

# LESSON PLAN

**Academic Session :- 2024-2025**

Subject: Building Material and Construction Technology(Th.3)

Semester from Date:02/09/2024 to 16/12/2024

Semester: 3rd

No. of weeks:14

Teaching faculty:C.M.Swarupa Nanda

5P/week

No. of Days/week class allotted:05 Period per week( Monday, Tuesday, Wednesday, Thursday, Saturday: 1p.each)

Total period:  
75

MONTH	Week	DATE	DAYS/PERIOD	Syllabus to be covered	NO. OF PERIODS AVAILABLE	
				<b>PART:A( BUILDING MATERIALS)</b>		
				<b>CHAPTER-STONE-5P</b>		
S E P T E M B E R	1st	02.09.2024	Monday	1.1 Classification of rock, uses of stones, natural bed of stones	1	
		03.09.2024	Tuesday	1.2 Quality of good building stones	1	
		04.09.2024	Wednesday	1.3 Dressing of stones	1	
		05.09.2024	Thursday	1.4 Characteristics of different types of stones	1	
		09.09.2024	Monday	1.5 Uses of different type of stones	1	
	2nd				<b>CHAPTER-2-BRICKS-6P</b>	
		10.09.2024	Tuesday	2.1. Brick earth- Its composition	1	
		11.09.2024	Wednesday	2.2.Brick making- preparation of brick earth	1	
		12.09.2024	Thursday	2.3.Moulding, Drying	1	
		14.09.2024	Saturday	2.4.Burning in kilns(continuous process)	1	
	3rd		17.09.2024	Tuesday	2.5.Classification of bricks	
			18.09.2024	Wednesday	2.6.size of traditional and modular bricks, quality of good building bricks	1
					<b>CHAPTER-3- CEMENT MORTAR AND CONCRETE-7P</b>	
		19.09.2024	Thursday	3.1. Cement: Type of cement, Properties, manufacturing of cement	1	
21.09.2024		Saturday	3.2.Importance and application of blended cement with fly ash and blast furnace slag	1		
4th		23.09.2024	Monday	3.3.Mortar: Defination and type of mortar	1	
		24.09.2024	Tuesday	3.4.Source and classification of sand, bulking of sand	1	
		25.09.2024	Wednesday	3.5.Use of gravel, morrum and fly ash as different building material	1	
		26.09.2024	Thursday	3.6. Concrete: Defination and composition, Water cement ratio-Workability,mechanical properties	1	
		28.09.2024	Saturday	3.7.grading of aggregates, mixing and placing, curing of concrete	1	
				<b>CHAPTER-4-OTHER CONSTRUCTION MATERIAL-7P</b>		

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5th	30.09.2024	Monday	4.1.Timber: Classification and Structure	1	
	1st	01.10.2024	Tuesday	4.2.Seasoning of timber- Importance	1
		3.10.2024	Thursday	4.3.Characteristics of good timber.	1
		5.10.2024	Saturday	4.4.Clay products and refractory materials- Definition and Classification	1
				4.5.Property and uses of refractory material- tiles , terracotta	1
	2nd	7.10.2024	Monday	4.6. Porcelain glazing; Iron and steel. Uses of cast iron, wrought iron, mild steel and tor steel	1
		8.10.2024	Tuesday		
	3rd	14.10.2024	Monday	4.6. Porcelain glazing; Iron and steel. Uses of cast iron, wrought iron, mild steel and tor steel	1
		<b>CHAPTER-5-SURFACE PROTECTIVE MATERIAL-5P</b>			
		15.10.2024	Tuesday	5.1.Composition of paint, enamels	1
17.10.2024		Thursday	5.2.Composition of varnishes	1	
19.10.2024		Saturday	5.3. Type and uses of surface protective material like paints, Enamels	1	
4th		21.10.2024	Monday	5.4.Varnishes, Distempers	1
	22.10.2024	Tuesday	5.5.Emulsion, french polish and Wax Polish	1	
	<b>PART:B(CONSTRUCTION TECHNOLOGY)</b>				
	<b>CHAPTER-1-INTRODUCTION-2P</b>				
	23.10.2024	Wednesday	1.1.Building and classification of buildings based on occupancy	1	
	24.10.2024	Thursday	1.2.Different components of a building, site investigation- objectives, site reconnaissance and exploration	1	
	<b>CHAPTER-2- FOUNDATION-4P</b>				
5th	26.10.2024	Saturday	2.1.Concept of foundation and its purpose	1	
	28.10.2024	Monday	2.2. Types of foundations- shallow and deep	1	
	29.10.2024	Tuesday	2.3.Shallow foundation-construction details of: Spread foundations for walls, thumb rule for depth and width of foundation and thickness of concrete block	1	
	30.10.2024	Wednesday	2.4.Deep foundations: Pile foundations- their suitability, classification of piles based on materials, function and method of installation	1	
	<b>CHAPTER-3-WALLS AND MASONRY WORKS- 6P</b>				

