

MBA372: CONSTRUCTION PLANNING, SCHEDULING AND CONTROL

Teaching Scheme	Examination Scheme
Lectures: 4 hrs./Week Tutorials: 1 hrs./Week Credits: 4	Class Test -12Marks Teachers Assessment - 6Marks Attendance – 12 Marks End Semester Exam – 70 marks

OBJECTIVE:

To study and understand the concept of planning, scheduling, cost and quality control, safety during construction, organization and use of project information necessary for construction project.

HOURS: 40

UNIT I(10 Hrs): CONSTRUCTION PLANNING: Basic Concepts in the Development of Construction Plans – Choice of Technology and Construction Method – Defining Work Tasks – Defining Precedence Relationships among Activities – Estimating Activity Durations – Estimating Resource Requirements for Work Activities– Coding Systems.


UNIT II(10 Hrs): SCHEDULING PROCEDURES AND TECHNIQUES: Construction Schedules – Critical Path Method – Scheduling Calculations – Float – Presenting Project Schedules – Scheduling for Activity-on-Node and with Leads, Lags, and Windows – Scheduling with Resource Constraints and Precedences – Use of Advanced Scheduling Techniques – Scheduling with Uncertain Durations – Calculations for Monte Carlo Schedule Simulation – Crashing and Time/Cost Tradeoffs – Improving the Scheduling Process.

UNIT III(10 Hrs): COST CONTROL, MONITORING AND ACCOUNTING: The Cost Control Problem – The Project Budget – Forecasting for Activity Cost Control – Financial Accounting Systems and Cost Accounts – Control of Project Cash Flows – Schedule Control – Schedule and Budget Updates – Relating Cost and Schedule Information.

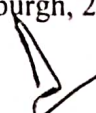
UNIT IV(10 Hrs): QUALITY CONTROL AND SAFETY DURING CONSTRUCTION: Quality and Safety Concerns in Construction – Organizing for Quality and Safety – Work and Material Specifications – Total Quality Control – Quality Control by Statistical Methods – Statistical, Quality Control with Sampling by Attributes – Statistical Quality Control with Sampling by Variables– Safety.

REFERENCES:

1. Calin M. Popescu, Chotchai Charoenngam, "Project Planning, Scheduling and Control in Construction: An Encyclopedia of terms and Applications", Wiley, New York, 1995.
2. Chitkara, K.K. "Construction Project Management: Planning, Scheduling and Control", McGraw-Hill Publishing Company, New Delhi, 1998.
3. Chris Hendrickson and Tung Au, "Project Management for Construction – Fundamental Concepts for Owners, Engineers", Architects and Builders, Prentice Hall, Pittsburgh, 2000.


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