CE/BOS/CE C 208/0210

K L UNIVERSITY

BUILDING PLANNING AND CONSTRUCTION MANAGEMENT (CE C 208)

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3	0	2	4

SYLLABUS

UNIT – 1 Introduction: 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

UNIT – 2 **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 Management: Introduction, Construction projects, Objectives of Construction management; Steps involved in Project management, Project failures.

UNIT – 3 **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.

UNIT – 4 **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.

UNIT – 5 **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

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

TEXT BOOKS:

1. Construction Engineering and Management by S. Seetharaman; Umesh Publications, Nai Sarark, Delhi,2008

2. Building Drawing by MG Shah, Tata McGraw-Hill, New Delhi,2006.

REFERENCE BOOKS:

1. Construction Management & Planning by B. Sengupta & H.Guha; Tata McGraw – Hill Publishing Co. Ltd., New Delhi.
2. Construction Planning, Equipment & Methods by Peurifoy R. L.; McGraw – Hill International Book Company.
3. PERT & CPM Principles and applications by L. S. Srinath; Affiliated East West press.

LIST OF EXPERIMENTS

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