

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
 TEST -2 EXAMINATION- October 2017
 M.Tech. (CM), 1st Semester

COURSE CODE: 10M11CE113

MAX. MARKS:25

COURSE NAME: **Construction Planning and Control**

COURSE CREDITS: 03

MAX. TIME: 1.5 Hr

Note: All questions are compulsory. Every question carries 5 marks.

Carrying of mobile phone during examinations will be treated as case of unfair means.

- Q.1. How beta distribution curve is suitable for PERT analysis. How expected time and standard deviation is calculated. Differentiate normal probability distribution and beta distribution.
- Q.2. The network for a construction project is shown in Figure 1. The three time estimates are given for each activity. Calculate (i) Expected time of completion of each activity (ii) Earliest expected time of each event, (iii) latest allowable occurrence time of each event.

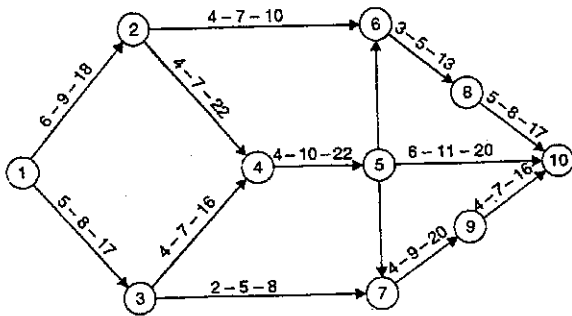


Fig 1

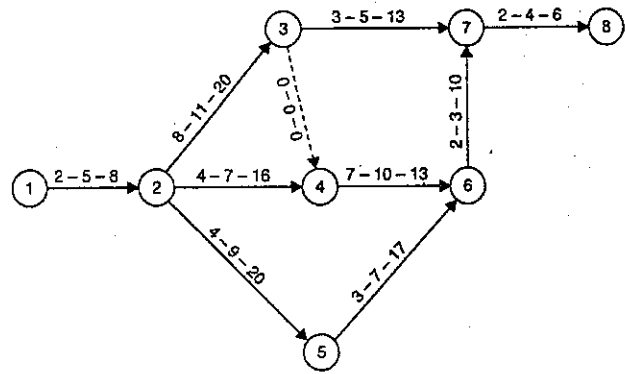


Fig 2

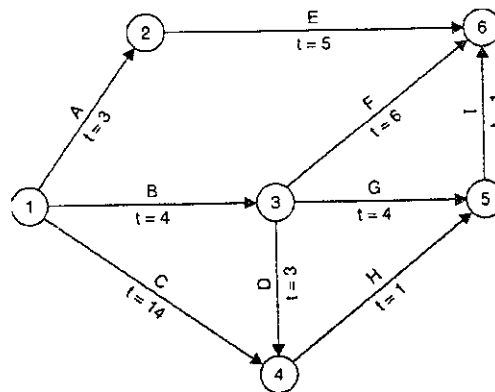


Fig 3

- Q.3. Figure 2 shows network for a construction project, with three time estimates shown on each activity. Determine: (a) Critical path and its standard deviation, (ii) Probability of completion of project in 40 days.
- Q.4. Determine total float for each activity below and determine critical path. Calculate free and independent float for each activity for project network shown in Figure 3.
- Q.5. Show the variation of project cost with time duration. What do you understand by indirect and direct project cost? Explain by giving suitable examples.