LESSON PLAN

Name of Faculty : Mrs. Sunita **scipline : Civil Engineerir** **L T**
Subject : Construction Material **Semester : 2nd** **2 - -**
Lesson plan Duration : Jan. 2026 - April 2026 (15 weeks)

Week	Lecture Day	THEORY TOPIC (including Assignments / Seeminar / Group Discussion / Sessional Tests)	Delivery Date of Lecture		Whether the Lesson Plan Followed ?
			Expected	Actual	Yes / No
1st	1st	**UNIT I - 1. Building Stones** 1.1 Sources of Stones 1.2 Quarrying of stones by blasting and its effect on environment 1.3 Dressing of stones			
	2nd	1.4 Requirements of good building stones 1.5 Various uses of stones in construction			
2nd	3rd	1.6 Artificial Stones: Procedure of making an artificial stone, forms of artificial stones, advantages of artificial stones.			
	4th	**UNIT I - 2. Bricks** 2.1 Introduction to bricks 2.2 Raw materials for brick manufacturing and properties of good brick making earth			
3rd	5th	2.3 Manufacturing of bricks 2.3.1 Preparation of clay (Manual and Mechanically) 2.3.2 Moulding: Hand moulding and machine moulding brick table; drying of bricks, 2.4 Burning of bricks: Bull's Trench Kiln, Hoffman's Kiln and Zig- Zag Kiln (only line diagram of kilns)			
	6th	2.5 Sun dried bricks, Traditional bricks, Refractory bricks, Fly ash bricks, Hollow bricks, 2.6 Size and weight of standard brick 2.7 Classification and specifications of bricks as per BIS: 1077 2.8 Stacking of bricks and tiles at site			
4th	7th	**UNIT II - 3. Tiles** 3.1 Brick tiles and their uses 3.2 Ceramic tiles and their uses 3.3 Vitrified tiles and their uses			
	8th	3.4 PVC Tiles and uses, 3.5 Paver blocks, interlocking tiles			
5th	9th	**Assignment – 1 / Group discussion / Technical Quiz / Seminar**			

5th	10th	**Sessional Test - 1**			
6th	11th	**UNIT II - 4. Cement** 4.1 Introduction, raw materials, flow diagram of manufacturing of cement			
	12th	4.2 Various types of cements, their uses and testing: Ordinary portland cement, rapid hardening cement, White cement, Portland pozzolana cement			
7th	13th	4.3 Properties of cement 4.4 Storage of Cement at site			
	14th	**UNIT III - 5. Timber and Wood Based Products** 5.1 Identification and uses of different types of timber: Teak, Deodar, Shisham, Sal, Mango, Kail, Chir, Fir, Hollock, Champ 5.2 Seasoning of timber: Purpose, methods of seasoning as per BIS Code 5.3 Properties of timber and specifications of structural timber			
8th	15th	5.4 Preservation of timber and methods of treatment as per BIS 5.5 Other wood based products, their brief description of manufacture and uses: Laminated Board, Block Board, Fibre Board, Hard board, Sunmica, Plywood, and Veneers			
	16th	**UNIT III - 6. Paints, Varnishes and Distempers** 6.1 Paints 6.1.1 Purpose and use of paints 6.1.2 Characteristics of an ideal paint 6.1.3 Types of paints: Oil paints, Water paints, Cement paints and Enamel paint 6.1.4 Covering capacity of paints			
9th	17th	6.2 Varnishes 6.2.1 Purpose and use of varnishes 6.2.2 Characteristics of an ideal varnish 6.2.3 Types of varnishes			
	18th	6.3 Distemper 6.3.1 Properties of distemper and process of distempering.			
10th	19th	**Assignment – 2/ Group discussion / Technical Quiz / Seminar**			

h	20th	**Sessional Test – 2**			
11th	21st	**UNIT IV - 7. Metals and Non Metals** 7.1 Ferrous metals: Composition, properties and uses of cast iron, mild steel, HYSD steel, high tension steel as per BIS. 7.2 Commercial forms of ferrous, metals.			
	22nd	7.3 Properties and use of Aluminium 7.4 Properties and use of Stainless Steel.			
12th	23rd	**UNIT IV - 8. Plastics** 8.1 FRP: Introduction, Properties of FRP and Applications of FRP in Building Industry			
	24th	8.2 PVC wall paneling 8.3 ACP and HPL Sheets			
13th	25th	**UNIT V - 9. Miscellaneous Materials** 9.1 Asbestos: Introduction, properties and use of asbestos. 9.2 Types and uses of insulating materials for sound and thermal insulation			
	26th	9.3 Construction chemicals like water proofing compound, epoxies, polymers 9.4 Water proofing and termite proofing materials – types and uses			
14th	27th	9.5 Materials used in interior decoration works like POP, methods of doing POP 9.6 Eco friendly materials for construction of buildings.			
	28th	Revision			
15th	29th	**Assignment – 3/ Group discussion / Technical Quiz / Seminar**			
	30th	**Sessional Test-3**			

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