

SHANTILAL SHAH ENGINEERING COLLEGE, BHAVNAGAR

CIVIL DEPARTMENT

COURSE – B.E.

CEM MST SYLLABUS SEPTEMBER 2022

Module – 1

Introduction: Features of Construction Projects, phases of construction project, Stakeholders of construction management.

Module – 2

Construction project planning- Stages of project planning: Process of development of plans and schedules, work break-down structure, activity lists, assessment of work content, concept of productivities, estimating durations, sequence of activities, activity utility data;

Techniques of planning- Bar charts, Line of balance, Mile stone charts.

Planning and organizing construction site and resources-

Site: Site layout including enabling structures, developing site organization;

Manpower: Planning, organizing, staffing, motivation;

Materials: Concepts of planning, procurement and inventory control;

Equipment: Basic concepts of planning and organizing;

Funds: Cash flow, sources of funds;

Histograms and S-curves, resource scheduling, allocation, smoothing and leveling, common good practices in construction

Networks: Basic terminology, types of precedence relationships, preparation of CPM networks: activity on arrow and activity on node representation, computation of float values, critical paths, and calendaring networks. PERT analysis, calculation of probability of completion.

Module – 3

Project Monitoring & Control - Network crashing and cost time trade off, Periodic progress reports

Module – 5

Construction equipment: Conventional construction methods Vs Mechanized methods

Equipment: Capacity, Feasibility, owning and operating cost and Productivity of Different Equipment: Earthmoving,