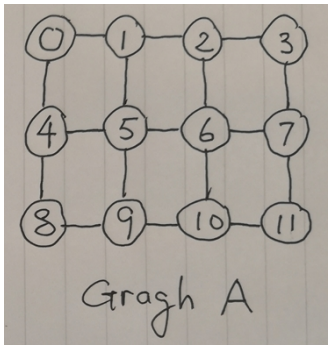
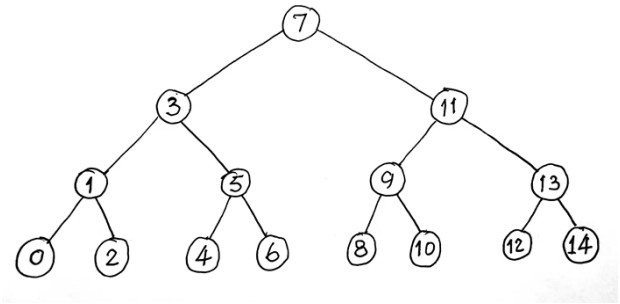
Question I Give a Graph A as shown:



1) What is the diameter of Graph A? (The diameter of a graph is defined as the **largest shortest path distance in the graph**. In other words, it is the maximum value of over all pairs, where denotes the shortest path distance from vertex to vertex.)
2) Write down a depth-first search visiting order starting from 0 to visit all vertices in Graph A.
3) Write down a breadth-first serach visiting order starting from 0 to visit all vertices in Graph A.

Question II Give a binary tree as in Graph B.



Graph B A binary tree to be visited

4) Write down the vertex series using depth-first search by pre-order to visit all vertices in Graph B.

5) Write down the vertex series using depth-first search by in-order to visit all vertices in Graph B.

6) Write down the vertex series using breadth-first search by pre-order to visit all vertices in Graph B.

Please send your answers to program06@yeah.net before 22:00, Dec. 10.