



R. K. Institute of Engineering and Technology
Approved by AICTE, New Delhi and Affiliated to SCTE&VT, Odisha

CIVIL ENGINEERING

SEMESTER : 3rd

FROM :01/07/2026 TO :05/11/2026

NAME OF THE FACULTY : Er. SAHIDA KHANUM

SUBJECT : Building Construction

TOTAL CLASS AVAILABLE IN SEMESTER: 45 nos

NO. OF PERIODS : 03/ WEEK

Class No.	Unit	Topic / Sub-topic	Teaching Method	Learning Outcome
1	I	Introduction to Building Construction, Classification of Buildings (NBC Group A-I)	Lecture	Understand building classification
2	I	Types of Construction: Load Bearing, Framed & Composite Structures	Lecture + PPT	Differentiate construction types
3	I	Building Components: Substructure (Foundation, Plinth)	Lecture	Identify substructure components
4	I	Superstructure Components: Walls, Floors, Roofs, Doors, Windows, Columns, Beams, Parapet	Lecture + Discussion	Explain functions of building components
5	II	Job Layout: Site Clearance & Layout Methods	Lecture + Demonstration	Understand site preparation
6	II	Center Line & Face Line Method, Precautions	Numerical + Practice	Perform building layout
7	II	Earthwork: Excavation, Timbering & Strutting	Lecture	Explain excavation methods
8	II	Earthwork for Embankment, Plinth Filling Materials	Lecture	Select suitable filling materials
9	II	Tools & Plants Used in Earthwork	Demonstration	Identify construction tools
10	II	Functions of Foundation	Lecture	Explain purpose of foundation
11	II	Shallow Foundations: Wall, Stepped & Column Footing	Lecture + Sketches	Classify shallow foundations
12	II	Isolated, Combined & Raft Foundations	Lecture	Compare foundation types
13	II	Deep Foundations: Pile, Well & Caisson Foundations	Lecture	Describe deep foundations



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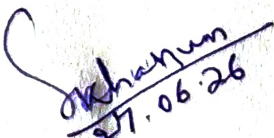
Class No.	Unit	Topic / Sub-topic	Teaching Method	Learning Outcome
14	II	Dewatering Methods: Deep Wells, Well Points, Cofferdams	Lecture	Explain dewatering techniques
15	II	Numerical/Revision & Unit Test	Practice	Reinforce Unit-II concepts
16	III	Stone Masonry: Terms & Types	Lecture + Specimens	Identify masonry terminology
17	III	Rubble & Ashlar Masonry	Lecture	Differentiate masonry types
18	III	Joints, Selection & Precautions in Stone Masonry	Lecture	Explain construction practices
19	III	Brick Masonry: Terms & Bonds	Lecture + Models	Identify brick bonds
20	III	English Bond & Flemish Bond	Demonstration	Construct bond patterns
21	III	Good Brick Masonry & Junctions	Lecture	Explain quality requirements
22	III	Stone vs Brick Masonry, Hollow Block & Composite Masonry	Discussion	Compare masonry systems
23	III	Tools & Plants for Masonry Work	Demonstration	Identify construction equipment
24	III	Scaffolding: Purpose, Types, Erection & Dismantling	Lecture	Understand scaffolding systems
25	III	Shoring, Underpinning & Formwork	Lecture	Explain temporary supports
26	III	Formwork Materials, Types & Removal	Lecture	Describe formwork requirements
27	III	Revision & Unit Test	Practice	Assess Unit-III
28	IV	Doors: Components, Types & BIS Sizes	Lecture + Samples	Identify door types
29	IV	Windows: Components, Types & BIS Sizes	Lecture + Models	Identify window types
30	IV	Ventilators, Fixtures & Fastenings	Demonstration	Explain door/window fittings
31	IV	Window Sill, Lintel & Chajja	Lecture	Understand structural elements
32	IV	Vertical Communication: Staircases, Ramps, Lifts & Escalators	Lecture	Explain vertical circulation
33	IV	Staircase Terminology	Lecture + Drawings	Define staircase terms

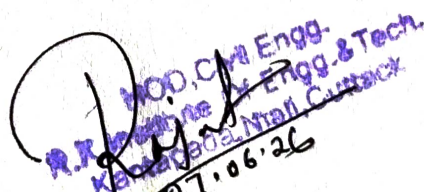


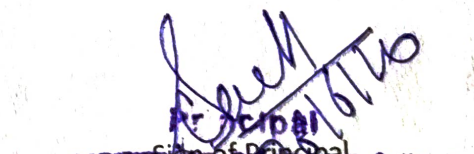
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Class No.	Unit	Topic / Sub-topic	Teaching Method	Learning Outcome
34	IV	Types of Staircases Based on Shape & Material	Lecture	Classify staircases
35	IV	Revision & Unit Test	Practice	Evaluate Unit-IV
36	V	Floor Finishes: Types & Suitability	Lecture + Samples	Select floor finishes
37	V	Construction & Finishing of Floors	Lecture	Explain flooring process
38	V	Roofing Materials & Types of Roofs	Lecture	Identify roofing systems
39	V	King Post & Queen Post Truss, Roof Terminology	Lecture + Sketches	Understand roof trusses
40	V	Plastering: Types, Procedure & Precautions	Lecture + Demonstration	Explain plastering process
41	V	Special Plasters, POP, Plaster Boards & Wall Cladding	Lecture	Describe finishing materials
42	V	Defects in Plastering	Discussion	Identify common defects
43	V	Painting: Necessity, Surface Preparation & Methods	Lecture + Demonstration	Explain painting process
44	V	Comprehensive Revision & Numerical/Objective Practice	Practice	Strengthen concepts
45	V	Final Revision, Doubt Clearing & Internal Assessment	Discussion/Test	Complete course assessment


27.06.26
Sign of Faculty


MOD, Civil Engg.
R.K. Institute of Engg. & Tech.
Kantapada, Niali Cutack
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Sign of HOD


27/6/26
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