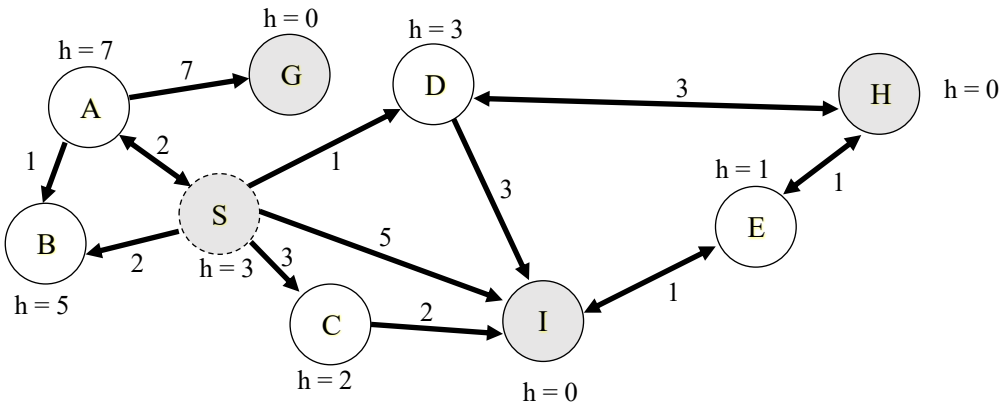
Consider the following search problem where S is the start state, and G, H and I are goal states.




Write down and explain if the provided heuristic is

(a) admissible, and
(b) consistent

Can a heuristic be consistent but inadmissible?

Can a heuristic be admissible but inconsistent?

Assuming that children are added to the frontier in alphabetical order, write down

(a) the order of explored states, and
(b) the solution path

for each of the following search algorithms

(i) BFS-TSA

(ii) DFS-GSA

(iii) UCS-TSA

(iv) A*-GSA