LESSON PLAN OF 3RD SEMESTER(2022-23) CIVIL ENGINEERING

Discipline :- CIVIL	Semester:-3RD	Name of the Teaching Faculty JAYALAXMI BEHERA
Subject:- BM&CT	No of Days/per Week Class Allotted :-04	Semester From:- **15/09/2022** To:- **22/12/2022** No of Weeks:- **15**

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, Drying, Burning in kilns (continuous Process)
	3rd	2.2 Brick making – Preparation of brick earth, Moulding, 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 3.5 Use of gravel, morrum and fly ash as different building material
	4th	.3.6 Concrete: Definition and composition- Water cement ratio- Workability, mechanical properties and grading of aggregates, mixing, placing, compacting and curing of concrete.
4th	1st	4.1 Timber: Classification and Structure of timber. 4.2 Seasoning of timber – Importance. 4.3 Characteristics of good timber.
	2nd	4.3 Clay products and refractory materials – Definition and Classification.
	3rd	4.4 Properties and uses of refractory materials- tiles, terracotta, porcelain glazing.
	4th	4.5 Iron and Steel: Uses of cast iron, wrought iron, mild steel and tor steel
5th	1st	5.1 Composition of Paints, enamels, varnishes.
	2nd	5.1 Composition of Paints, enamels, varnishes.
	3rd	5.2 Types and uses of surface protective materials like Paints, Enamels,
	4th	5.2 Varnishes, Distempers, Emulsion, French polish and Wax Polish
6th	1st	1.1 Buildings and classification of buildings based on occupancy
	2nd	1.1 Buildings and classification of buildings based on occupancy
	3rd	1.2 Different components of a building.
	4th	1.3 Site investigation – objectives, site reconnaissance and explorations.
7th	1st	2.1 Concept of foundation and its purpose
	2nd	2.2 Types of foundations – shallow and deep
	3rd	2.3 Shallow foundation-constructional details of : Spread foundations for walls, thumb rules for depth and width of foundation and thickness of concrete block

	4th	2.4 Deep foundations: Pile foundations-their suitability, classification of piles based on materials, function and method of installation.
8th	1st	3.1 Purpose of walls
	2nd	3.2 Classification of walls – load bearing, non-load bearing walls, retaining
	3rd	3.3 Classification of walls as per materials of construction: brick, stone, reinforced brick, reinforced concrete, precast, hollow and solid concrete block and composite masonry walls (Concept Only).
	4th	3.3 Classification of walls as per materials of construction: brick, stone, reinforced brick, reinforced concrete, precast, hollow and solid concrete block and composite masonry walls (Concept Only).
9th	1st	3.4 Partition Walls : Suitability and uses of brick and wooden partition walls 3.5 Brick masonry : Definition of different terms
	2nd	3.6 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
	3rd	3.7 Stone Masonry :
	4th	3.8 Glossary of terms –String course, corbel, cornice, block-in-course, grouting, mouldings, templates, throating, through stones, parapet, coping, pilaster and buttress
10th	1st	4.1 Glossary of terms used in doors and windows
	2nd	4.2 Doors – different types of doors
	3rd	4.3 Windows – different types of windows
	4th	4.4 Purpose of use of arches and lintels
11th	1st	5.1 Floors: Glossary of terms ,Types of floor finishes – cast-in-situ, concrete flooring(monolithic, bonded),
	2nd	5.1 Floors: terrazzo tile flooring, cast in situ Terrazzo flooring, timber flooring (Concept only)
	3rd	5.2 Roofs: Glossary of terms, Types of roofs,
	4th	5.2 Roofs: concept and function of flat, pitched, hipped and Sloped roofs
12th	1st	5.3 Stairs: Glossary of terms; Stair case, winder, landing,
	2nd	5.3 stringer, newel, baluster, rise, tread,
	3rd	5.3 Stairs: width of stair case, hand rail, nosing
	4th	5.3 Stairs: head room, mumty room.
13th	1st	5.4 Various types of stair case – straight flight, dog legged, open well, quarter turn, half turn (newel and geometrical stairs),
	2nd	**5.4** bifurcated stair, spiral stair, cantilever stair, tread riser stair.
	3rd	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.
	4th	6.2 Proportion of mortars used for different plasters, preparation of mortars, techniques
14th	1st	6.3 Pointing – purpose –Types of pointing 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.
	2nd	6.5 White washing – Colour washing – Distempering – internal 6.6 Damp and Termite proofing – Materials and Methods.
	3rd	8.1 Concept of green building 8.2 Introduction to Energy Management and Energy Audit of Buildings.
	4th	8.3 Aims of energy management of buildings. 8.4 Types of energy audit, Response energy audit questionnaire
15th	1st	8.5 Energy surveying and audit report.

	2nd	PREVIOUS YEAR QUESTION DISCUSSION
	3rd	PREVIOUS YEAR QUESTION DISCUSSION
	4th	REVISION