

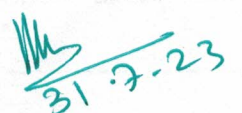
## LESSON PLAN FOR WINTER-2023

Discipline: <u>Civil</u>		Semester: <u>3rd</u>	Name of the faculty: <u>Er.Sashidhar Behera</u>
Subject: <u>Building Materials &amp; Construction Technology</u>		No of days/per week class allotted: <u>5 h</u>	Semester from date: <u>01.08.2023 to 30.11.2023</u> No. of Weeks : <u>14</u>
WEEK	DATE/CLASS DAY	PERIODS AVAILABLE	TOPIC TO BE COVER
<b>PART A : BUILDING MATERIALS-</b>			
1st week	01.08.2023	2	<u>Briefing about syllabus and Introduction about subject,its objective ,marks distribution,books name to be reffer etc.</u> <u>Chapter-1-Stone-</u> 1.1- Classification of rock, uses of stone, natural bed of stone.
	02.08.2023	1	1.2- Qualities of good building stone.
	03.08.2023	2	1.3- Dressing of stone. 1.4- Characteristics of different types of stone and their uses. <b>Discussing of possible QUESTIONS-</b>
2nd week	08.08.2023	2	<u>Chapter-2-Bricks-</u> 2.1- Brick earth – its composition 2.2- Brick making- preparation of brick earth,moulding, drying, burning in kilns( Continuous process )
	09.08.2023	1	2.3- Classification of bricks, size of traditional and modular bricks, qualities of good building bricks. <b>Discussing of possible QUESTIONS-</b>
	10.08.2023	2	<u>Chapter-3-Cement, Mortar and Concrete-</u> 3.1- Cement-Types of cement,properties of cement,manufacturing process of cement.
3rd week	16.08.2023	1	3.2- Importance and application of blended cement with fly ash and blast furnance slag. 3.3- Mortar-defination and types of mortar. 3.4- Sources and classification of sand,bulking of sand. 3.5- Uses of gravel,morrum and fly ash as different building material
	17.08.2023	2	3.6- Concrete- defination and composition,water cement ratio,workability,mechanical propertiesand grading of aggrgates,mixing,placing,compacting, <b>Discussing of possible QUESTIONS-</b>
4th week	22.08.2023	2	<u>Chapter-4-Other construction materials-</u> 4.1- Timber-Classification of and structure of timber. 4.2- Seasoning of timber-Importance.
	23.08.2023	1	4.3- Characteristics of good timber. 4.4- Clay products and refractory materials-defination and classification.
	24.08.2023	2	4.5- Properties and uses of refractory materials-tiles,terracotta, porcelain, glazing.
5th week	29.08.2023	2	<b>Monthly Class Test of August</b>
6th week	05.09.2023	2	4.6- Iron and steel- uses of cast iron,wrought iron,mild steel and tor steel. <b>Discussing of possible QUESTIONS-</b>
	07.09.2023	2	<u>Chapter-5- Surface protective materils-</u> 5.1- Composition of paints,enamels,varnishes. 5.2- Types and uses of surface protective materils - paints, enamels
	12.09.2023	2	Varnishes,Distempers,Emulsion.French polish and wax polish
	13.09.2023	1	<b>Fully Revision from 1st chapter to 5th chapter and qustion &amp; answer discussion for IA , Monthly Test,also in Semester pattern.</b>
<b>PART B : CONSTRUCTION TECHNOLOGY-</b>			
7th week	14.09.2023	2	<u>Chapter-1- Introduction-</u> 1.1-Building and classification of building based on occupancy. 1.2- Different component of building 1.3- Site investigation-objective,site reconnaissance and explorations. <b>Discussing of possible QUESTIONS-</b>
8th week	21.09.2023	2	<u>Chapter-2-Foundation-</u> 2.1- Concept of foundaton and its purpose. 2.2- Types of foundation-shallow and deep 2.3- Shallow foundation-construction details of spread foundation for walls,thumb rules for depth and width of foundation and thickness of concrete block. 2.4- Deep foundation-Pile foundation-their suitability,classification of piles based on materials,function and method of installation. <b>Discussing of possible QUESTIONS-</b>



