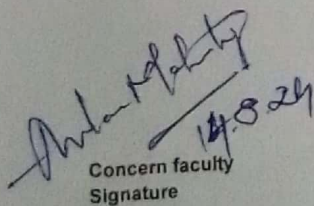


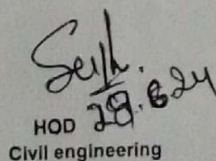
LESSON PLAN FOR WINTER SESSION (2024-25)

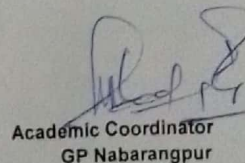
PROGRAMME : CIVIL ENGINEERING			NAME OF THE FACULTY: AMLAN MOHANTY
COURSE NAME : BUILDING MATERIALS AND CONSTRUCTIONS TECHNOLOGY			SESSION : 2024-25
COURSE CODE : TH.3			DATE : 01/07/24 To 08/11/25
SEMESTER : 3 RD			
PERIODS/WEEK: 5			
TOTAL PERIODS:75			
WEEK	PERIODS	UNITS	TOPICS
July 1st Week	1	1 of Part A	Part A - BUILDING MATERIAL 1. Stone 1.1 Classification of rock, uses of stone, natural bed of stone
	2	1 of Part A	1.2 Qualities of good building stone
	3	1 of Part A	1.3 Dressing of stone
	4	1 of Part A	1.4 Characteristics of different types of stone and their uses
	5	2 of Part A	2. Brick 2.1 Brick earth – its composition
July, 2nd Week	6	2 of Part A	2.2 Brick making – Preparation of brick earth, Moulding, Drying
	7	2 of Part A	Burning in kilns (continuous Process)
	8	2 of Part A	2.3 Classification of bricks
	9	2 of Part A	Size of traditional and modular bricks, qualities of good building bricks
	10	3 of Part A	3. Cement, Mortar and Concrete 3.1 Cement: Types of cements
July 3rd Week	11	3 of Part A	Properties of cements
	12	3 of Part A	Properties of cements
	13	3 of Part A	Manufacturing of cement
	14	3 of Part A	Manufacturing of cement
July 4th Week	15	3 of Part A	3.2 Importance and application of blended cement with fly ash and blast furnace slag
	16	3 of Part A	3.3 Mortar: Definition and types of mortar
	17	3 of Part A	3.4 Sources and classification of sand, Bulking of sand
	18	3 of Part A	3.5 Use of gravel, morrum and fly ash as different building material
	19	3 of Part A	3.5 Use of gravel, morrum and fly ash as different building material
August 1st Week	20	3 of Part A	3.6 Concrete: Definition and composition- Water cement ratio- Workability,
	21	3 of Part A	3.6 Concrete: Definition and composition- Water cement ratio- Workability,
	22	3 of Part A	Mechanical properties of Concrete.
	23	3 of Part A	Grading of aggregates, mixing, placing of Concrete
	24	3 of Part A	Compacting and curing of concrete
August, 2nd Week	25	4 of Part A	4. Other Construction Materials 4.1 Timber: Classification and Structure of timber
	26	4 of Part A	4.2 Seasoning of timber – Importance
	27	4 of Part A	Characteristics of good timber
	28	4 of Part A	4.3 Clay products and refractory materials – Definition and Classification.
	29	4 of Part A	4.4 Properties and uses of refractory materials- tiles, terracotta, porcelain glazing
August 3rd Week	30	5 of Part A	5. Surface Protective Materials 5.1 Composition of Paints, enamels, varnishes
	31	5 of Part A	5.2 Types and uses of surface protective materials like Paints, Enamels, Varnishes, Distempers, Emulsion, French
	32	1 of Part B	Part B - CONSTRUCTION TECHNOLOGY 1. Introduction 1.1
	33	1 of Part B	1.2 Different components of a building
	34	1 of Part B	1.3 Site investigation – objectives, site reconnaissance and explorations
August 4th Week	35	2 of Part B	2. Foundations 2.1 Concept of foundation and its purpose
	36	2 of Part B	Types of foundations – shallow and deep
	37	2 of Part B	2.3 Shallow foundation-constructional details of : Spread foundations for walls
	38	2 of Part B	Thumb rules for depth and width of foundation and thickness of concrete block
	39	2 of Part B	2.4 Deep foundations: Pile foundations-their suitability
Sept 1st Week	40		Classification of piles based on materials, function and method of installation
	41	3 of Part B	Internal Assessment Exam
	42	3 of Part B	3. Walls & Masonry Works
	43	3 of Part B	3.1 Purpose of walls
	44	3 of Part B	3.2 Classification of walls - load bearing, non-load bearing walls, retaining walls.

