

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY****FIRST SEMESTER M.TECH DEGREE EXAMINATION****Civil Engineering****(Structural Engineering and Construction Management)****04CE6413 Construction Planning Scheduling and Control**

Max. Marks : 60

Duration: 3 Hours

**Answer all Questions****Part A**

1. How can you estimate activity duration? Explain briefly.
2. What do you mean by leads and lags? Explain with an example.
3. What is resource oriented scheduling?
4. What do you mean by Time/Cost Tradeoffs? Mention two objectives.
5. What is a project budget ?
6. Explain cash flow.
7. Explain material specification in construction.
8. Explain the importance of safety in construction.

(8x3=24 marks)

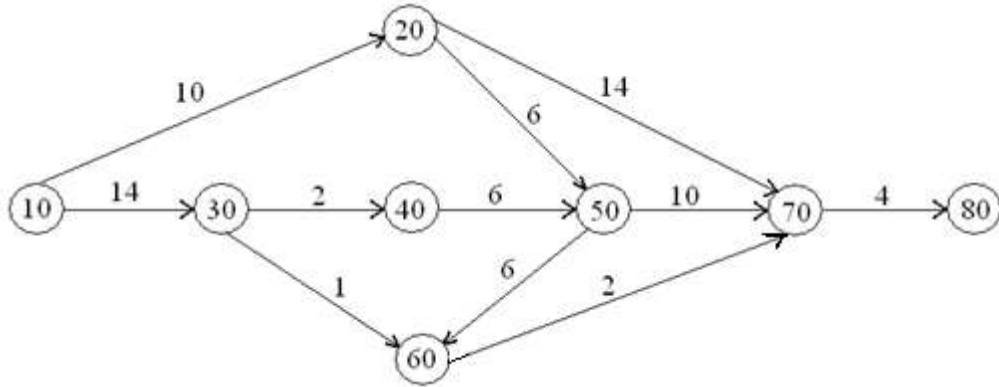
**Part B**

9(a) Explain the importance of coding system in construction industry.

**OR**

9(b) Comment on Precedence Relationships among Activities.

10(a) The network for a certain project is shown along with the estimated time of completion of each activity. Compute the activity times and float values for each activity. Also locate the critical path on the network.



**OR**

10(b) Substantiate the importance of Construction Schedules.

11(a) Discuss the use of Advanced Scheduling Techniques in Civil Engineering.

**OR**

11(b) Substantiate use of PERT in scheduling with uncertain durations.

12(a) Explain why construction project executions do not strictly follow construction schedules.  
(6 marks)

**OR**

12(b) Comment on how to improve scheduling process.

13(a) Elucidate the concept of schedule and budget updates.

**OR**

13(b) Substantiate the importance of forecasting for activity cost control.

14(a) Justify the importance of total quality control in construction management.

**OR**

14(b) Explain about Quality Control by Statistical Methods with examples.

(6x6=36 marks)