

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma in Architectural Assistantship

Semester: 4

Subject Name BUILDING CONSTRUCTION - II

Sr. No.	Course content
1.	GROUND FLOORS 1.1 Definition 1.2 State the functions of ground floor, factors affecting the choice & type of ground floors. 1.3 State and explain the factors affecting the selection of flooring for ground floor. --Initial cost, Appearance, Durability, Cleanliness, Smoothness, Sound insulation etc. 1.4 Draw and explain various ground floors and floor finishes:--- Bricks Terrazzo Stones Wooden Mosaic tiles Plastic or P.V.C. Glazed tile. 1.5 Suggest the type of flooring for the given situation like godown, library, multi-purpose hall, theatre stage, in residence like drawing room, kitchen, batch etc.
2.	UPPER FLOORS 2.1 Introduction to Upper floor 2.1.1 Wooden double floor 2.1.2 Jack arch concrete flooring 2.2 R.C.C. Floors •Two Way slab •R.C.C. beam & slab •Ribbed floor •Flat slab floor •Pre-cast concrete floor •Hy-rib floors (expanded Metal Rib Mesh floor)
3.	ADVANCE TECHNIQUES FOR D.P.C. & ANTI TERMITE TREATMENT: 3.1 Sources (or causes) of dampness 3.2 Effects of dampness 3.3 Advanced techniques & methods of damp prevention 3.4 Materials used for D.P.C. 3.5 Advance D.P.C. treatment in building 3.6 Advance techniques for anti-termite treatment
4.	SLOPING ROOFS: 4.1 Introduction to technical terms related to roof 4.2 Introduction to various types of sloping roofs 4.3 Composite roof trusses 4.4 Steel sloping roof trusses & their details 4.5 Advantages of steel truss over timber sloping roof

5.	TEMPORARY SUPPORTS 5.1 Definition 5.2 Types of temporary supports - Shoring, scaffolding, underpinning & form work. 5.3 Types of shoring, scaffolding, underpinning 5.4 Definition of formwork, Requirements of form work, materials for form work. 5.5 Form work for wall footing, column footing, beam & slab, form work for stair. 5.6 Removal of form work.
6.	STAIR CASE 6.1 Definition of various terms related to Stair-case 6.2 Types of Stairs 6.3 Various materials used for stairs 6.4 Suitable location of stair/stair case for given building 6.5 Design of stair & stair case
7.	R.C.C. CONSTRUCTION: 7.1 Definition 7.2 Properties of reinforced concrete 7.3 Advantages of R.C.C. 7.4 Causes of failure of R.C.C. structures 7.5 Construction of R.C.C. columns, R.C.C. beam & slab & R.C.C. framed building.

Reference Books:

Sr. No.	Name of Books	Author
1.	Building Construction	Sushil kumar
2.	Building Construction Vol 1,2,3,4.	W.B.Mckay
3.	Elementary Building Construction	Mitchell
4.	Building Construction	S.P. Arora & S.B.Bindra
5.	Building Construction	Medlycol
6.	Building Construction	Rangwala