In the following search space, the number beside edges denotes the path cost between nodes, and \( h \) is the estimated path cost from the node to the goal state \( G \).

A. Give the order by which the nodes are visited in an A* search of the space. Write down the \( f(n) \) for each node \( n \).

B. Would greedy search do better? How many more or less nodes does it take greedy search to reach \( G \)?

C. If \( H \) is also a goal, which algorithms among breadth-first, depth-first and iterative-deepening would find the optimal solution?

D. The heuristic function \( h \) has a problem; it overestimates the cost from \( C \) to \( G \). What property of A* search would be lost if \( h \) has this problem?