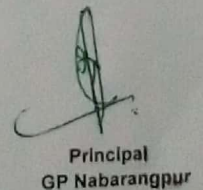
WEEK	PERIODS	UNITS	TOPICS
Sept 2nd Week	45	3 of Part B	3.5 Brick masonry : Definition of different terms
	46	3 of Part B	3.6 Bond – meaning and necessity: English bond for 1 and 1-1/2 Brick thick walls. T, X and right angled corner junctions. Thickness for 1 and 1-1/2 brick square pillars in English bond
	47	3 of Part B	3.7 Stone Masonry : 3.8 Glossary of terms –String course, corbel, cornice, block-in-course, grouting, mouldings, templates, throating, through stones, parapet, coping, pilaster and buttress 4.1
	48	4 of Part B	4. Doors, Windows And Lintels Glossary of terms used in doors and windows 4.2 Doors – different types of doors 4.3 Windows – different types of windows 4.4 Purpose of use of arches and lintels 5.1
	49	4 of Part B	
Sept 3rd Week	50	5 of Part B	5. Floors, Roofs and Stairs Floors: Glossary of terms, Types of floor finishes – cast-in-situ, concrete flooring(monolithic, bonded), terrazzo tile flooring, cast in situ Terrazzo flooring, timber flooring (Concept only) 5.1
	51	5 of Part B	5. Floors, Roofs and Stairs Floors: Glossary of terms, Types of floor finishes – cast-in-situ, concrete flooring(monolithic, bonded), terrazzo tile flooring, cast in situ Terrazzo flooring, timber flooring (Concept only) 5.1
	52	5 of Part B	5.2 Roofs: Glossary of terms, Types of roofs, concept and function of flat, pitched, hipped and Sloped roofs
	53	5 of Part B	5.3 Stairs: Glossary of terms; Stair case, winder, landing, stringer, newel, baluster, rise, tread, width of stair case, hand rail, nosing, head room, mummy room
	54	6 of Part B	5.3 Stairs: Glossary of terms; Stair case, winder, landing, stringer, newel, baluster, rise, tread, width of stair case, hand rail, nosing, head room, mummy room.
Sept 4th Week	55	6 of Part B	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 6.1
	56	6 of Part B	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 6.1
	57	6 of Part B	6. Protective, Decorative Finishes, Damp and Termite Proofing 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. 6.1
	58	6 of Part B	6. Protective, Decorative Finishes, Damp and Termite Proofing 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. 6.1
	59	6 of Part B	6.2 Proportion of mortars used for different plasters, preparation of mortars, techniques of plastering and curing.
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	61	6 of Part B	6.3 Pointing – purpose –Types of pointing
	62	6 of Part B	6.4 Painting – objectives – method of painting new and old wall surfaces, wood surface and metal surfaces – powder
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	64		
Oct 2nd Week	65		
	66		
	67		
Oct 3rd Week	68	6 of Part B	6.5 White washing – Colour washing – Distempering – internal and external walls.
	69	6 of Part B	6.5 White washing – Colour washing – Distempering – internal and external walls.
	70	6 of Part B	6.6 Damp and Termite proofing – Materials and Methods.
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Oct 4th Week	72		REVISION
	73	7 of Part B	7. Green Buildings, Energy Management and Energy Audit Of Buildings & Project
	74	7 of Part B	7.2 Introduction to Energy Management and Energy Audit of Buildings.
	75		CLASS TEST
	76		7.4 Types of energy audit, Response energy audit questionnaire
	77		7.4 Types of energy audit, Response energy audit questionnaire
	78		Doubt Clearing Class & Previous year question Paper discussion.
Nov 1st Week	79		Doubt Clearing Class & Previous year question Paper discussion.
	80		Doubt Clearing Class & Previous year question Paper discussion.
	81		Doubt Clearing Class & Previous year question Paper discussion.
	82		Doubt Clearing Class & Previous year question Paper discussion.

Puja Holidays


Concern faculty
Signature


HOD
Civil engineering


Academic Coordinator
GP Nabarangpur


Principal
GP Nabarangpur