

# GUJARAT TECHNOLOGICAL UNIVERSITY

## M.E. (CIVIL) – (Branch-49)-Construction Management

Year – I (Semester – II) (W.E.F. January 2013)

### 1724901: Construction Project Management – II

Sr. No.	Course Content
1	<b>Project Scheduling procedures and Planning</b> <i>Principals of scheduling</i> – Bar Chart, Milestone chart, S-Curve CPM and PERT Network analysis with computations, Critical path scheduling for Activity-on-node and with leads, Lags and Windows with computations of leads, lags, Precedence Network Analysis. Resource Smoothing and Resource Leveling, Network updation
2	<b>Material &amp; Equipment Management</b> Planning and management of manpower, material and equipment <i>Material Management</i> – Procurement, Purchasing procedure and its aspects, material transportation, Stock inventory and its functions, Inventory control model, economic order quantity  <i>Equipment management-</i>  Selection of equipments with consideration on required tractive efforts , rolling resistance , traction co-efficient , Rimpull, Drawbar pull, Impact of altitude, pressure and temperature on the performance of combustion engines
3	<b>Manpower (Human resource) management</b> <i>Personnel Management</i> – Concept, manpower estimation for project ,Recruitment, training, compensation, Emphasis on retaining of technical and managerial staff in organization,Trade union and Trade union act-1926,Workers participation in management ,Contract Labour (R & A) Act, 1970, bonus, wages, Workmen Compensation Act-1923,

#### Tutorials:-

1. Assignment work is based on above subject contents.

#### Reference:

1. The Management of construction, Bennet F.L, Butterworth Publication (Elsevier)
2. Chitkara, K.K. " Construction Project Management Planning ", Scheduling and Control, Tata McGraw Hill Publishing Co., New Delhi, 1998
3. Construction Management Fundamentals, Knutson, Fiori and Mayo
4. Construction Planning and Technology , Gupta Rajiv, CBS Publication
5. Fundamentals Network Analysis & Synthesis , Pandey S.K., S.Chand Publication
6. Construction Project Management, Jha Neerajkumar, Pearson Publication
7. Personnel Management- Monappa A & M .S. Saiyadain- Tata MacGraw Hill , New Delhi
8. Personnel Management- Ghosh S – Oxford & IBH New Delhi, 1985