

LESSON PLAN OF CEPC201,TH:1 Building Construction FOR THE SESSION 2025-26(WINTER-2025) BATCH-2024-27, GOVT. POLYTECHNIC,KANDHAMAL



Discipline: civil engineering	Semester: 3rd	Name of the Teaching Faculty: Gouranga Charan Pradhan, Sr. Lect. in Civil Engg.
Subject: CEPC201,TH:1 Building Construction	No. of days/ per week class allotted: 3	Semester From Date : 14/07/2025 to Date: 15/11/2025 No. of Weeks: 15
Week	Class Day	Theory/ Practical Topics (as per Blooms Taxonomy)
1st	1st	Unit-I Overview of Building Components Introduction to Building Classifications (Remembering, Understanding) Topic: Classification as per National Building Code (Group A to I)
	2nd	Types of Construction Structures (Understanding) Topic: Load Bearing, Framed, and Composite Structures
	3rd	Substructure Components (Remembering, Understanding) Topic: Foundation and Plinth – Functions and Types.
2nd	1st	Superstructure Components – Part 1 (Understanding, Applying) Topic: Walls, Partition Walls, Cavity Walls, Sills, Lintels
	2nd	Superstructure Components – Part 2 (Applying) Topic: Doors, Windows, Floors, Mezzanine Floors, Roofs, Columns, Beams, Parapets.
	3rd	Unit-II Construction of Substructure (Part 1) Job Layout and Site Clearance (Remembering, Understanding) Topic: Site Clearance, Layout Methods (Center Line, Face Line)
3rd	1st	Earthwork for Foundation (Understanding, Applying) Topic: Excavation, Timbering, Strutting.
	2nd	Earthwork for Embankment and Plinth Filling (Applying) Topic: Materials for Plinth Filling, Tools and Plants.
	3rd	Foundation Functions and Shallow Foundations (Understanding, Analyzing) Topic: Functions, Stepped Footing, Wall Footing
4th	1st	Shallow Foundations – Continued (Analyzing) Topic: Column Footing, Isolated and Combined Footing, Raft Foundation.
	2nd	Unit-II Construction of Substructure (Part 2) Deep Foundations – Pile Foundation (Understanding, Applying) Topic: Pile Foundation Types and Uses
	3rd	Deep Foundations – Well Foundation and Caissons (Understanding) Topic: Well Foundation, Caissons (Introduction).
5th	1st	Dewatering Methods (Applying, Analyzing) Topic: Pumping, Deep Wells, Well Points
	2nd	Cofferdams (Understanding) Topic: Introduction to Cofferdams
	3rd	Review and Practical Application (Applying, Evaluating) Topic: Substructure Construction Overview.
6th	1st	Unit-III Construction of Superstructure (Part 1) Stone Masonry – Terms and Types (Remembering, Understanding) Topic: Facing, Backing, Hearting, Through Stone, Corner Stone, Cornice.
	2nd	Stone Masonry – Construction and Precautions (Understanding, Applying) Topic: Rubble Masonry, Ashlar Masonry, Joints, Precautions.
	3rd	Brick Masonry – Terms and Bonds (Remembering, Understanding) Topic: Header, Stretcher, Closer, Quoins, Bonds (Header, Stretcher, English, Flemish).
7th	1st	Brick Masonry – Construction and Precautions (Applying, Analyzing) Topic: Requirements, Junctions, Precautions.
	2nd	Comparison and Tools (Analyzing) Topic: Stone vs. Brick Masonry, Tools for Masonry
	3rd	Unit-III Construction of Superstructure (Part 2) Hollow Concrete Block and Composite Masonry (Understanding, Applying) Topic: Hollow Concrete Block Masonry, Composite Masonry.
8th	1st	Scaffolding (Understanding, Applying) Topic: Purpose, Types, Erection, and Dismantling.
	2nd	Shoring and Underpinning (Understanding) Topic: Purpose, Types of Shoring, Underpinning.
	3rd	Formwork (Applying, Analyzing) Topic: Definition, Requirements, Materials, Types, Removal.
9th	1st	Review and Practical Application (Evaluating) Topic: Superstructure Construction Overview.

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	2nd	Unit-IV Building Communication and Ventilation (Part 1) Doors – Types and Components (Remembering, Understanding)Topic: Full Paneled, Partly Paneled, Glazed, Flush, Collapsible, Rolling Shutters.
	3rd	Doors – Construction and Fixtures (Applying)Topic: Door Components, Fixtures, and Fastenings.
10th	1st	Windows – Types and Components (Understanding)Topic: Full Paneled, Partly Paneled, Sliding, Louvered, Bay, Corner, Clear Storey.
	2nd	Windows – Materials and Functions (Applying, Analyzing)Topic: Window Sill, Lintels, Chajja, Materials.
	3rd	Ventilators and Review (Understanding, Applying)Topic: Ventilators, Review of Doors and Windows
11th	1st	Unit-IV Building Communication and Ventilation (Part 2) Vertical Communication – Staircases (Remembering, Understanding)Topic: Staircase Terms (Tread, Riser, Nosing, Baluster, etc.).
	2nd	Types of Staircases – Shape (Understanding, Applying)Topic: Straight, Dog-Legged, Open Well, Spiral, Quarter Turn.
	3rd	Types of Staircases – Material (Applying, Analyzing)Topic: Stone, Brick, R.C.C., Wooden, Metal Staircases.
12th	1st	Other Vertical Communication Systems (Understanding)Topic: Ramps, Lifts, Elevators, Escalators.
	2nd	Review and Practical Application (Evaluating)Topic: Vertical Communication Overview.
	3rd	Unit-V Building Finishes (Part 1) Floor Finishes – Types and Suitability (Remembering, Understanding)Topic: Kota, Marble, Granite, Ceramic, Vitrified, Chequered Tiles.
13th	1st	Floor Finishes – Construction and Polishing (Applying)Topic: Laying, Finishing, and Polishing of Floors.
	2nd	Roofing Materials (Understanding, Applying)Topic: RCC, Mangalore Tiles, AC Sheets, G.I. Sheets, Plastic/Fibre Sheets.
	3rd	Types of Roofs (Understanding, Analyzing)Topic: Flat Roof, Pitched Roof, King Post Truss, Queen Post Truss.
14th	1st	Review of Floors and Roofs (Evaluating)Topic: Floor and Roof Finishes Overview.
	2nd	Unit-V Building Finishes (Part 2) and Course Wrap-Up Wall Finishes – Plastering (Remembering, Understanding)Topic: Necessity, Single Coat, Double Coat, Neeru, POP.
	3rd	Special Plasters and Wall Claddings (Applying, Analyzing)Topic: Stucco, Sponge Finish, Pebble Finish, Plaster Board, Claddings.
15th	1st	Painting – Necessity and Procedure (Understanding, Applying)Topic: Surface Preparation, Methods of Application.
	2nd	Course Review and Synthesis (Evaluating, Creating)Topic: Overview of Units I–V.
	3rd	Final Project and Presentation (Creating)Topic: Design a Small Building Plan.

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