9th week	26.09.2023	2	<b>Chapter-3-Walls &amp; Masonry Works-</b> 3.1- Purpose of walls. 3.2- Classifications of walls-load bearing,non-load bearing,retaining wall 3.3- classification of walls as per materials-brick,stone,reinforced brick,rcc,precast,hollow and solid concrete block,composite walls. 3.4- Partition walls-suitability and uses of brick and wooden partition walls.
	27.09.2023	1	3.5- Brick masonry-definition of different terms. 3.6- Bond- meaning and necessity,english bond for 1 and 1-1/2 brick wall.T.X and right angled corner junctions.1-1/2 brick square pillars english bond.
	28.09.2023	2	<b>Monthly Class Test of September</b>
10th week	03.10.2023	2	3.7- Stone masonry- Definitions. 3.8- Glossary of terms-string course,corbal,cornice,block in course,grouting,
	04.10.2023	1	moulding,templates,throating,through stones,parapet,coping,pilaster and buttress. <b>Discussing of possible QUESTIONS-</b>
	05.10.2023	2	<b>Chapter-4- Doors, windows and lintels-</b> 4.1- Glossary term used in doors and windows
11th week	10.10.2023	1	4.2- Different types of doors
	11.10.2023	1 hour/each theory	<b>INTERNAL ASSESSMENT-TH-01,TH-02,TH-03</b>
	12.10.2023	1 hour/each theory	
			<b>INTERNAL ASSESSMENT-TH-04,TH-05.</b>
12th week	17.10.2023	2	4.3- Windows- different types of windows
	18.10.2023	1	4.4- Purpose of use of arches and lintels. <b>Discussing of possible QUESTIONS-</b>
	19.10.2023	2	<b>Chapter-5-Floors, roofs and stairs-</b> 5.1- Floors-Glossary of terms,types of floor finishes-cast in situ,concrete flooring,terrazzo tile flooring,cast in situ terrazzo flooring,timber flooring.
13th week	01.11.2023	1	<b>Monthly Class Test of October</b>
	02.11.2023	2	5.2- Roofs-glossary of terms,types of roof,concept and function of flat, pitched, hipped, and sloped roof. 5.3- Stairs-glossary of terms,stair case,winder,landing,stringer,baluster, newel,rise,tread,width of stair case,hand rail,nosing,head room,mumty room.
14th week	07.11.2023	2	5.4- Various types of stair case- straight flight,dog legged,open well,quarter turn,half turn,bifurcated stair,spiral stair,cantilever stair,tread rise stair. <b>Discussing of possible QUESTIONS-</b>
	08.11.2023	1	<b>Chapter-6- Protective,decorative,damp and termite proofing-</b> 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 plastering etc.
	09.11.2023	2	6.2- Proportion of mortars used for differnt plasters,preparation of mortars, techniques of plastering and curing. 6.3- Pointing-purpose-types of pointing.
15th week	14.11.2023	2	6.4- Painting - objective-method of painting new and old surface,wood surface and metal surface- powder coating and spray painting on metal surfaces. 6.5- White washing-colour washing-distemping-external and ineternal walls.
	15.11.2023	1	6.6- Damp and termite proofing- materials and method. <b>Discussing of possible QUESTIONS-</b>
	16.11.2023	2	<b>Chapter-7-Green building,energy management,energy audit &amp; project-</b> 7.1- Concept of green building. 7.2- Introduction of energy management & energy audit of building.
16th week	21.11.2023	2	7.3- Aims of energy m,anagement of building. 7.4- Types of energy audit,response energy audit questionnaire.
	22.11.2023	1	7.5- Energy surveying and audit report. <b>Discussing of possible QUESTIONS-</b>
	23.11.2023	2	<b>Fully Revision from Part-B-1st chapter to 8th chapter and qustion &amp; answer discussion for mock test ,also in Semester pattern.</b>
17th week	28.11.2023	2	<b>FULL REVISION</b>
	29.11.2023	1	<b>FULL REVISION</b>
	30.11.2023	2	<b>Mock Test</b>

  
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