

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT  
TEST -3 EXAMINATION- Dec 2018  
B.Tech 5<sup>th</sup> Semester

COURSE CODE: 10B11CE515

MAX. MARKS:35

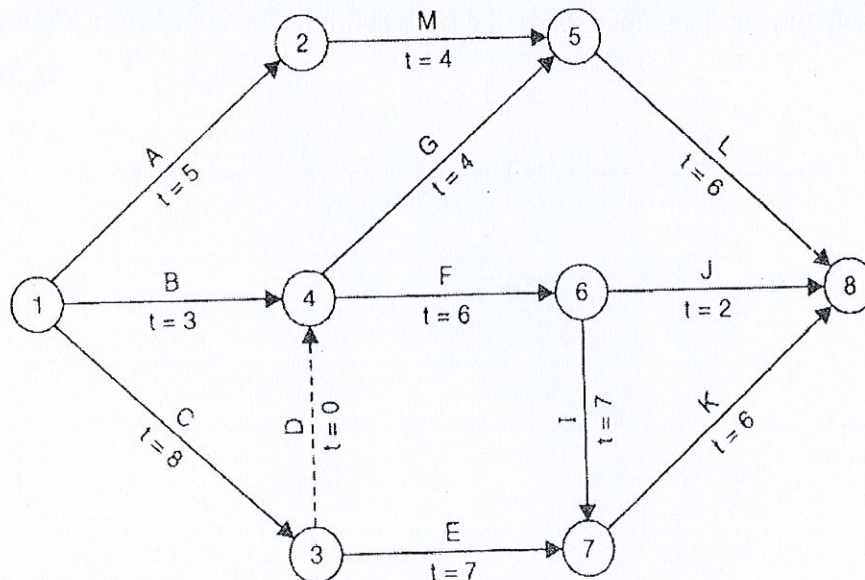
COURSE NAME: Construction Technology and Management

COURSE CREDITS: 4

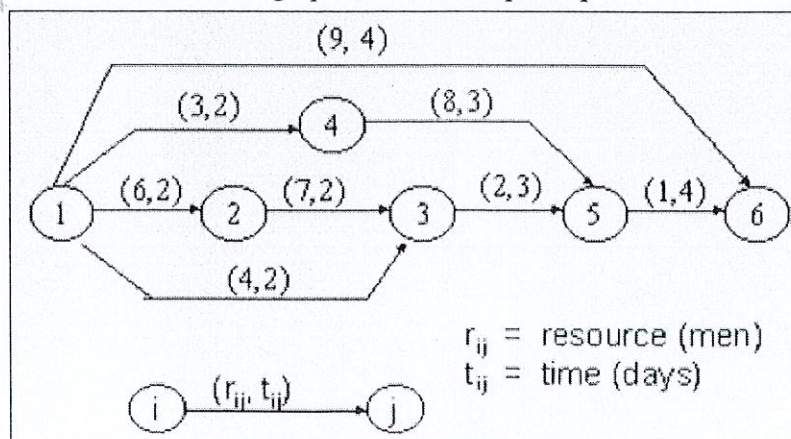
MAX. TIME: 2 Hr

**Note:** All questions are compulsory. Carrying of mobile phone or sharing of materials during examinations will be treated as case of unfair means. Use Graph Paper whenever required.

- Q1.** (a) Describe various phases of project management.  
(b) Bring out the differences between bar chart and mile stone chart.  
(c) Define the term 'direct cost', 'indirect cost' and 'outage losses. What is cost slope? How do you determine it? [1+1+2 = 4 Marks]
- Q2.** The network of a certain projects is shown below. Calculate (a) Total Float (b) Free Float (c) Independent Float (d) Project duration and identify critical path for the project. [5 Marks]



- Q3.** Consider the network diagram shown below. Level out the requirement of the resources, if the maximum number of labour, on any day, has to be limited to 9. Draw the allocation of resources before and after Leveling operation on **Graph Paper**. [6 Marks]



- Q4. a) Explain in detail about the trucks and hauling equipment.  
b) Describe the different types of compaction rollers. [2.5x2=5 Marks]
- Q5. a) What are the merits and demerits of Clamshell buckets?  
b) Explain any one method of underground concreting. [2.5x2=5 Marks]
- Q6. a) What is the sequence of operations in 'erection of steel structures'? Also explain its salient features.  
b) Explain advantages and disadvantages of '*Well point system*' of dewatering technique at construction sites. [2.5x2=5 Marks]
- Q7. a) With the help of neat diagram, explain the parts and functions of '*Derrick Cranes*'?  
b) With the help of neat diagram, explain the parts and functions of '*Power Shovel*'? [2.5x2=5 Marks]

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