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Total Number of Pages: 02

**M.Tech.
P1CTBC04**

**1st Semester Regular/Back Examination 2017-18
PROJECT PLANNING AND MANAGEMENT
BRANCH: CONSTRUCTION TECH. AND MANAGEMENT**

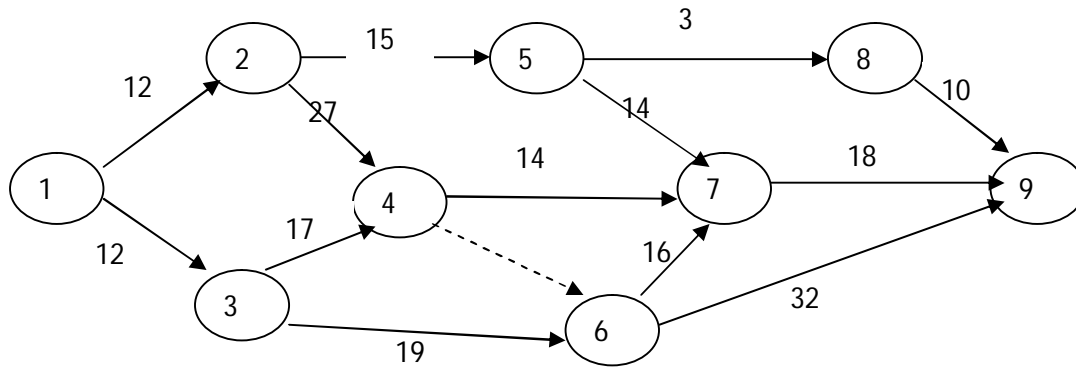
Time: 3 Hours

Max Marks: 100

Q.CODE: B1026

**Answer Question No.1 which is compulsory and any FOUR from the rest.
The figures in the right hand margin indicate marks.**

- Q1 Answer the following questions: *Short answer type* (2 x 10)**
- a) Why is scheduling updating needed for construction projects?
 - b) What are the errors in a network?
 - c) What is project management plan? Give an example.
 - d) What do you understand by *total float*?
 - e) Why project control is important?
 - f) What is Work Breakdown Structure?
 - g) Distinguish between an *activity* and an *event*.
 - h) List out four popular project management softwares.
 - i) Which claims can be considered as contractual in nature?
 - j) What are the various disputes resolutions mechanisms adopted by construction industries?
- Q2 a) Define project planning and scheduling. Differentiate between the two terms. (10)**
What makes planning and scheduling construction projects different from general planning?
- b) List the benefits of CPM scheduling in construction projects from the (10)**
contractor's perspective
Owner's perspective
- Q3 a) Draw a PERT network for the followings. Find out critical path and find (10)**
expected time of the network.
- | <u>Activity</u> | <u>Three time Estimates (days)</u> |
|-----------------|------------------------------------|
| 1-2 | 6-10-14 |
| 1-3 | 5-7-15 |
| 2-3 | 3-5-7 |
| 2-4 | 4-7-16 |
| 3-5 | 1-2-3 |
| 3-6 | 3-6-15 |
| 4-5 | 0-0-0 |
| 5-7 | 2-10-12 |
| 6-7 | 3-5-7 |
- b) State Fulkerson's rule for numbering the nodes in a network. (10)**
- Q4 a) Write the sources of claims, and causes of disputes. (10)**
- b) Write short notes on : (10)**
- a) disputes resolution by conciliation
 - b) utility of arbitration in construction contracts
- Q5 a) What is the difference between the time estimates of a PERT activity and a (6)**
CPM activity?
- b) Calculate all activity times of the following CPM network and hence obtain (14)**
critical path and project duration (in days).



- Q6 a)** Discuss resource allocation, resource leveling and resource smoothing process. **(10)**
- b)** Propose how the effective use of project management software can help an organisation manage its projects throughout each stage of the project life cycle. **(10)**
- Q7 a)** Discuss the importance of inventory management in material management. **(10)**
- b)** Write short notes on : **(10)**
- a) ABC analysis
 - b) EOQ model