B.Tech Civil Engineering (AKU Syllabus) SEMESTER- VIII

CONSTRUCTION PLANNING AND MANAGEMENT Credit : 3

1. Construction and fabrication methods : Pre- fabrication techniques; choice of equipment safety features and Regulations. Lecture : 8
2. Value Analysis, Feasibility studies; Economics of project evaluation: Finance, material and manpower development. Lecture : 8
3. Network analysis, PERT : Leveling of Resources. Lecture : 8
4. Site organization : layout: work study: Decision making processes: CPM and L. P. Project monitoring. Lecture : 10
5. Maintenance management : Case studies. Lecture : 6
6. Introduction to Project Management Software. Lecture : 5

Elective – II Credit : 3

Elective – III Credit : 3

Elective – IV Credit : 3

IRRIGATION ENGINEERING Credit : 3

1. Irrigation Principles and Practices : Introduction. Necessity, Advantages and disadvantages of irrigation, classification, method Irrigation. Lecture : 5
2. Soil water plant and Their Relationship : Soil Classification, Soil- water plant relation , soil moisture relationship, Water Requirement of Crops; Optimum Use of water, Factors affecting water requirement of crops, Duty, Delta; and their relationship. Water Requirement by inductive methods, Critical Coefficients Consumptive use of requirement by climatologically approach, FAO methods for Reference evapotranspiration Lecture : 12
3. Irrigation Efficiencies. Lecture : 3
4. Irrigation Scheduling : for both Irrigated dry and irrigated wet crops, irrigation scheduling in command areas. Lecture : 4
5. Flow Irrigation : Classification of canals, Canals alignments, Components of permanent canal system, Canal capacity, canal losses, Lined channels & their design, Kennedy's slit theory and design of channels on its basis, Lacey's slit theory and regime equations, various types of relations, Design of channels based on Lacey's equation. Lecture : 12
6. LIFT IRRIGATION : Classification, Location, Water lifting arrangement, Yield of wells. Lecture : 6