OBJECTIVES:

- The purpose of this course is to impart knowledge about planning of buildings and construction of foundations, roof, floors, brick and stone masonry
- To impart knowledge on doors, windows, staircases, RCC work, water proofing and damp proofing works

Unit I: Site Planning
Precautions in selection of sites – the situations and surroundings of site for various types of building – elements of building planning, requirements, orientation, ventilation and lighting, concept of green buildings


Unit II: Brick and Stone Masonry
Types of bond in brickwork and their suitability – General principles and precautions in brick masonry – factors affecting thickness of walls - construction of brick masonry – methods of bonding new brick work with old brick work - Comparison of brick and stone masonry - Strength of Brick Masonry – Classifications as per IS code – Classification of Stone masonry – General principles and precautions in stone masonry – specification and construction of stone masonry – composite masonry – lifting appliances – Concrete Hollow block masonry

Unit-III: Roofs and Floors

Unit IV: Doors, Windows and Staircases
Different types of doors and windows and their suitability, Timber, steel, Aluminium and synthetic. Stair and staircases: Concepts – requirements of a good stair – principles to be observed for planning and layout of stairs – classification of stairs according to their layout and materials of construction
**Water Proofing and Damp Proofing**

Techniques of plastering – types of rendering – types of pointing and their suitability – Application of paints for new and old work of timber, steel and plaster – preparation and application of white washing and distempering – weathering course.

Damp proofing – causes of dampness – Ill effects – Methods of preventing dampness – Types and classification of damp proofing materials – Requirements of an ideal material for damp proofing – Methods of providing DPC under different situations.

**Unit V: R.C.C. Work**

Methods of Construction of R.C.C. slabs, Beams & Columns

**Miscellaneous Construction Features**

Construction sequences: Construction sequence and procedure for RC framed structures with masonry panel walls, load bearing wall structures, industrial shed type building.

**Expansion joints:** Types and provision of expansion joints for foundations, floors, walls, roofs, beams and slabs. Shoring, Scaffolding and Underpinning: Methods, uses and suitability of different types and precautions for safety – Selection of equipment for earth work, concreting, material handling and erection of Structures

**Text Book:**


**Reference Books:**

2. Relevant IS Codes and National Building Code of India.