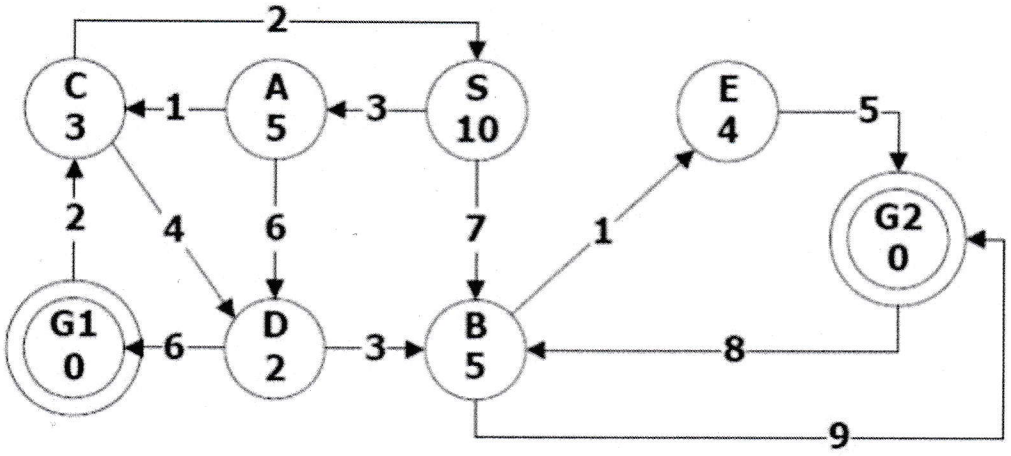
Question-2 [25 Points]:

Assume that you have the following search graph, where *S* is the start node and *G1* and *G2* are goal nodes. Edges are labeled with the cost of traversing them and the estimated cost to a goal is reported inside nodes.



For each of the search strategies listed below,

a) Indicate which goal state is reached if any
b) List, in order, the states expanded (Break the ties in alphabetical order)
c) State the number of visited (i.e. expanded) nodes (including goal node)

1. [5 Points] *Breath-first*
2. [5 Points] *Depth-first*
3. [5 Points] *Bidirectional (Start from S, and both G1 and G2)*
4. [5 Points] *Best-first (using f=h)*
5. [5 Points] *A* (using f=g+h)*