

## AR143 BUILDING MATERIAL - I (3-0-0)

General introduction to buildings, Natural materials clay materials , bricks, terracotta, stones, timber.

Soils: Formation – Index property, Specific gravity, grain size distribution, plasticity,

characteristics and phase relationship, Identification, Local names, I.S.I. Classification, Sources and uses of sand, fineness modulus.

Bricks : Types and their qualities and their manufacture.

Lime : Fat and Hydraulic lime, their uses and properties, manufacture of lime mortar, functions and requirements of good mortar, mix proportions of various works.

Stones : Types and their qualities and their methods of quarrying.

Cement : Type, properties, composition and manufacturing process and setting of cement composition of cement mortar. Plastering.

Cement Products : Mosaic tiles, CC work etc., Proportions, constitute materials of plain cement concrete including light weight concrete , aerated , cellular, form and such other types of cement concrete products , artificial stone.

Visits to work under construction, to study brick work, stone work and wood work. Report with sketches of visits to be submitted by each student a sessional work.

Introduction to building technology – building components and their functions. Rural construction (Using rural materials like soil, Clamp burnt bricks, thatch, coconut and bamboo trunks, flat tiles) Types of foundations, Types of walls, and simple trusses. Types of flooring and finishes.