration of existing Buildings.
18.04.2022	01	Additional strengthening measures in masonry building-corner reinforcement, lintel band, sill band, plinth band, roof band, gable band etc.
<b>CHAPTER-4: RETROFITTING OF STRUCTURES</b>		
19.04.2022	02	Seismic retrofitting of reinforced concrete buildings Sources of weakness in RC frame building
22.04.2022	01	Classification of retrofitting techniques and their uses
25.04.2022	01	<b>CLASS TEST</b>
<b>CHAPTER-5: BUILDING SERVICES</b>		

26.04.2022	02	Cold Water Distribution in high rise building, lay out of installation Hot water supply – General principles for central plants-layout
29.04.2022	01	Sanitation –soil and waste water installation in high rise buildings
02.05.2022	01	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
06.05.2022	01	Lighting – Requirement of lighting, Measurement of light intensity
09.05.2022	01	Ventilation - Methods of ventilation (Natural and artificial Systems of ventilation) problems on ventilation
10.05.2022	02	Mechanical Services- Lifts, Escalator, Elevators – types and uses.
<b>CHAPTER-6: CONSTRUCTION AND EARTH MOVING EQUIPMENTS –</b>		
13.05.2022	01	Planning and selection of construction equipments
17.05.2022	02	Study on earth moving equipments like drag line, tractor, bulldozer, Power shovel
20.05.2022	1	Study and uses of compacting equipments like tamping rollers, Smooth wheel rollers, Pneumatic tired rollers and vibrating compactors
23.05.2022	1	
24.05.2022	02	Owning and operating cost – problems
27.05.2022	01	CLASS TEST
<b>CHAPTER-7: SOIL REINFORCING TECHNIQUES</b>		
31.05.2022	02	Necessity of soil reinforcing. Use wire mesh and geo-synthetics.
03.06.2022	01	Strengthening of embankments, Slope stabilization in cutting and embankments by soil reinforcing techniques.
06.06.2022	02	Revision
10.06.2022	01	MODEL TEST
<b>TOTAL</b>	<b>45</b>	

S. Mahaling  
08/03/22

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