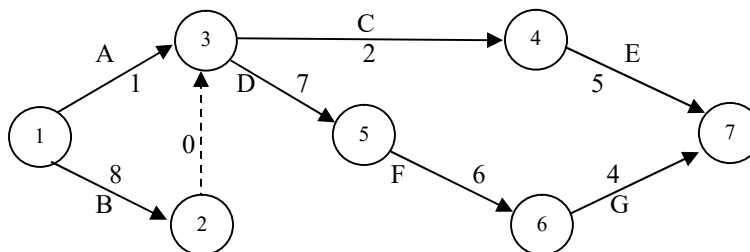


**OPRE 6398.003 Prescriptive Analytics
Homework 12**

1. The PERT network for a subcontracting project is shown below, where the activity times are in weeks:

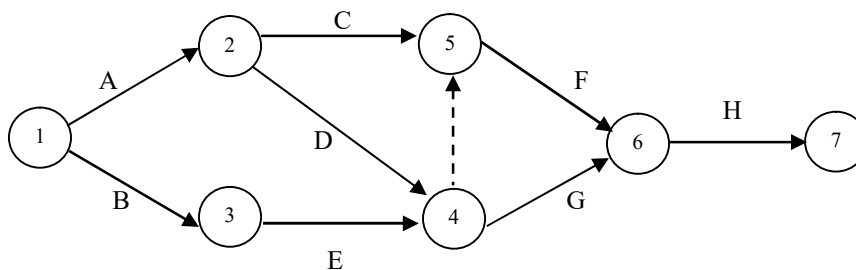


Use the enumeration method to solve the problem by answering the following questions:

- (1) What are the critical path and the critical activities?
 - (2) How long will it take to complete the entire project?
2. The activities involved in a purchasing project to be undertaken are:

Activity	Time (weeks)			IPs
	a	m	b	
A	1	3	5	-
B	1	2	3	-
C	1	2	3	A
D	2	3	4	A
E	3	4	11	B
F	3	4	5	C, D, E
G	1	4	6	D, E
H	2	4	5	F, G

The probabilistic PERT network without activity times for the project is shown below:



- (1) Prepare a table similar to the one in Solutions to Example 15.8, where key information about the activities and the paths is summarized.
- (2) Use the Z tables at the end of Lecture Notes on Chapter 15 to determine the probability that the entire project will be completed within 16 weeks.