N O V E M B E R	1st	2.11.2024	Saturday	3.1.Purpose of walls, classification of walls-load bearing, non-load bearing walls, retaining walls.	1	
	2nd	4.11.2024	Monday	3.2. Classification of walls as per material of construction:	1	
		5.11.2024	Tuesday	3.3.Partition walls: Suitability and uses of brick and wooden partition walls	1	
		6.11.2024	Wednesday	3.4.Brick masonry: Definition of different terms, Bond-meaning and necessity: English bond for 1and 1-1/2 brick thick walls. T, X and right angled corner junctions, Thickness for 1and 1-1/2 brick square pillars in English bond	1	
		7.11.2024	Thursday	3.5.Stone masonry	1	
		9.11.2024	Saturday	3.6.Glossary of terms- string course, corbel, cornice, block-in-course, grouting, mouldings, templates, throating, through stones, parapet, coping, pilaster and buttress	1	
		<b>CHAPTER-4-DOORS, WINDOWS AND LINTELS-4P</b>				
	3rd	11.11.2024	Monday	4.1.Glossary of terms used in doors and windows	1	
		12.11.2024	Tuesday	4.2.Doors-different types of doors	1	
		13.11.2024	Wednesday	4.3. Windows-different types of windows	1	
		14.11.2024	Thursday	4.4.Purpose of use of arches and lintels	1	
		<b>CHAPTERS:5. FLOORS, ROOF AND STAIRS-5P</b>				
		16.11.2024	Saturday	5.1.Floors: Glossary of terms, type of floor finishes-cast-in-situ, concrete flooring(monolithic, bonded), terrazzo tile flooring, cast in situTerrazzo flooring,	1	
	4th	18.11.2024	Monday	5.2.Roofs: Glossary of terms, Types of roofs, concept and function of flat, pitched, hipped and sloped roofs	1	
		19.11.2024	Tuesday	5.3. Stairs: Glossary of terms; staircase, winder, Landing, stringer, newel, baluster, rise,tread, width of stair case, hand rail, nosing, head room, mumty	1	
		20.11.2024	Wednesday	5.4.Type of stair case- straight flight, dog legged, open well, quarter turn	1	
		21.11.2024	Thursday	5.5. Half turn( newel and geometrical stairs), bifurcated stair, spiral stair, cantilever stair, tread, riser stair.	1	
		<b>CHAPTER-6-Protective, Decorative Finishes, Damp and Termite proofing-5P</b>				

		23.11.2024	Saturday	6.1.Plastering- purpose- Types of plastering, Types of plaster finishes- Grit finish, rough cast, smooth cast, sand faced, pebble dash, acoustic plastering and plain plaster etc.	1
		25.11.2024	Monday	6.2.Proportion of mortars used for different plasters, preparation of mortars, techniques of plastering and curing	1
		26.11.2024	Tuesday	6.3. Pointing- purpose- Types of pointing, Painting-objective- methods of painting new and old wall surfaces, wood surface and metal surfaces- powder coating and spray painting on metal surfaces.	1
	5th	27.11.2024	Wednesday	6.4.White washing- Colour washing- Distempering- internal and external walls	1
		28.11.2024	Thursday	6.5. Damp and Termite proofing- Materials and Methods.	1
				<b>CHAPTER-7-Green Buildings, Energy Management and Energy Audit of Buildings and project- 4P</b>	
		30.11.2024	Saturday	8.1. Concept of green building, Introduction to Energy Management and Energy Audit of Buildings	1
D E C E M B E R	1st	2.12.2024	Monday	8.2. Aims of energy management of buildings.	1
		3.12.2024	Tuesday	8.3.Types of energy audit, Response energy audit questionnaire	1
		4.12.2024	Wednesday	8.4. Energy surveying and audit report	1