



GANDHI SCHOOL OF ENGINEERING

BHABANDHA, BERHAMPUR

BRANCH- CIVIL ENGINEERING

SEMESTER- 3RD

SUBJECT- Th3. BUILDING MATERIAL & CONSTRUCTION TECHNOLOGY

NAME OF THE FACULTY- ER.MANJULA BHUYAN & ER. ROJALINI MISHRA

		Topic to be taken			Actual topic taken			
Sl. No	Topic/ Module	No. of period	Details of the topics	Date	Topic No.	Topic Name	Date	Remarks
Section – A: (BUILDING MATERIALS)								
1	Stone	5	1.1 Classification of rock, uses of stone, natural bed of stone, 1.2 Qualities of good building stone, 1.3 Dressing of stone 1.4 Characteristics of different types of stone and their uses	01.08.2023 - 07.08.2023	1.1 1.2 1.3 1.4	Classification of rock, uses of stone, natural bed of stone, Qualities of good building stone, Dressing of stone Characteristics of different types of stone and their uses	01.08.2023 02.08.2023 04.08.2023 05.08.2023 07.08.2023 08.08.2023	
2	Bricks	6	2.1 Brick earth – its composition 2.2 Brick making – Preparation of brick earth, Moulding, Drying, Burning in kilns (continuous Process) 2.3 Classification of bricks, size of traditional and modular bricks, qualities of good building bricks	08.08.2023 - 16.08.2023	2.1 2.2 2.3	Brick earth – its composition Brick making – Preparation of brick earth, Moulding, Drying, Burning in kilns (continuous Process) Classification of bricks, size of traditional and modular bricks, qualities of good building bricks	09.08.2023 11.08.2023 12.08.2023 16.08.2023 18.08.2023 19.08.2023 21.08.2023	

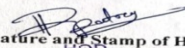
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1	Introduction	2	1.1 Buildings and classification of buildings based on occupancy 1.2 Different components of a building. 1.3 Site investigation – objectives, site reconnaissance and explorations.	18.09.2023 - 22.09.2023	1.1 Buildings and classification of buildings based on occupancy 1.2 Different components of a building. 1.3 Site investigation – objectives, site reconnaissance and explorations.	30.09.2023 03.10.2023	
2	Foundations	4	2.1 Concept of foundation and its purpose 2.2 Types of foundations – shallow and deep 2.3 Shallow foundation-constructional details of : Spread foundations for walls, thumb rules for depth and width of foundation and thickness of concrete block 2.4 Deep foundations: Pile foundations-their suitability, classification of piles based on materials, function and method of installation.	23.09.2023 - 27.09.2023	2.1 Concept of foundation and its purpose 2.2 Types of foundations – shallow and deep 2.3 Shallow foundation-constructional details of : Spread foundations for walls, thumb rules for depth and width of foundation and thickness of concrete block 2.4 Deep foundations: Pile foundations-their suitability, classification of piles based on materials, function and method of installation.	04.10.2023 06.10.2023 07.10.2023 09.10.2023	

3	Walls & Masonry Works	6	<p>3.1 Purpose of walls</p> <p>3.2 Classification of walls – load bearing, non-load bearing walls, retaining walls.</p> <p>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).</p> <p>3.4 Partition Walls : Suitability and uses of brick and wooden partition walls</p> <p>3.5 Brick masonry : Definition of different terms</p> <p>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</p> <p>3.7 Stone Masonry :</p> <p>3.8 Glossary of terms –String course, corbel, cornice, block-in-course, grouting, mouldings, templates, throating, through stones, parapet, coping, pilaster and buttress</p>	28.09.2023 - 06.10.2023	<p>3.1 Purpose of walls</p> <p>3.2 Classification of walls – load bearing, non-load bearing walls, retaining walls. 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).</p> <p>Partition Walls : Suitability and uses of brick and wooden partition walls</p> <p>Brick masonry : Definition of different terms</p> <p>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</p> <p>Stone Masonry :</p> <p>Glossary of terms –String course, corbel, cornice, block-in-course, grouting, mouldings, templates, throating, through stones, parapet, coping, pilaster and buttress</p>	<p>11.10.2023</p> <p>13.10.2023</p> <p>16.10.2023</p> <p>17.10.2023</p> <p>18.10.2023</p> <p>31.10.2023</p>	
4	Doors, Windows And Lintels	4	<p>4.1Glossary of terms used in doors and windows</p> <p>4.2 Doors – different types of doors</p> <p>4.3Windows – different types of windows</p> <p>4.4 Purpose of use of arches and lintels</p>	07.10.2023 - 11.10.2023	<p>4.1 Glossary of terms used in doors and windows</p> <p>Doors – different types of doors</p> <p>4.2 Windows – different types of windows</p> <p>4.3 Purpose of use of arches and lintels</p> <p>4.4</p>	<p>04.11.2023</p> <p>06.11.2023</p> <p>07.11.2023</p> <p>08.11.2023</p>	

5	Floors, Roofs and Stairs	5	<p>5.1 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)</p> <p>5.2 Roofs: Glossary of terms, Types of roofs, concept and function of flat, pitched, hipped and Sloped roofs</p> <p>5.3 Stairs: Glossary of terms; Stair case, winder, landing, stringer, newel, baluster, rise, tread, width of stair case, hand rail, nosing, head room, mumty room.</p> <p>5.4Various 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.</p>	13.10.2022 - 31.10.2022	<p>5.1 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)</p> <p>5.2 Roofs: Glossary of terms, Types of roofs, concept and function of flat, pitched, hipped and Sloped roofs</p> <p>5.3 Stairs: Glossary of terms; Stair case, winder, landing, stringer, newel, baluster, rise, tread, width of stair case, hand rail, nosing, head room, mumty room.</p> <p>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.</p>	<p>10.11.2023 11.11.2023</p> <p>15.11.2023 17.11.2023</p> <p>18.11.2023</p> <p>20.11.2023</p>	
6	Protective, Decorative Finishes, Damp and Termite Proofing	5	<p>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.</p> <p>6.2 Proportion of mortars used for different plasters, preparation of mortars, techniques of plastering and curing</p> <p>6.3 Pointing – purpose –Types of pointing</p> <p>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.</p> <p>6.5 White washing – Colour washing – Distempering – internal and external walls.</p> <p>6.6 Damp and Termite proofing – Materials and Methods.</p>	01.11.2023 - 07.11.2023	<p>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.</p> <p>6.2 Proportion of mortars used for different plasters, preparation of mortars, techniques of plastering and curing</p> <p>6.3 Pointing – purpose –Types of pointing</p> <p>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.</p> <p>6.5 White washing – Colour washing – Distempering – internal and external walls.</p> <p>6.6 Damp and Termite proofing – Materials and Methods.</p>	<p>21.11.2023</p> <p>24.11.2023</p> <p>25.11.2023</p> <p>28.11.2023</p>	

7	Green Buildings, Energy Management and Energy Audit Of	4	8.1 Concept of green building 8.2 Introduction to Energy Management and Energy Audit of Buildings. 8.3 Aims of energy management of buildings. 8.4 Types of energy audit, Response energy audit questionnaire 8.5 Energy surveying and audit report.	08.11.2023 - 15.11.2023	8.1 Concept of green building 8.2 Introduction to Energy Management and Energy Audit of Buildings. 8.3 Aims of energy management of buildings. 8.4 Types of energy audit, Response energy audit questionnaire 8.5 Energy surveying and audit report.	29.11.2023 01.12.2023 02.12.2023 04.12.2023 06.12.2023 09.12.2023	
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