

IV B.Tech II Semester Regular/Supplementary Examinations, July - 2021

**CONSTRUCTION TECHNOLOGY AND MANAGEMENT**

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

*Question paper consists of Part-A and Part-B**Answer ALL sub questions from Part-A**Answer any FOUR questions from Part-B*

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**PART-A** (14 Marks)

1. a) What is float? What are the different types of floats? [2]
- b) Define optimistic time estimate, pessimistic time estimate and most likely time estimate. [3]
- c) What is the use of rear dump truck? [2]
- d) Discuss the advantages of Clamshell buckets. [3]
- e) List out the different types of crushers. [2]
- f) What is meant by fabrication? [2]

**PART-B** (4x14 = 56 Marks)

2. a) Discuss in detail the limitations of a bar chart. How the mile stone chart is an improvement over the bar chart? [7]
- b) For the given network in fig.1, calculate
  1. Earliest & latest activity time for each activity.
  2. Total float, free float and independent float.
  3. Determine the critical path.

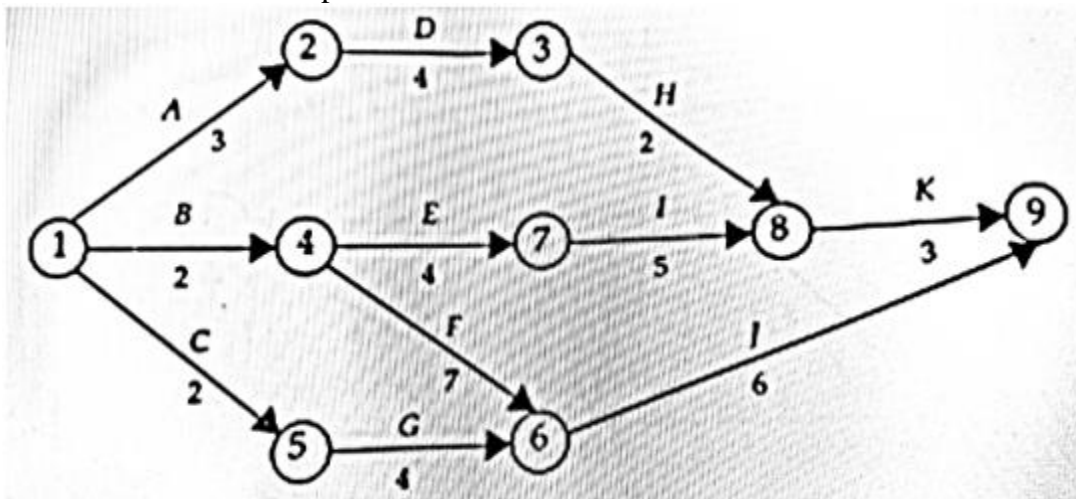


Fig: 1

3. a) For the network shown in Fig 2 determine the slack for various events, if the scheduled date of completion of the projects is 36 days. Present the computations in tabular form.

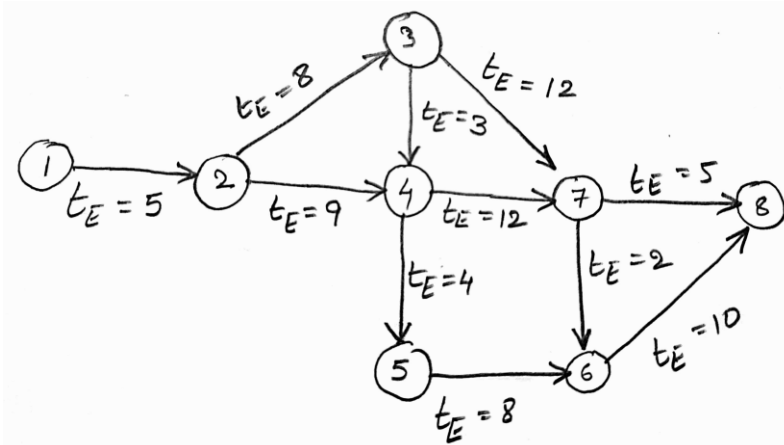


Fig 2

- b) Explain about crashing for optimum cost and crashing for optimum resources. [7]
4. Mention the various types of earthwork equipment and their uses keeping in view of economical considerations. [14]
5. a) Explain the operation and applications of drag lines. [7]  
 b) What considerations govern the selection of wheel type or crawler type tractor on a job? Compare their applications. [7]
6. a) Explain in detail about screening of aggregate. [7]  
 b) Give the detailed classification of Concrete mixers along with their limitations, advantages and disadvantages. [7]
7. Write short notes on  
 (a) Quality control and safety engineering  
 (b) Form work [14]

