

09ARC 2.2: BUILDING CONSTRUCTION & MATERIALS-II

Written by Administrator
Saturday, 31 October 2009 14:15 -

CONTACT PERIODS: 6 (1 LECTURE + 5 STUDIO) PER WEEK

PROGRESSIVE MARKS : 50

TERM WORK MARKS : 100

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OBJECTIVE:

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To acquaint the students with contemporary construction practices pertaining to roofing for medium spans, foundations and staircases.

OUTLINE:

Construction –

Roof – Timber and steel trussed roof, various parts, their purposes and method of construction. Use of AC sheet, GI sheets and aluminium sheets for roofing.

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Study of principles and methods of construction of RCC foundations and columns, types of foundations – Raft foundations, Grillage foundations and combination. Requirements of staircase. Types of Staircases, construction methods of – Masonry staircase, timber staircase, RCC staircase, steel Staircase and composite staircase. Study of fire escape staircase

Materials –

Cement – Types of cement, their applications, laboratory and field tests.

Concrete Ingredients, grades of concrete, admixtures, properties of concrete, form work, production of concrete, mix, proportioning, mixing, transporting, placing, compaction, curing of concrete, sampling and testing of concrete. Concreting under water, special concretes like light

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weight and heavy weight concrete. Construction joints, expansion joints, finishes in concrete, chemical admixtures.

Properties and architectural uses of mild steel and stainless steel.

Note – Minimum one plate on each topic. Site visits to be arranged by studio teachers. Study of material application in the form of portfolio.

The portfolio pertaining to the topics on construction and materials shall be presented for term work.

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REFERENCES:

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- 1 "Building Construction" by W.B. Mackay

- 2 "Construction Technology" by Chudley

- 3 "Construction of Buildings" by Barry