4524 - BUILDING CONSTRUCTION – III

Teaching Schedule Per Week			Progressive Assessment		Examination Schedule (Marks)			
Lectures	Practical	Credit			Theory		Practical Ex.	Total
2	4	6	25	25	3 Hrs	100	50	200

Pre-requisite	Source
2060 & 4521	ARC

Semester	Theory	Test	Total	TW	PR	Gr Total
	75	25	100	50	–	150

RATIONALE: In this curriculum the student will be studying all the detailing in various building components involved in a case study of a single volume simple structure.

COURSE CONTENTS Hrs Mks

NOTE

The detailing of the various building components mentioned in the following chapters will be based on a single volume, simple structure like a garage, storage-shed etc.

1. FOUNDATIONS

Detailing of R.C.C. isolated and eccentric footing of various shapes.

2. WALLS INTRODUCTION OF 12 12

R.C.C columns and beams, General requirements, Various shapes and designs. 3 4
Detailing of the above.

3. OPENINGS Terminology, Types of openings a) door b) windows. Location and size of openings. Detailing of door and window-frames and its fixing to the wall and columns Detailing of simple doors and windows, in wood, Steel and glass using any one and combination of materials. Finer detailing rebates, moulding and other joinery. Choice of materials for the shutter Fixtures and fastenings	24	20
4. FLOORS Detailing of fixing and laying of different types of flooring materials like mud, bricks, IPS, stone, terracotta, ceramic, cement tiles, timber, linoleum, Choice of flooring materials for different uses	16	16
5. ROOFS Terminology, Types – sloping and flat roofs, Classification based on material specifications of timber roof, R.C.C. roof, and steel roof, Detailing of Timber roof R.C.C. roof – sloping and flat,. Steel roof – for various spans, Joining details of all components,. Different types of roofing materials, Their specifications and fixing details, Choice of roof type and truss type for various spans	26	32
6. ADVANCED ROOFING Introduction to advanced roof types in R.C.C. & Steel for large span structures, e.g. Waffle slab, shell structures, and tension structures, folded plates, domes in R.C.C. & Steel.	6	8
Total	32	100

PRACTICALS:

1. 1 sheet full imperial on topic under Sr. No. 1
2. 1 sheet full imperial on topic under Sr. No. 2
3. sheet full imperial on topic under Sr. No. 3
4. sheet full imperial on topic under Sr. No. 4
5. sheet full imperial on topic under Sr. No. 5
6. Small portfolio of ¼ imperial on topic under Sr. No. 6

REFERENCE BOOKS:

1. Building construction B. C. Punmia.
2. Building construction Bindra & Arora .
3. Building construction Sushil Kumar.