

## **1010 - CIVIL DEPARTMENT SYLLABUS**

### **III – SEM**

#### **11031 – ENGINEERING MECHANICS**

- Analyse, determinate beam and sketch S.F and B.M diagram
- Derive simple bending equation
- Definition of properties of Materials.

#### **11032 – CONSTRUCTION MATERIALS AND PRACTICE**

- Different types of foundation
- Different types of Building materials
- Describe the types of floor

#### **11033 – SURVEYING**

- Computation of areas
- Different types of curves and elements of simple circular curve.
- Features of total station
- Fundamental and Components of g /s

#### **11034 – CIVIL ENGG DRAWING – 1**

- Prepare layout of buildings
- Knowledge of the rules and regulations of standards of buildings
- Sections and elevation of Building

#### **11035 – MATERIAL TESTING LAB – 1**

- Study of UTM Torsion, Hardness Competition testing machine
- Material properties best on steel, wood, cement, bricks

#### **11036 – SURVEY LAB -1**

- Study of Dump level, Theologize, Compare Total Station.

## **IV – SEM**

### **11041 – THEORY OF STRUCTURES**

- Beam slope and Deflection
- Analysis of Beam.
- Stability of masonry dam. Retain walls.
- Load formation of columns

### **11042 – ENVIRONMENTAL ENGG.**

- Quality of water specifying B/S Standard.
- Primary and secondary treatment of sewage
- Air pollutions and water pollutions, land pollutions

### **11043 – TRANSPORTATION ENGINEERING**

- Road arboriculture and road Machining
- Low cost, WBM Bitumen concrete and Hill roads
- Materials used in Railways.

### **11044 – MATERIAL TESTING LAB – II**

- Properties of fine aggregate and coarse aggregate
- Properties of soil
- Analysis and properties of water

### **11045 – CAD IN CIVIL ENGINEERING DRAWING – I**

- Auto Cad software package for drawing
- Practice on Drawing simple Drawing
- Practice on Drawing Residential School Hostel Buildings

### **11046 – SURVEY PRACTICE – II**

- Component part of Theodolite
- Elevation of an object using Tachometer
- Component part of total station

## **V SEM**

### **11051 – STRUCTURAL ENGINEERING**

- Design a Simple Building
- Beam Column Clamp Design and Analyon
- IS 456 – 2000 , IS 800

### **11052 – QUANTITY SURVEYING**

- Estimate in Group and Trade system
- Specification and report of various work
- Prepare detailed estimate the various work

### **11071 – CONCRETE TECHNOLOGY & ADVANCED CONSTRUCTIONS**

- Concrete preparation and strength of concrete
- Earth quake and design concept
- Methods of pile foundation

### **11055 – CONSTRUCTION LAB**

- Prepare centre line plan and foundation plan for a building
- Workability of concrete
- Slum cone test
- Centering area for roof Calculation

### **11054 – CAD IN CIVIL ENGG DRAWING – II**

- Practice on Public health structure
- Ridge structure
- Standards specification in IS 456

## **VI – SEM**

### **11061 – CONSTRUCTION MANAGEMENT WITH MIS**

- Organization setup of PWD
- Feasibility study of a project
- Significance of CPM and PERT Network

### **11062 – HYDRAULICS**

- Properties of fluids and its physical quantities
- Losses of flowing liquid pumps
- Reciprocating pump and centrifugal pump

### **11082 – WATER RESOURCES MANAGEMENT**

- Components of the hydrological cycle
- River Baring Management
- Distribution system of canals

### **11064 – HYDRAULICS & PLUMBING LAB**

- Friction factor for GI and PUC pipe
- Bath room connection suction and delivery pipe
- Reciprocating pump
- Centrifugal pump

### **11065 – COMPUTER APPLICATION IN CIVIL ENGG**

- M.S Excel
- M.S. Project
- Stadd. Pro

### **11066 – PROJECT WORK**

- Varies concept of Civil Engineering
- Suitable civil Engineering Project and Prepare the report.