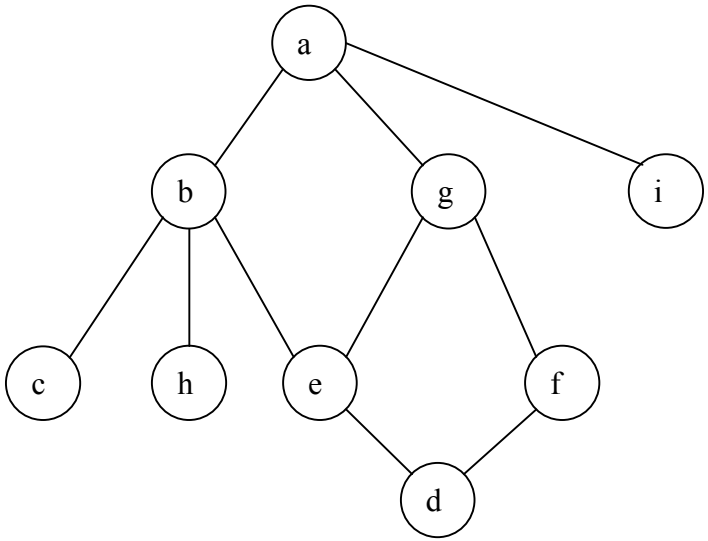
6. (a) Describe the adjacency list and adjacency matrix structures for representing unweighted directed graphs. [8 marks]

(b) Give one example of an application for which an adjacency list representation would be appropriate, and one for which an adjacency matrix would be suitable. Justify your answers. [4 marks]

(c) Describe using pseudo-code the depth-first and breadth-first search methods which can be applied to graphs. [10 marks]

(d) Using the following graph state the order in which the nodes will be traversed for depth-first search (starting at "a"). [1 mark]



(e) Using the same graph as (d) state the order in which the nodes will be traversed for breadth-first search (starting at "a"). [1 mark]