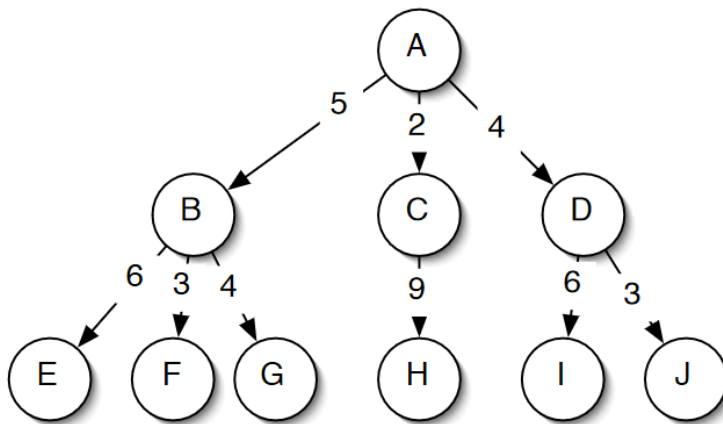


# Assignment

## Problem 1: Searching

Consider the graph shown in Figure, and suppose the heuristic estimate of the distance to G in table and the numbers on the arrows are the arrows lengths.

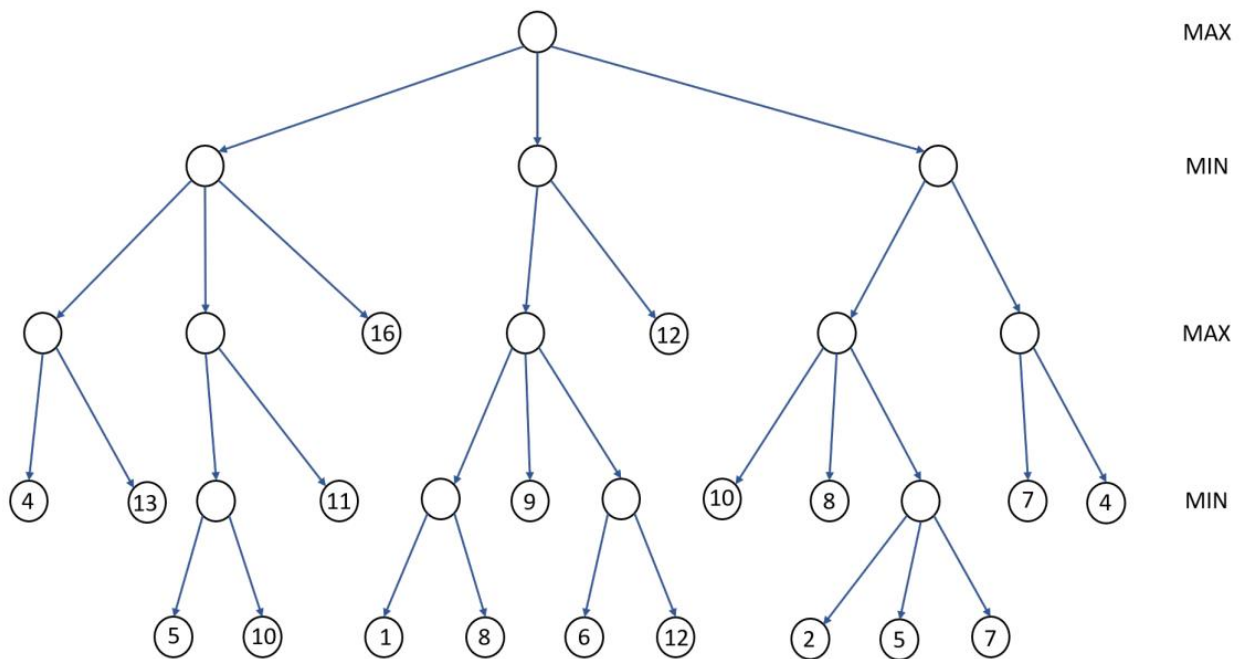


State	H
A	10
B	1
C	6
D	3
E	0
F	0
G	0
H	0
I	0
J	0

For each of the following search strategies, give the path that would be returned, or write none if no path will be returned. If there are any ties, assume alphabetical tiebreaking (i.e., nodes for states earlier in the alphabet are expanded first in the case of ties).

- a- Depth-first graph search
- b- Breadth-first search
- c- Best-First Search
- d- A\* Search

## Problem 2: Minimax and Alpha-Beta



- 1- Fill in each blank circle with the proper value according to mini-max search.
- 2- Use alpha-beta pruning to cross out each leaf nodes that will not be examined (Show your alpha beta computations).