Sahib Bajwa

EMEN 4030

HW #1

1. The critical Path is the longest path through the network diagram. It is the sequence of events that take the most time. The sequence that takes the most time in the network diagram is: Start, A, B, C, F, G, End - at 36 days.

2. The total float of activity D is 3. The early finish for activity D is 20. The late finish for activity D is 23 because you need 7 days to finish E and the critical path meets back up with D's path in 13 days. 23-20 is 3 so the total float of activity D is 3.

3. It does not change the critical path, but it does mean that D must finish before F starts. Because D's late finish is 6 days and that is before F starts, it does not change either with adding a dependency from D to F.

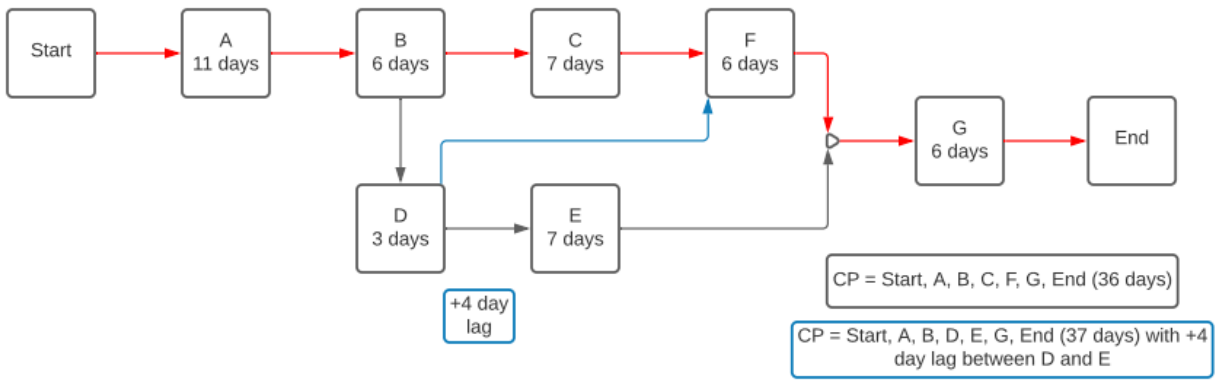
4. The early start of C is 18. The two tasks before C are A and B and those both take 11 and 6 days so those two tasks will take 17 days. That means the earliest start day is 18 for C.

5. The total float of B is 0 because it is a part of the critical path.

6. Late finish of A is 11. Since A is part of the critical path, that means that the late finish and the early finish are the same, the earliest possible time A can finish.

7. The late finish of activity E is 31 if we add 4 days of lag time between D and E. Before adding the lag time, the late finish is 27. So, adding the 4 days makes it 31. This is also the early finish for E because E would then be in the critical path.

8. Yes it does change the critical path. The total critical path will be 37 and will replace C and F with D and E.




"On my honor as a University of Colorado at Boulder student I have neither given nor received unauthorized assistance on this work"

Sahib Bajwa