



2059 - BUILDING MATERIALS - II										
Teaching Schedule Per Week			Progressive Assessment		Examination Schedule (Marks)					
Lectures	Practical	Credit			Theory		Practical Ex.		Total	
4	-	4	25	--	3 Hrs	100	--	--	125	
Pre-requisite		Source	Semester	Theory	Test	Total	TW	PR	Gr Total	4
2055		ARC								
				75	25	100	-	-	100	

RATIONALE: The aim of this curriculum is to make the students aware of the more advanced materials & to generate a thinking process for their appropriate use in the building industry.

COURSE CONTENTS		Hrs.	Mks
CONCRETE		10	16
Requirements of good lime concrete & cement concrete, Measurement & proportioning of ingredients of concrete, Grades of concrete, Water cement ratio, Properties of concrete, Field test for concrete, Production, placing, compacting & curing of concrete, Requirements, types & uses of light weight concrete, Introduction to concrete blocks & bricks & there uses.			
FLOOR FINISHING MATERIALS		10	16
Requirements of various floor finishing materials viz. Glazed, earthen ware, cement concrete, PVC, wood, linoleum, Bitumen mastic, and rubber, Choice of flooring material according to its use, Details of laying.			
PLASTICS		2	4
Introduction to plastics & its major classification, Use of plastic in building industry.			
ADHESIVES		2	4
Introduction to adhesives, Types of adhesives, Requirements of synthetic resin & its uses.			
		24	

5. COMMERCIAL FORMS OF TIMBER.

12 16

Requirements of various commercial forms like plywood, particleboard, and fibreboard, blackboard, laminboard, veneers, and laminates, Market forms of the above & there uses.

6. PAINTS AND VARNISHES

12 16

Requirement & uses of a good paint, Constituents of a paint, Preparation of paint Various types of paints & their uses, Requirement and uses of dry & oil bound distemper, Process of painting: - New & old woodwork, Iron, steel and G.I. work. Plastered surface, Requirements, types & uses of varnish. Method of applying of French polish, Wax polishing & oiling of woodwork.

7. PIPES & FITTINGS

10 16

Requirements of different types of pipes used for: -Water supply, Storm water drainage, Drainage of sanitary sewage, Fittings for the above, Methods of laying.

BITUMEN

2 4

Introduction to bitumen as a building material & its major classification, Market forms & its appropriate uses.

GYPSUM

2 4

Brief introduction to the various chemical forms of gypsum, Various market forms & their appropriate uses.

GLASS

2 4

Brief introduction to chemical composition & classification of glass, General requirements of glass, Requirements & uses of various markets form.

Total

64 100

WORK

Discussion & presentation of reports on market study of the following.

Concrete blocks/ bricks.

Various floor finishing materials.

Various commercial forms of timber.

Paints & varnishes.

Various types of pipes & their fittings.

Various gypsum products.

Various market forms of glass.

REFERENCE BOOKS:

Construction
Building Materials
Construction
Engineering
Applied Engineering
Building Materials
Use of Concrete
Construction
Engineering
Technology & Valuation
at Indian standards.

Sushil Kumar.
Rangwala.
Dr. B. C. Punmia.
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