Construction Technology and management

1. Construction as industry and its challenges, Role of construction management, Methods of construction managements

   2 Lectures

2. Basic requirements of construction management : Learning structures

   2 Lectures

3. Life cycle of construction projects: Conceptual planning, analysis and design, procurement, utilization and maintenance

   2 Lectures

4. Examples of real projects and its learning requirements 2 Lectures

5. Introduction to network based project management techniques : Defining activities and their interdependence, drawing of network, time and resource estimations, use of network as scheduling techniques, use of network as control techniques i.e. project monitoring. 9 Lectures

6. Stages of awarding contract, types of contract, contract documents, arbitration and settlement of disputes, contract laws and handling of contracts, commissioning of project

   3 Lectures

7. Principles of estimation, Examples of estimation of materials for various structures, Principles of general and detailed specifications 4 Lectures

8. Analysis of rate: definition of analysis of rates, prime cost, work charged establishment, resource planning through analysis of rate, PWD schedules, measurement and measurement book 4 Lectures

9. Construction Technology : construction of superstructure and substructures, Quality control, Various items of construction : Earthwork, Excavation, Earth-moving, Drilling, Blasting, dewatering, foundation, Finishing items, painting, flooring, brick works, door, windows. Examples of construction of structures such as buildings, bridges, roads, tunnels, industrial structures, Construction safety

   9 Lectures

10. Use of information technology in construction industries 2 Lectures

11. Automation in construction industry : A general discussion 1 Lecture