

GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN- 2026-27 (WINTER)

Discipline : CIVIL ENGG.		Semester: 3rd		Name of the Teaching Faculty : Anita Pradhan	
Subject : BC		No. of Days / per week class allotted : 03		Semester From date : 01.07.2026 To Date : 05.11.2026	
MONTH	Week	Day	Unit	Topics	
JULY	1st	4th	UNIT-I	Overview of Building Components	
		6th		Classification of Buildings as per National Building Code Group A to I, as per Types of Constructions- Load Bearing Structure, Framed Structure, Composite Structure	
		2nd		Building Components - Functions of Building Components, substructure -Foundation, Plinth	
	2nd	4th	UNIT-II	Superstructure - Walls, Partition wall, Cavity wall, Sill, Lintel, Doors and Windows Mezzanine floor, Roof, Columns, Beams, Parapet	
		2nd		Construction of Substructure	
		4th		Job Layout: Site Clearance, Layout for Load Bearing Structure and Framed Structure by Center Line and Face Line Method, Precautions	
	3rd	2nd		Earthwork: Excavation for Foundation, Timbering and Strutting, Earthwork for embankment, Material for plinth Filling, Tools and plants used for	
		4th		Foundation: Functions of foundation,	
		6th		Types of foundation - Shallow Foundation, Stepped Footing, Wall Footing, Column Footing,	
	4th	2nd		Isolated and Combined Column Footing, Raft Foundation,Grillage Foundation.	
		4th		Deep Foundation - Pile Foundation,	
		6th		Well foundation and Caissons, Pumping,	
AUGUST	1st	2nd	UNIT-III	Methods of Dewatering, Deep wells,	
		4th		Well points, Cofferdams (Introduction only).	
		6th		Construction of Superstructure	
	2nd	2nd		Introduction of structure	
		4th		Stone Masonry: Terms used in stone masonry- facing, backing, hearting, through stone, corner stone, cornice.	
		6th		Types of stone masonry: Rubble masonry, Ashlar Masonry and their types. Joints in stone masonry and their purpose	
	3rd	2nd		Selection of Stone Masonry, Precautions to be taken in Stone Masonry Construction.	
		4th		Brick masonry: Terms used in brick masonry- header, stretcher, closer, quoins, course, face, back, hearting, bat bond, joints, lap, frog line, level and plumb	
		6th		Bonds in brick masonry- header bond, stretcher bond, English bond and Flemish bond. Requirements of good brick masonry.	
	4th	2nd		Junctions in brick masonry and their purpose and procedure. Precautions to be observed in Brick Masonry Construction.	
		4th		Scaffolding and Shoring: Purpose, Types of Scaffolding, Process of Erection and Dismantling,	
		6th		Hollow concrete block masonry and composite masonry.	
	1st	2nd	QUESTION DISCUSSION	Purpose and Types of Shoring, Underpinning, Formwork: Definition of	
		4th		Requirements of Formwork, Materials used in Formwork, Types of	
		6th			
	2nd	2nd	1st Internal Assessment		
		4th			

SEPT 2024	2nd	4th	UNIT-IV	Building Communication and Ventilation
		2nd		Horizontal Communication: Doors -Components of Doors, Full Paneled Doors, Part ly Paneled and Glazed Doors
		4th		NUAKHAI
	3rd	6th		Flush Doors, Collapsible Doors, Rolling Shutters, Revolving Doors, Glazed Doors. Sizes of Door recommended by BIS.
				Windows: Component of windows, Types of Windows - Full Paneled, Partly Paneled and Glazed, wooden, Steel, Aluminum windows, Sliding Windows, Louvered Window, Bay win- dow, Corner window, clear storey window, Gable and Dormer window, Skylight. Sizes of Windows recommended by BIS.
OCTOBER			UNIT-V	Ventilators
	4th	2nd		Fixtures and fastenings for doors and windows
		4th		Material used and functions of Window Sill and Lintels, Shed/ Chajja.
	5th	2nd		Vertical Communication: Means of Vertical Communication- Stair Case,Ramps,Lift, Elevators and Escalators.
	1st	4th		Terms used in staircase steps, tread, riser, nosing, soffit, waist slab, baluster, balustrade, scotia, hand rails,newel post, landing, headroom, winder.
NOV		6th	UNIT-V	Types of staircase (On the basis of shape): Straight, dog-legged, open well,Spiral, quarter turn, bifurcated
	2nd	2nd		Three quarter turn and Half turn, (On the basis of Material): Stone, Brick,R.C.C., wooden and Metal
		4th		Building Finishes Floors and Roofs:
				Types of Floor Finishes and its suitability- Kota, Marble, Granite, Ceramic Tiles, Vitrified, Chequered Tiles, Paver Blocks, Concrete Floors, wooden Flooring, Skirting and Dado.
				Process of Laying and Construction, Finishing and Polishing of Floors,
NOV		2nd	UNIT-V	Roofing Materials- RCC, Mangalore Tiles, AC Sheets, G.I. sheets, Corrugated
	3rd	4th		Types of Roof: Flat roof, Pitched Roof- King Post truss, Queen Post Truss,terms used
		6th		Wall Finishes: Plastering - Necessity of Plastering, Procedure of Plastering
	4th	2nd		MAHASAPTAMI
		4th		Single Coat Plaster, Double Coat Plaster, Rough finish. Neeru Finishing and Plaster of Paris (POP).
NOV		2nd	UNIT-V	2nd Internal Assessment
	5th	4th		Special Plasters- Stucco plaster, sponge finish, pebble finish. Plaster Board and Wall Claddings.
				Painting - Necessity, Types of painting and procedure of Painting. Painting -Necessity, Surface Preparation for painting, Methods of Application.
	1st	2nd		Revision and Previous Year Question Discussion
		4th		Revision and Previous Year Question Discussion

SUBJECT EXPERT(CIVIL)

HOD(CIVIL)
G.P.MAYURBHANJ

ACADEMIC CO-ORDINATOR
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