

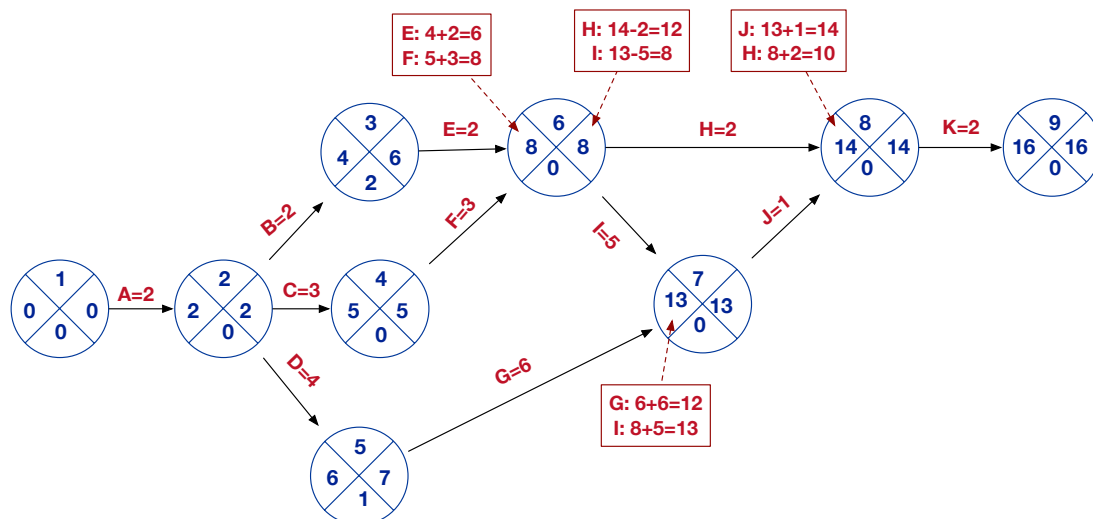
## Solution for Critical Path Analysis

### List of Activities

Activity	Initial Node	Final Node	Estimated Duration
A	1	2	2
B	2	3	2
C	2	4	3
D	2	5	4
E	3	6	2
F	4	6	3
G	5	7	6
H	6	8	2
I	6	7	5
J	7	8	1
K	8	9	2

(1) Draw the AOE network diagram for critical path analysis (10pt)

### AOE Network



(2) What is/are the critical path(s)? (5pt)

The Critical Path is  $1 \rightarrow 2 \rightarrow 4 \rightarrow 6 \rightarrow 7 \rightarrow 8 \rightarrow 9$  (A,C,F,I,J,K)

Path  $1 \rightarrow 2 \rightarrow 4 \rightarrow 6 \rightarrow 8 \rightarrow 9$  is not critical path as it takes 12 days instead of 16.

(3) Assume the project starts from day 0, what is the earliest date to finish the project and why? (5 pt)

Day 16 s