

LESSON PLAN					
Civil Engineering					
Subject : construction material					
Semester: 2nd		Theory-02	Practical-4		
WE EK	THEORY		WEEK		
	LECTURE DAY	TOPIC		Expt. No.	Experiment
1st	1st	Introduction of the subject	1	1	To identify the stones used in building works by visual examination
	2nd	Building Stone- Sources of stones, Quarrying of stones by blasting and its effect on environment and problem discussion			
2nd	1st	Dressing of stone, Requirements of good building stones, Various uses of stones in construction	2	2	To determine the crushing strength of bricks
	2nd	Artificial stone- Procedure of making an artificial stone, forms of artificial stones, Advantages of artificial stones			
3rd	1st	Bricks-Introduction to brick	3		
	2nd	Raw materials for brick manufacturing and properties of good brick making earth, Manufacturing of bricks, Preparation of clay (manual/mechanically)			
4th	1st	Moulding: hand moulding and machine moulding brick table; drying of bricks, burning of bricks, types of kilns (Bull's Trench Kiln and Hoffman's Kiln)	4	3	To determine the water absorption of bricks
	2nd	Sun dried brick, Traditional bricks, Refractory bricks, fly ash brick, hollow brick, Size and weight of standard brick, Classification and specifications of bricks as per BIS 1077			
5th	1st	Stacking of bricks and tiles at site, Tiles-bricks tiles & their uses, ceramic tiles and their uses, vitrified tiles, PVC tiles uses, Paver blocks, interlocking tiles	5		
	2nd	Sessional week			
6th	1st	Cement: Introduction, raw materials, flow diagram of manufacturing of cement, Various types of Cements, their uses and testing: Ordinary portland cement	6	4	To determine the efflorescence of bricks
	2nd	Properties of cement, Storage of cement site			
7th	1st	Timber and Wood Based Products: Identification and uses of different types of timber: Teak, Deodar, Shisham, Sal, Mango, Kail, Chir, Fir, Hollock,	7	5	To conduct a practical for dimensional tolerance of a brick
	2nd	Seasoning of timber: Purpose, methods of seasoning as per BIS Code, Properties of timber and specifications of structural timber, Preservation of timber and methods of treatment as per BIS, Other wood based products, their brief description of manufacture and uses laminated board, gypsum board,			

8th	1st	block board, fibre board,hard board, sunmica, plywood, veneers	8	6	to perform the following field test on cement to judge the quality of cement
	2nd	paints and Varnishes: Introduction, purpose and use of paints,types of paints & varnishes			
9th	1st	Covering capacity of various paints,characteristics of an ideal varnish,distemper,	9	7	date of packing ,colour, hand Inserting ,float test, smell test ,and presence of
	2nd	properties of distemper,process of distemper			
10th	1st	Sessional Week	10		Report work on pop and asbestos sheet,termites ,polymers and epoxies
	2nd				
11th	1st	Metals:Ferrous metals: Composition, properties and uses of cast iron, mild steel, HYSD steel, high tension steel as per BIS.	11	8	To identify various types of timbers such as: Teak, Sal, Chir, Shisham, Deodar, Kail & Hollock by visual examination only
	2nd	Commercial forms of ferrous, metals			
12th	1st	properties and uses of aluminium,Properties and uses of stainless Steel	12	9	the students should be submit a report work on the construction materials
	2nd	plastics- FRP Properties of applications of FRP in building industry,PVC wall Paneling, ACP & HPL Sheets			
13th	1st	Miscellaneous Materials: - Asbestos Introduction,Properties & Uses ,Types and uses of insulating materials for sound and thermal insulation	13	10	report work on covering Paints,varnishes, and distempers,aluminium and stainless steels
	2nd	Construction chemicals like water proofing compound, epoxies, polymers,Water proofing, termite proofing materials-Types & uses			
14th	1st	Materials used in interior decoration works like POP,Eco friendly materials for construction of buildings	14	5	report work on covering water proofing material ,pvc panels and
	2nd	Sessional			
15th	1st	Rivision			
	2nd	Rivision			