

**COURSE CONTENTS FOR SUMMER TRAINING
FOR B.TECH. CIVIL ENGINEERING STUDENTS**

WEEK - 1

DAY-1

TOPIC
REGISTRATION OF PARTICIPANTS, INTRODUCTION OF PARTICIPANTS & COURSE INTRODUCTION OVERVIEW OF EXECUTION OF BUILDING PROJECT - INCEPTION TO HANDING OVER <ul style="list-style-type: none"> ◇ Planning & Estimation after requisition ◇ Pre-tendering process after obtaining Administrative approval & Expenditure Sanction ◇ Tendering Process & Award of Work ◇ Execution & Completion

DAY - 2

TOPIC
ESTIMATION & QUANTITY SURVEYING <ul style="list-style-type: none"> ◇ Quantity Survey ◇ Estimation ◇ Hands on Session

DAY - 3

TOPIC
STRUCTURAL DESIGN OF BUILDINGS - DESIGN PARAMETERS & CODAL PROVISIONS <ul style="list-style-type: none"> ◇ Assessment of Loads - Vertical and Horizontal ◇ Design of Beams & Slabs ◇ Design of Columns ◇ Design of Isolated & Combined Footings

WEEK - 2

DAY - 1

TOPIC
OVERVIEW OF COMPUTER AIDED STRUCTURAL DESIGN THROUGH STAAD PRO <ul style="list-style-type: none"> ◇ Introduction to Computer Aided Structural Design of Buildings ◇ Features of STAAD Pro Software ◇ Typical Command sequence of STAAD Pro & Brief demonstration

DAY - 2

TOPIC
CPWD BUILDING SPECIFICATIONS <ul style="list-style-type: none"> ◇ Overview of CPWD Specification - I ◇ Overview of CPWD Specification - II

DAY - 3

TOPIC
MANDATORY TESTS AS PER CPWD BUILDING SPECIFICATIONS <ul style="list-style-type: none"> ◇ Necessity of Testing & Frequency ◇ Testing Results and Acceptance Criteria

WEEK - 3

DAY - 1

TOPIC
BUILDING SERVICES - EXTERNAL/INTERNAL WATER SUPPLY PLANN Introduction to Computer Aided Structural Design of Buildings
◇ Quality of water ◇ Demand Calculation of Water ◇ Design of External W/S System ◇ Design of Internal W/S System
DAY - 2

TOPIC
BUILDING SERVICES- EXTERNAL/INTERNAL SANITARY INSTALLATION
◇ Design & Execution of Sanitary Installation ◇ Planning & Design of Kitchen, Bathroom & Other facilities of Building

DAY - 3

TOPIC
QUALITY CONTROL & EFFECTIVE INSPECTION OF BUILDING WORKS
◇ Quality Control & Effective Inspection of Building Works

WEEK - 4

DAY - 1

TOPIC
BUILDING MAINTENANCE
◇ Common Problems in Maintenance & Remedial Measures ◇ Precaution in Planning & Construction of Buildings for Minimal Maintenance

DAY - 2

TOPIC
WATER CONSERVATION & RAIN WATER HARVESTING
◇ An overview ◇ Planning, Design & Execution of Rain Water Harvesting Systems

DAY - 3

TOPIC
EXPANSIVE SOIL - PROBLEM & REMEDIAL MEASURES
◇ Description & Properties of Expansive Soil ◇ Problems faced in Expansive Soils and Remedial Measures ◇ Under reamed Piles