



Civil Engineering Department

Government Engineering College, Dahod-389151.

Mid Sem Syllabus – April 2024

Subject: Basic Civil Engineering (Even 2023-24)

Subject Code: 3110004

Semester: 1st year

Branch: Civil & Mechanical

Faculties: 1. Prof D. K. Oza (DKO) (1 Lecture/week)

2. Prof C. S. Modhiya (CSM) (1 Lecture/week)

3. Dr. S. M. Damodariya (SMD) (1 Lectures/week)

Date: 21-03-2024

MID SEM SYLLABUS

Sr. No.	MODULE NAME	Topic Covered	CO's
1.	INTRODUCTION TO CIVIL ENGINEERING AND CIVIL ENGINEERING MATERIALS	Introduction, Branches, Scope, Impact, Role of Civil Engineer, Units of measurement, Unit conversion (Length, Area, Volume). Details (types, properties, uses) of materials: Cement, Aggregate, Brick, Steel, Concrete, Stone, Soil, Mortar, Timber, Plastic, Epoxy, Flyash, Steel slag, Copper slag, Bitumen, Optical fiber, Pipe, Wire, Cable, Smart material, Basic hand fill tests, FRP Road traffic, traffic control, traffic signals & Intersections.	CO1
2.	BUILDING CONSTRUCTION AND BUILDING SERVICES	Building Construction: Types of building, Components of building & its functions, types of loads acting on building, Types of brick bonds, Typical building layout, Symbols used in electrical layout, Symbols used for water supply, plumbing and sanitation. Nominal dimensions for door, window and furniture.	CO3
3.	INTRODUCTION TO SURVEYING AND LEVELLING	Introduction, Fundamental principles, Classification. Linear measurement: Instruments used, chaining on plane ground, Offset, Ranging. Angular measurement: Compass-Instrument used Meridian, Bearing, and Local attraction. Leveling: Instrument used, Terminology, Types of leveling, and Methods of leveling, Introduction to contour Modern tools: Introduction to Theodolite, Total Station	CO4

BCE -3110004 – COURSE OUTCOMES

CO-1 Describe the use of different materials in Civil Engineering

CO-2 Interpret various aspect of the building and town planning

CO-3 Identify the various building components, method of constructions, and services

CO-4 Use different equipment for angular and linear measurements

CO-5 Describe various public transportation system, water conservation methods, water -waste water quality and advances in civil engineering

Prof D. K. Oza
Prof C. S. Modhiya
Dr. S. M. Damodariya
Subject Faculties

Head,
Civil Engineering Programme