# Artificial Intelligent
## Assignment 1

## Question 1

Consider the search space below, where S is the start node and G1 and G2 are goal node. Arcs are labeled with the value of *a cost function*; the number gives the cost of traversing the arc. Above each node is the value of a *heuristic function*; the number gives the estimate of the distance to the goal. Assume that *uninformed search* algorithms always choose the left branch first when there is a choice. Assume that the algorithms **do not** keep track of and recognize repeated states.

For each of the following search strategies,
(a) Indicate which goal state is reached first (if any) and
(b) List in order, all the states that are popped off the frontier list.
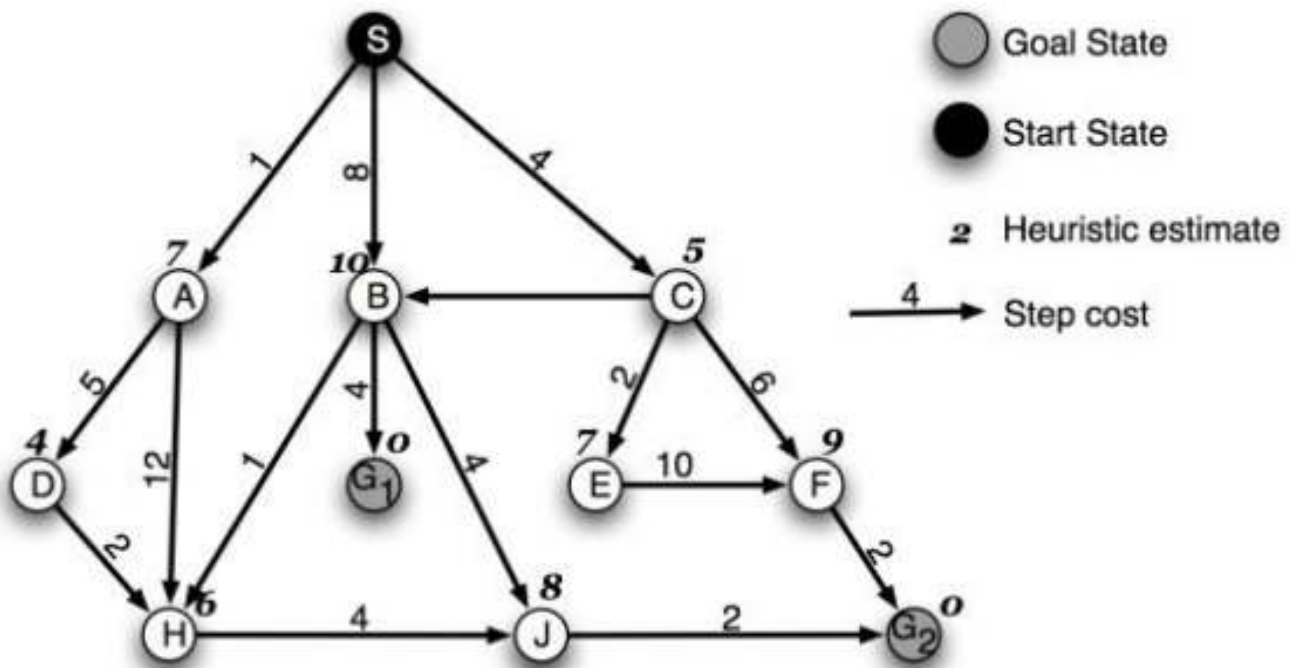


1. Depth-First Search
2. Breath-First Search
3. Iterative Deepening Search
4. Greedy Best-First Search
5. A* Search
**NOTE: The Step cost from node C to node B is 2**