

## **SUBJECT NAME – CONSTRUCTION TECHNOLOGY III**

**SUBJECT CODE – 3336202**

### **FOCUS:**

To acquaint the students with construction practices pertaining to RCC & steel elements, construction practices pertaining to RCC floors, roofs and flooring with different materials and plastering. To introduce students to electrical services and illumination and to sensitize them with respect to their integration into Architectural Design.

### **CONTENTS:**

- Study of steel foundations and columns, types of foundations – isolated, combined, Raft, Base slab, Grillage, pile foundations.
- Study of principles and methods of construction of RCC, one way, two way slabs – cantilever slabs, sloping RCC roof, retaining walls, vaults, domes.
- Hollow clay blocks roofing techniques (filler slab)
- Shoring & underpinning, form-work techniques and reinforcement details for RCC Construction.
- Expansion joints – Necessity, location and detailing
  
- Insulation materials – Thermal and sound insulation materials: mineral wool, unbounded rock and slag wool, polyurethane forms (PUF) etc.,
- Introduction to the study of acoustics – nature of sound. Understanding of basic terminology like – frequency, pitch tone, sound pressure, sound intensity, loudness, threshold of audibility and pain, masking, sound distance.
- Behavior of sound in enclosed spaces – reflection of sound, nature of reflection from plane, convex and concave surfaces, sound diffraction, absorption of sound, sound absorption coefficient, reverberation, sound absorbents, porous materials, panel or membrane absorbers and cavity or Humboldt resonators, role of functional absorbers.

### **SUGGESTED BOOKS**

- Construction Technology by Chudley
- Construction of Buildings by Barry
- Building construction by Frank Ching
- Building construction by McKay