

## Assignment II

### Project Management and Monitoring (OECE-103)

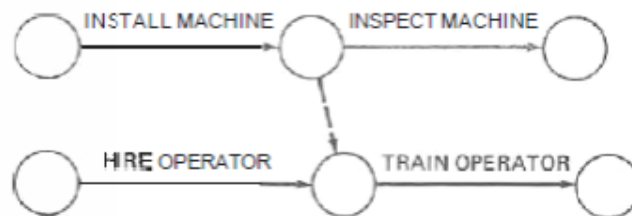
Department of Civil Engineering  
Guru Nanak Dev Engineering College, Ludhiana

Subject Teacher: Sukhwinder Singh

Branch: Electrical Engineering and Electronics & Communication Engineering

Q 1.

- (a) Review the machinery installation sample network in Figure – 1 and assume that an activity consisting of "schedule inspector" must precede "inspect machine." Add the activity to the network without causing a false dependency.

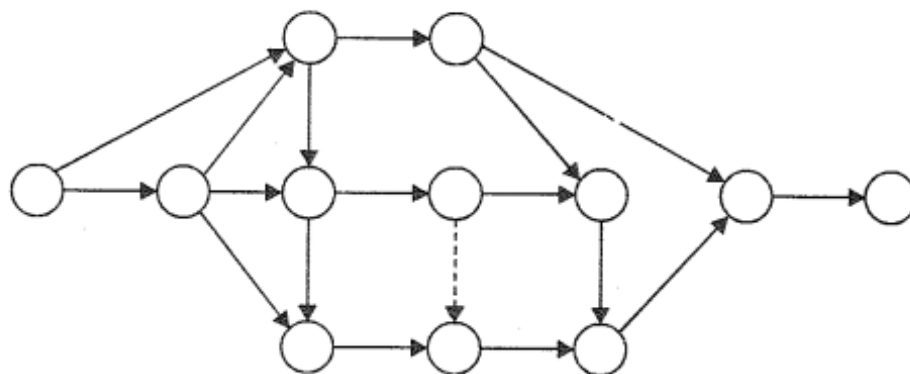


**Figure 1**

- (b) In what specific ways are milestone charts superior to bar charts? How is a network superior to a milestone chart?

Q 2.

- (a) Explain Fulkerson's rule for numbering the events of a network.
- (b) Using Fulkerson's rule, number the events of the network shown in Figure – 2.



**Figure 2**

Q 3.

The network for a certain project is shown in Figure – 3. Determine the expected time for each path. Which path is critical?

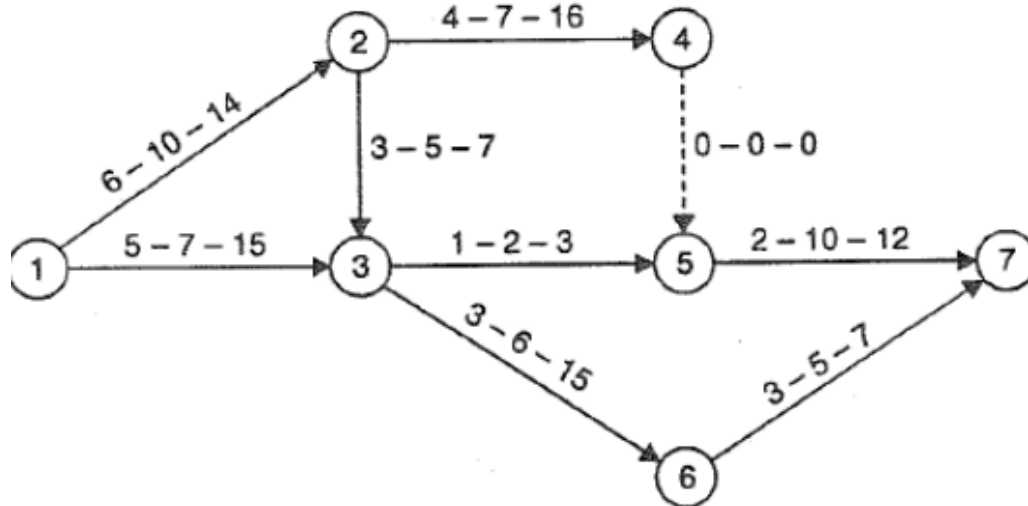


Figure 3

Q 4.

For an activity of a project, time estimates received from three engineers *P*, *Q* and *R* are as follows:

	Optimistic time	Most likely time	Pessimistic time
Engineer <i>P</i>	12	11	17
Engineer <i>Q</i>	8	9	15
Engineer <i>R</i>	6	12	14

State which Engineer is more certain about the time of completion of the activity.

Q 5.

From the data given in the table for a CPM project draw the network and determine critical path based on total float.

Job	1-2	2-3	2-5	2-4	4-5	3-6	5-6	5-7	6-7	4-8	4-10	8-10	7-9	9-10	6-9
Time (Days)	3	6	5	8	2	11	10	5	3	9	4	3	8	2	11

Q 6. Jcjc

Determine the critical path for the network shown in Figure-2, Number indicate time in weeks.

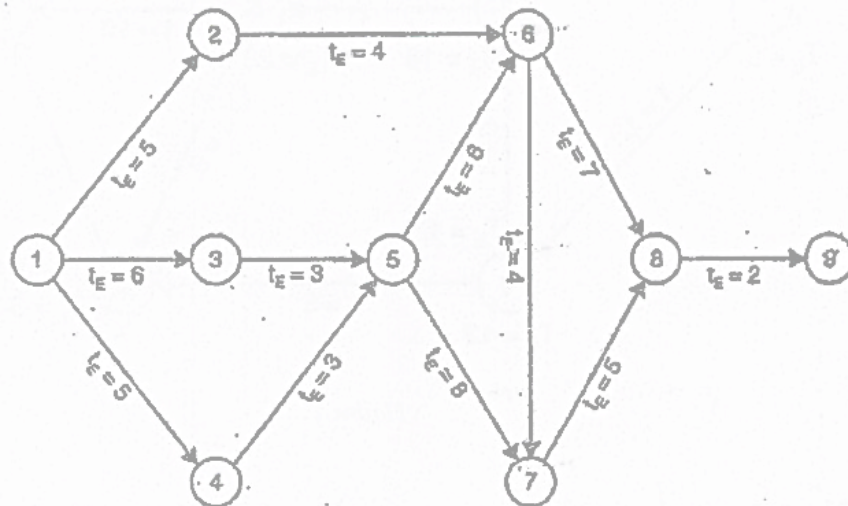


Figure 2