

FORMAT OF LESSON PLAN

Name of faculty Sachin Sharma  
Discipline Civil Engineering  
Semester 3rd  
Subject BC

Week	Theory		PRACTICAL	
	Lecture Day	Topic	TOPIC	
1st	1st	Introduction	1	Demonstration of tools and plants used in building construction
	2nd	Definition of a building, classification of buildings based on occupancy		
	3rd	Different parts of a building		
	4th	Concept of foundation and its purpose Types of foundation-shallow and deep		
	5th	Shallow foundation - constructional details of: Spread foundations for walls,		
2nd	1st	thumb rules for depth and width of foundation and thickness of concrete block,	2	To prepare Layout of a building: 2BHK with front verandah
	2nd	stepped foundation, masonry pillars and concrete columns		
	3rd	Layout/setting out for surface excavation, cutting and filling		
	4th	Excavation of foundation, trenches, shoring, timbering and dewatering		
	5th	Purpose of walls Classification of walls		
3rd	1st	load bearing, non-load bearing, dwarf wall, retaining, breast walls and partition walls	3	To construct brick bonds (English Bond) in One, One & half and Two brick thick: (a) Walls for L, T and Cross Junction (b) Columns
	2nd	Classification of walls as per materials of construction: brick, stone, reinforced brick,		
	3rd	reinforced concrete, precast, hollow and solid concrete block and composite masonry walls		
	4th	Partition walls: Constructional details, suitability and uses of brick and wooden partition walls		
	5th	Mortars: types, selection of mortar and its preparation		
4th	1st	Scaffolding, construction details and suitability of mason's brick layers and tubular scaffolding, shoring,	4	a)Walls for L,T and Cross Junctions (b) Columns
	2nd	Brick Masonry: Definition of terms like header, stretcher, queen closer king closer, frog and quoin		
	3rd	Bond - meaning and necessity; English, Flemish bond and other types of bonds		
	4th	Construction of brick walls -methods of laying bricks in walls, precautions observed in the construction of walls		
5th	1st	methods of bonding new brick work with old Expansion and contraction joints	5	Demonstration of "Timbering of Excavated Trenching" through a model and visit at construction site
	2nd	Importance towards special care during execution on: soaking of bricks, maintenance of bonds and plumb		
	3rd	definition of natural bed, bedding planes, string course, corbel, cornice, block in course grouting, moulding		
	4th	Types of stone masonry: rubble masonry - random and coursed; Ashlar masonry		
	5th	Importance towards special care during execution of stone masonry work on dressing of stone, size and placing of bond		
6th	1st	SESSIONAL TEST-1	6	Demonstration of "Laying Damp Proof Courses" through a model and visit at construction site
	2nd			
	3rd			
	4th			
7th	1st	Meaning and use of arches and lintels Glossary of terms used in arches and lintels	7	Demonstration of "Construction of Masonry Walls" through a model and visit at construction site
	2nd	Types of Arches - Semi circular, segmental, elliptical and parabolic, flat, inverted and relieving		
	3rd	Stone arches and their construction Brick arches and their construction		
	4th	Purpose of lintel Materials used for lintels Cast-in-situ and pre-cast lintels, Lintel along with sun-shade or chhajja		
8th	1st	Glossary of terms used in door and window	8	Demonstration of "Brick Layers Scaffolding" through a model and visit at construction site
	2nd	Classification based on materials i.e. wood, metal and plastic and their suitability for different situations.		
	3rd	Different type of doors- panel door, flush door, flazed door, rolling shutter, steel door, sliding door, plastic door		
	4th	Window - Panel window, glazed windows (fixed and openable) ventilators, sky light window, Louvres shutters		
9th	1st	Dampness and its ill effects on bricks, plaster, wooden fixtures, metal fixtures and reinforcement,	9	Demonstration of "Steel Scaffolding" through a model and visit at construction site
	2nd	damage to aesthetic appearance, damage to heat insulating materials, damage to stored articles and health,		
	3rd	Sources of dampness - moisture penetrating the building from outside e.g. rainwater, surface		
	4th	Damp proofing materials and their specifications: rich concrete and mortar, bitumen, bitumen mastic,		
10th	1st	Glossary of terms-floor finish, topping, under layer, base course, rubble filling and their purpose	10	Demonstration of "Laying of Vitrified Tile Flooring" through visit at construction site
	2nd	filling and their purpose 8.2 Types of floor finishes - cast-in-situ, concrete flooring, Terrazzo tile flooring, stone		
	3rd	The methods of construction of concrete, terrazzo and timber floors and their BIS specifications		
	4th	Glossary of terms for pitched roofs batten, eaves, fascia board, gable, hip, lap, purlin, rafter, rag bolt, valley ridge		
	5th	Damp proofing of : basement, ground floors, plinth and walls, special damp proofing arrangements in bathrooms		
11th	1st	SESSIONAL TEST- 2	11	Demonstration of "Plastering and Pointing Exercise" through visit at construction site
	2nd			
	3rd			
	4th			
	5th			
12th	1st	False ceilings using gypsum, plaster boards, cellotex, fibre boards Special emphasis on maintenance of slope	12	Demonstration of "Constructing RCC work - Foundations, Columns, Beams and Slabs" through visit at construction site
	2nd	Glossary of terms: Staircase, winders, landing, stringer, newel, baluster, riser, tread, width of staircase, hand-rail		
	3rd	Classification of staircase on the basis of material - RCC, timber, steel, Aluminium		
	4th	Planning and layout of staircase - straight flight, dog legged, open well, quarter turn, half turn		
	5th	Plastering - classification according to use and finishes like plain plaster, grit finish, rough cast, pebble dashed,		
13th	1st	proportion of mortars used for different plasters, techniques of plastering and curing	13	Demonstration of "Pre-construction and post construction termite treatment of building and woodwork" through visit at construction site
	2nd	Pointing - different types of pointing and their methods		
	3rd	Painting - preparation of surface, primer coat and application of paints on wooden, steel and plastered wall surfaces		
	4th	Application of white washing, colour washing and distempering, polishing, application of cement and plastic paints		
14th	1st	Revision/TEST	14	Demonstration of "False Ceiling" through visit at construction site
	2nd	Revision/TEST		
	3rd	Revision/TEST		
	4th	Revision/TEST		
15th	1st	SESSIONAL TEST-3	15	Demonstration of "Interlocking Tiles" through visit at construction site
	2nd			
	3rd			
	4th			