

**BUILDING PLANNING AND CONSTRUCTION MANAGEMENT (11 – CE 202)**

**SYLLABUS**

L	T	P	Cr
3	0	2	4

Brick Masonry: Technical terms; Types of bonds in brickwork and their suitability. Stone Masonry: Technical terms; Classification of stone masonry. Dampness and Damp Proofing: Introduction, Methods of preventing dampness; Damp proofing materials and their classification; Methods of providing DPC under different situations.

Floors: Technical terms; Different types of floors – concrete, mosaic, terrazzo, stone floors, ceramic tile floors, vinyl floors and wood floors. Roofs: Technical terms; Classification of roofs; Steel sloping roofs; Roof covering materials; Types of flat roofs. Scaffolding, Shoring, Under Pinning and Form Work: Types of scaffolding; Types of shoring; Methods of underpinning; Types of formwork; Centering

Building Planning: Introduction to Buildings, Classification of Buildings, National Building Code Building Planning: Selection of Site, Orientation, Ventilation, Furniture requirements, Roominess, Sanitation, Lighting, Space for equipment for air-conditioning, Space for machinery etc.; Aspect and prospect, Privacy, Elegance and economy; Climatic considerations; Materials selection, Wall thickness and Scales

Building Bye-Laws & Regulations: Objectives of Building Bye-Laws, Building regulations; Calculation of Plinth Area (PA), floor area and carpet area; Floor Area Ratio (FAR), Floor Space Index (FSI), Height of Buildings as per local code book

Construction Equipment: Classification of construction equipment; Concreting plant and equipment; Factors affecting the selection; Factors affecting cost of owning and operating the equipment. Quality Control: Importance of quality; Elements of quality; Organization for quality control; Quality assurance techniques; Quality control circles; Total quality management

Construction Management: Introduction, Construction projects, Objectives of Construction management; Steps involved in Project management, Project failures. Planning: Steps involved in planning; Objectives of planning; Principles of planning; Advantages and Limitations of planning, Stages of planning. Scheduling: Scheduling, Methods of scheduling; Bar charts; Mile stone charts; Controlling; Job layout; Factors affecting job layout; Project work break down; Activities involved.

Project Management Through Networks: Objectives of network techniques; Fundamentals of network analysis; Events; Activities; Dummies; Advantages of network techniques over conventional techniques. Program Evaluation and Review Technique (PERT): Introduction; Time estimates; Earliest expected time; Latest allowable occurrence time; Slack; Critical path; Probability of completion time for a project.

Critical Path Method (CPM) & Cost Control: Introduction; Earliest event time; Latest event time; Activity time; Float; Critical activities and critical path; Difference between CPM and PERT, Direct cost; Indirect cost; Total project cost

**Text Books:**

1. Varghese P.C, " Building construction", Prentice hall of India (P) Ltd, New Delhi 2<sup>nd</sup> Edition 2008
2. Seetharaman.S, " Construction Engineering and Management", Umesh Publications, Nai Sarak, Delhi, 2008
3. Shah MG, "Building Drawing", Tata McGraw-Hill, New Delhi, 2006.

**Reference Books:**

1. Punmia B. C, ” Building construction”, Laxmi Publications, New Delhi 5<sup>th</sup> Edition
2. Sengupta.B & Guha.H “Construction Management & Planning”, Tata McGraw – Hill Publishing Co. Ltd., New Delhi.
3. Peurifoy R. L,”Construction Planning, Equipment & Methods”, McGraw – Hill

**CE/BOS/CE202/0412**

## **K L UNIVERSITY**

### **BUILDING PLANNING AND CONSTRUCTION MANAGEMENT (11 – CE 202)**

#### **LIST OF EXPERIMENTS**

<b>L</b>	<b>T</b>	<b>P</b>	<b>Cr</b>
<b>3</b>	<b>0</b>	<b>2</b>	<b>4</b>

1. Draw the Sign Conventions for Engineering Materials, Water supply & Sanitary fixtures and Electrical Installations etc. using Auto cad.
2. Draw the English bond & Flemish bond for one, one and half brick walls using Auto cad.
3. Draw the Doors, Windows and Ventilators using Auto cad.
4. Draw the Residential Building and School Building line diagrams using Auto cad.
5. Draw the Commercial Building and Hospital Building line diagrams using Auto cad.
6. Draw the Sloped roof building with Load Bearing walls using Auto cad.
7. Draw the Flat Roof Building with Framed construction using Auto cad.
8. Draw the Stair Case Plan, Sectional elevations including T- Beam, Landing Beam & landing slab using Auto cad.
9. Draw the Plan, section & elevation for given line plans of Single storied building using Auto cad
10. Draw the Plan, section & elevation for given line plans of Double storied building using Auto cad