LESSON PLAN OF 3RD SEMESTER(2023-24) CIVIL ENGINEERING

Discipline :- CIVIL Engg.	Semester:-3RD	Name of the Teaching Faculty JAYALAXMI BEHERA
Subject:- BM&CT (CTh-3)	No of Days/per Week Class Allotted :-04	Semester From:- 01.08.2023 To:- 30.11.2023 No of Weeks:- 18

Week	Class Day	Theory/ Practical Topics
1st	1st	1.1 Classification of rock, uses of stone, natural bed of stone,
	2nd	1.2 Qualities of good building stone,
	3rd	1.3 Dressing of stone
	4th	1.4 Characteristics of different types of stone and their uses
2nd	1st	2.1 Brick earth – its composition
	2nd	2.2 Brick making – Preparation of brick earth, Moulding.
	3rd	Drying, Burning in kilns (continuous Process)
	4th	2.3 Classification of bricks, size of traditional and modular bricks, qualities of good building bricks
3rd	1st	3.1 Cement: Types of cements, Properties of cements, Manufacturing of cement
	2nd	3.2 Importance and application of blended cement with fly ash and blast furnace slag. 3.3 Mortar: Definition and types of mortar
	3rd	3.4 Sources and classification of sand, Bulking of sand
	4th	3.5 Use of gravel, morrum and fly ash as different building material
4th	1st	3.6 Concrete: Definition and composition- Water cement ratio- Workability, mechanical properties and grading of aggregates, mixing, placing, compacting and curing of concrete.
	2nd	4.1 Timber: Classification and Structure of timber.
	3rd	4.2 Seasoning of timber – Importance.
	4th	4.3 Characteristics of good timber.
5th	1st	Clay products and refractory materials – Definition and Classification.
	2nd	4.4 Properties and uses of refractory materials- tiles, terracotta, porcelain glazing.
	3rd	4.5 Iron and Steel: Uses of cast iron, wrought iron, mild steel and tor steel
	4th	5.1 Composition of Paints.
6th	1st	enamels, varnishes.
	2nd	5.2 Types and uses of surface protective materials like Paints, Enamels,
	3rd	Varnishes, Distempers, Emulsion, French polish and Wax Polish
	4th	1.1 Buildings and classification of buildings based on occupancy
7th	1st	1.2 Different components of a building.
	2nd	1.3 Site investigation – objectives, site reconnaissance and explorations.
	3rd	2.1 Concept of foundation and its purpose
	4th	2.2 Types of foundations – shallow and deep
8th	1st	2.3 Shallow foundation-constructional details of : Spread foundations for walls.
	2nd	thumb rules for depth and width of foundation and thickness of concrete block
	3rd	2.4 Deep foundations: Pile foundations-their suitability.
	4th	classification of piles based on materials, function and method of installation.
9th	1st	3.1 Purpose of walls
	2nd	3.2 Classification of walls – load bearing, non-load bearing walls, retaining walls

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	3rd	3.3 Classification of walls as per materials of construction: brick, stone, reinforced brick, reinforced concrete.
	4th	precast, hollow and solid concrete block and composite masonry walls (Concept Only).
10th	1st	3.4 Partition Walls : Suitability and uses of brick and wooden partition walls
	2nd	3.5 Brick masonry : Definition of different terms
	3rd	3.6 Bond – meaning and necessity: English bond for 1and 1-1/2 Brick thick walls. T, X and right angled corner junctions.
	4th	Thickness for 1and 1-1/2 brick square pillars in English bond
11th	1st	3.7 Stone Masonry :
	2nd	3.8 Glossary of terms –String course, corbel, cornice, block-in-course, grouting, mouldings,
	3rd	templates, throating, through stones, parapet, coping, pilaster and buttress
	4th	4.1 Glossary of terms used in doors and windows
12th	1st	4.2 Doors – different types of doors
	2nd	4.3 Windows – different types of windows
	3rd	4.4 Purpose of use of arches and lintels
	4th	5.1 Floors: Glossary of terms ,Types of floor finishes – cast-in-situ, concrete flooring(monolithic, bonded),
13th	1st	terrazzo tile flooring, cast in situ Terrazzo flooring, timber flooring (Concept only)
	2nd	5.2 Roofs: Glossary of terms, Types of roofs,
	3rd	concept and function of flat, pitched, hipped and Sloped roofs
	4th	5.3 Stairs: Glossary of terms; Stair case, winder, landing,
14th	1st	stringer, newel, baluster, rise, tread,
	2nd	width of stair case, hand rail, nosing
	3rd	head room, mumty room.
	4th	5.4 Various types of stair case – straight flight, dog legged, open well, quarter turn, half turn (newel and geometrical stairs),
15th	1st	bifurcated stair, spiral stair, cantilever stair, tread riser stair.
	2nd	6.1 Plastering – purpose – Types of plastering, Types of plaster finishes – Grit finish
	3rd	rough cast, smooth cast, sand faced, pebble dash, acoustic plastering and plain plaster etc.
	4th	6.2 Proportion of mortars used for different plasters, preparation of mortars, techniques
16th	1st	6.3 Pointing – purpose –Types of pointing
	2nd	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.
	3rd	6.5 White washing – Colour washing – Distempering – internal and external walls
	4th	6.6 Damp and Termite proofing – Materials and Methods.
17th	1st	7.1 Concept of green building
	2nd	7.2 Introduction to Energy Management and Energy Audit of Buildings.
	3rd	7.3 Aims of energy management of buildings.
	4th	7.4 Types of energy audit, Response energy audit questionnaire
18th	1st	7.5 Energy surveying and audit report.
	2nd	PREVIOUS YEAR QUESTION DISCUSSION
	3rd	PREVIOUS YEAR QUESTION DISCUSSION
	4th	REVISION