

**IV Year – I SEMESTER**

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**3+1\* 0 3**

**CE703-CONSTRUCTION TECHNOLOGY AND  
MANAGEMENT**

Lecture : 3 hrs/Week Internal Assessment : Marks

Tutorial : 1 Hrs/Week Semester End Examination : Marks

Practical : -- Credits : 3

**SYLLABUS:**

**UNIT- I:**

Construction project management and its relevance – qualities of a project manager – project planning – coordination –scheduling - monitoring – bar charts – milestone charts – critical path method.

**UNIT –II:**

Project evaluation and review technique – cost analysis - updating – crashing for optimum cost – crashing for optimum resources – allocation of resources.

**UNIT- III:**

Construction equipment – economical considerations – earthwork equipment – Trucks and handling equipment – rear dump trucks – capacities of trucks and handling equipment – calculation of truck production – compaction equipment – types of compaction rollers.

**UNIT –IV:**

Hoisting and earthwork equipment – hoists – cranes – tractors - bulldozers – graders – scrapers– draglines - clamshell buckets.

**UNIT –V:**

Concreting equipment – crushers – jaw crushers – gyratory crushers – impact crushers – selection of crushing equipment - screening of aggregate –concrete mixers – mixing and placing of concrete – consolidating and finishing.

**UNIT –VI:**

Construction methods – earthwork – piling – placing of concrete – form work– fabrication and erection – quality control and safety engineering.

**TEXT BOOKS:**

1. ‘Construction Planning , Equipment and Methods’ by Peurifoy and Schexnayder , Shapira, Tata Mcgrawhill.
2. ‘Construction Project Management Theory and Practice’by Kumar Neeraj Jha (2011), Pearson.
3. ‘Construction Technology’ by Subir K. Sarkar and Subhajit Saraswati, Oxford University press.

**REFERENCES:**

1. ‘Construction Project Management - An Integrated Approach’ by Peter Fewings , Taylor and Francis
2. ‘Construciton Management Emerging Trends and Technologies’ by Trefor Williams , Cengage learning .