

LESSON PLAN

Session	::	Winter-2022
Course Type	::	Theory
Semester/Branch	::	3rd Semester, Civil Engineering
Subject (with code)	::	Building Materials & Construction technology (Th.3)
Contact hours/week	::	5 hours
Name of Faculty	::	Suchismita padhi

S L. N O.	CLA SS ID	COURSE CONTENT	MODE OF DELIVERY	EXHIBIT/ REFERENCE
1	1.1	Classification of rock, uses of stone, natural bed of stone,	Lecture	Study material
2	1.2	Qualities of good building stone,	Lecture	Study material
3	1.3	Dressing of stone.Characteristics of different types of stone and their uses	Lecture	Study material
4	2.1	Brick making – Preparation of brick earth, Moulding, Drying, Burning in kilns	Video presentation	https://www.youtube.com/watch?v=61G1rX-v0H4
5	2.2	Classification of bricks, size of traditional and modular bricks	Field visit	Study material
6	3.1	Cement: Types of cements	Field visit	Study material
7	3.2	Properties of cements	Lecture	Study material
8	3.3	Manufacturing of cement	Video presentation	https://www.youtube.com/results?search_query=nptel+manufacturing+of+cement+video
9	3.4	Importance and application of blended cement with fly ash and blast furnace slag.	Lecture	Study material
10	4.1	Sources and classification of sand, Bulking of sand	Lecture	Study material
11	4.2	Use of gravel, morrum and fly ash as different building material	Lecture	Study material
12	5.1	Concrete: Definition and composition	Lecture	Study material
13	5.2	Water cement ratio- Workability, mechanical properties.	Lecture	Study material
14	6.1	Timber: Classification and Structure of timber	Lecture	Study material
15	6.2	Characteristics of good timber	Lecture	Study material
16	7.1	Clay products and refractory materials – Definition and Classification.	Lecture	Study material
17	7.2	tiles, terracotta, porcelain glazing	Video presentation	https://www.youtube.com/watch?v=2ZojSw6rem s

18	8.1	Iron and Steel	Lecture	Study material
19	8.2	Uses of cast iron, wrought iron, mild steel and tor steel	Lecture	Study material
20	9.1	Paints, Enamels, Varnishes.	Lecture	Study material
21	9.2	Distempers, Emulsion, French polish and Wax Polish	Lecture	Study material
22	1.1	Buildings and classification of buildings based on occupancy	Lecture	Study material
23	1.2	Different components of a building	Lecture	Study material
24	1.3	Site investigation – objectives.	Lecture	Study material
25	1.4	site reconnaissance and explorations	Lecture	Study material
26	2.1	Concept of foundation and its purpose	Lecture	Study material
27	2.2	Types of foundations – shallow and deep	Field visit	Study material
28	2.3	Shallow foundation-constructural details of : Spread foundations for walls.	Video presentation	https://www.youtube.com/watch?v=qeUMbBgKYGs
29	2.4	thumb rules for depth and width of foundation and thickness of concrete block	Lecture	Study material
30	2.5	Deep foundations: Pile foundations-their suitability.	Lecture	Study material
31	2.6	classification of piles based on materials,	Video presentation	https://www.youtube.com/watch?v=pbAMAjSee fs
32	2.7	function and method of installation	Lecture	Study material
33	2.8	Purpose of walls	Lecture	Study material
34	3.1	Classification of walls		Study material
35	3.2	load bearing, non-load bearing walls, retaining walls	Video presentation	https://www.youtube.com/watch?v=MkCZGJm9vu8
36	3.3	Classification of walls as per materials of construction.	Lecture	Study material
37	3.4	brick, stone, reinforced brick, reinforced concrete,	Lecture	Study material
38	3.5	precast, hollow and solid concrete block and composite masonry walls (Concept Only)	Lecture	Study material
39	3.6	Partition Walls : Suitability and uses of brick and wooden partition walls	Lecture	Study material
40	3.8	Bond – meaning and necessity: English bond for 1and 1-1/2 Brick thick walls.	Lecture	Study material
41	3.9	Stone Masonry	Lecture	Study material
42	3.10	Glossary of terms –String course, corbel, cornice, block-in-course, grouting	Lecture	Study material
43	4.1	Glossary of terms used in doors and windows	Lecture	Study material
44	4.2	Doors – different types of doors	Lecture	Study material
45	4.3	Windows – different types of windows	Video presentation	https://www.youtube.com/watch?v=NGH5iUUXRZU
46	5.1	Floors: Glossary of terms ,Types of floor finishes	Lecture	Study material
47	5.2	Roofs: Glossary of terms, Types of roofs, concept and function of flat, pitched, hipped and Sloped roofs	Video presentation	https://www.youtube.com/results?search_query=nptel+types+of+roofs+in+civil+engineering

48	5.3	Stairs: Glossary of terms	Lecture	Study material
49	5.4	Various types of stair case – straight flight, dog legged, open well, quarter turn, half turn (newel and geometrical stairs), bifurcated stair, spiral stair, cantilever stair, tread riser stair.	Video presentation	https://www.youtube.com/watch?v=i0JfvHedPJ8
50	6.1	Plastering – purpose – Types of plastering, Types of plaster finishes	Lecture	Study material
51	6.2	Proportion of mortars used for different plasters, preparation of mortars, techniques of plastering and curing.	Lecture	Study material
52	6.3	Pointing – purpose –Types of pointing	Lecture	Study material
53	6.4	Painting – objectives – method of painting new and old wall surfaces, wood surface and metal surfaces – powder coating and spray painting on metal surfaces.	Lecture	Study material
54	6.5	White washing – Colour washing – Distempering – internal and external walls.	Lecture	Study material
55	6.6	Damp and Termite proofing – Materials and Methods.	Lecture	Study material
56	7.1	Introduction to Energy Management and Energy Audit of Buildings	Lecture	Study material
57	7.2	Aims of energy management of buildings.	Lecture	Study material
58	7.3	Types of energy audit, Response energy audit questionnaire	Lecture	Study material
59	7.4	Energy surveying and audit report	Lecture	Study material

Signature of Concern Teacher