

2.17 30289 STANDARD OF BUILDING

UNIT-1 INTRODUCTION

- 1.1 Definition of a building, classification of buildings based on occupancy,
- 1.2 Requirements of a good residential building,
- 1.3 Different parts of a building.

UNIT-2 FOUNDATIONS

- 2.1 Types of foundations: shallow and deep
- 2.2 Shallow foundation constructional details of: Spread foundations for walls, stepped foundation, masonry pillars and concrete columns.
- 2.3 Raft foundation, combined footing, grillage foundation.
- 2.4 Construction preparing foundation plans, setting out, excavation and timbering.

UNIT-3 MORTARS AND CONCRETES

- 3.1 Preparation, use, average strength and suitability of cement,
- 3.2 Ingredient of concrete,
- 3.3 Advantages of concrete,
- 3.4 Types and uses of concrete

UNIT-4 ARCHES AND LINTELS

- 4.1 Meaning and use of arches and lintels.
- 4.2 Glossary of terms used in arches and lintels
- 4.3 Depth of an arch, thickness of lintel, effective span Arches.
- 4.4 Types of Arches Semi Circular, segmental, elliptical and parabolic, flat, inverted and relieving
- 4.5 Stone arches and their construction
- 4.6. Brick arches and their construction

UNIT-5 DOORS AND WINDOWS AND ROOFS AND FLOORS

- 5.1 Glossary of terms used in doors and windows.
- 5.2 Doors name, uses and sketches of metal doors, ledged and battened doors, ledged doors, collapsible doors, rolling steel shutters, side sliding doors, door frames, PVC shutters and metal doors.
- 5.3 Windows names, uses and sketches of metal windows, fully panelled Windows, fully glazed windows, casement windows, fanlight windows and Ventilators, sky light window frames, louvered shutters.
- 5.4 Types of Roofs, concept of flat, pitched, arched and cell roofs
- 5.5 Types of floor

UNIT-6 BUILDING PLANNING

- 6.1. Site selection: Factors to be considered for selection of site for residential, commercial, industrial and public building.

6.2. Basic principles of building planning, arrangement of doors, windows, cupboards, etc. for residential building.

6.3. Orientation of building as per BIS: 7662.

Reference Books:

1. Building Construction Illustrated by Francis D.K. Ching
2. Architectural Graphic Standards by Charles Ramsey, Harold Sleeper, and The American Institute of Architects
3. Fundamentals of Building Construction: Materials and Methods by Edward Allen

