

Code No: RT41013

**R13**

**Set No. 1**

**IV B.Tech I Semester Supplementary Examinations, February/March - 2018**  
**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 THREE questions from Part-B*

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**PART-A (22 Marks)**

1. a) What do you understand by critical path? [4]
- b) What is project planning? [3]
- c) Explain the event slack? [4]
- d) Write about hoists. [3]
- e) Write the purpose of impact crushers. [4]
- f) Write about placing of concrete. [4]

**PART-B (3x16 = 48 Marks)**

2. a) What are different elements present in PERT network and explain with an example [8]
- b) Explain in detail Resources Smoothing method of Resources allocation problems. [8]
3. The network of a certain project is shown in Figure.1 with the estimated durations of various activities. Determine the following: (i) Earliest event time and latest event time (ii) Earliest and latest start and finish times of each activity. (iii) Total and free floats for each activity. (iv) Critical path for the network.

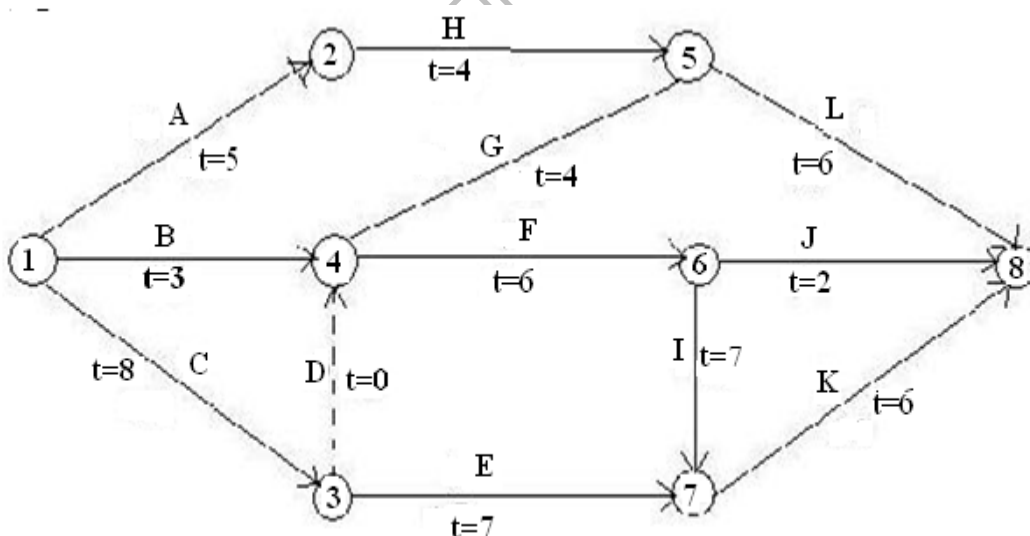


Figure 1

[16]

4. Draw a typical cost – duration curve and show on the optimum duration and minimum project Cost. [16]

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5. a) Write short notes on: tractors, motors and graders. [8]  
b) Write short notes on  
(i) Screening equipment  
(ii) Crushers  
(iii) Handling equipment [8]
6. a) Briefly explain about batching and mixing equipment [8]  
b) Write about mixing and placing of concrete. [8]
7. Write short notes on  
(a) Quality control and safety engineering  
(b) Form work  
(c) Fabrication and erection [16]

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