JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST-3 EXAMINATION, Dec. 2017
M.Tech. (Construction Management) 1st Semester

COURSE CODE: 10M11CE113   MAX. MARKS: 35
COURSE NAME: Construction Planning and Control
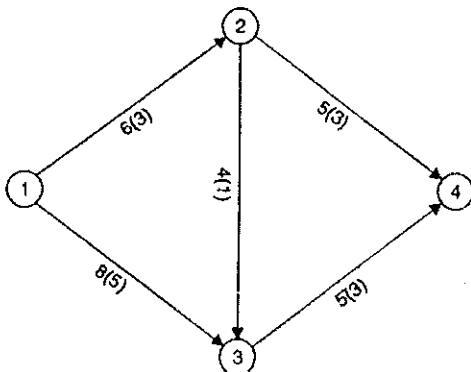COURSE CREDITS: 3   MAX. TIME: 2 HRS.

Note: All questions are compulsory. Assume missing data suitably, if any.
Marks are indicated against questions.
Carrying of mobile phone during examinations will be treated as case of unfair means.

1. What is updating? Under what circumstances a network needs to be updated? Give a list of data required for a network to be updated. Explain the updating process with the help of updating cycle. Which points need to be taken into consideration while deciding the time of network update? **(7)**

2. The following figure shows a network diagram with time duration and cost of activities.

Activity	Normal duration (weeks)	Normal cost (Rs.)	Crash duration (weeks)	Crash cost (Rs.)
1—2	6	7000	3	14500
1—3	8	4000	5	8500
2—3	4	6000	1	9000
2—4	5	8000	3	15000
3—4	5	5000	3	11000

The direct cost of the project is Rs. 3000 per week. Determine the optimum duration of the project and the corresponding minimum cost. Draw the time scaled version of the network at each stage of crashing. **(7)**

3. With the help of a suitable illustrative example, explain the resource smoothening method of project control. **(7)**

4. What do you understand by delay in projects? Discuss the common reasons of delay in construction projects. How delay affect other aspects of construction project. Discuss the types of delays in construction project. Under what circumstances, a contractor can ask for time extension. **(7)**

5. What is earned value management? What are its basic elements? Discuss this technique by taking a suitable example. What are the benefits of this type of analysis for a construction project? **(7)**

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