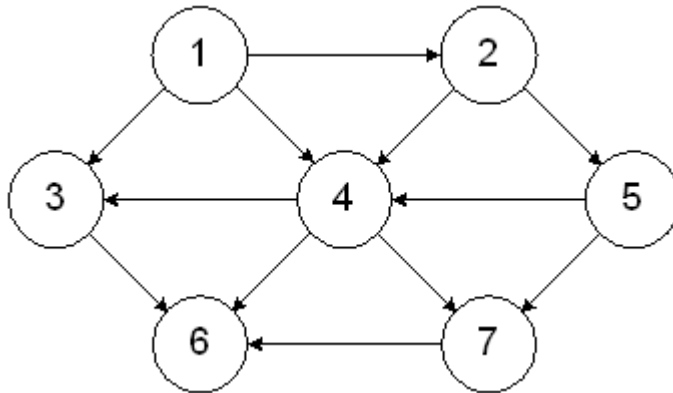




- c) Explain topological sort. (4)

**Q-5 Attempt all questions (14)**

- a) Explain push, pop, peek operation in stack with algorithm. (5)  
 b) Explain adjacency list and adjacency matrix representation of graph. (5)  
 c) Write In degree and Out degree of each vertices. (4)

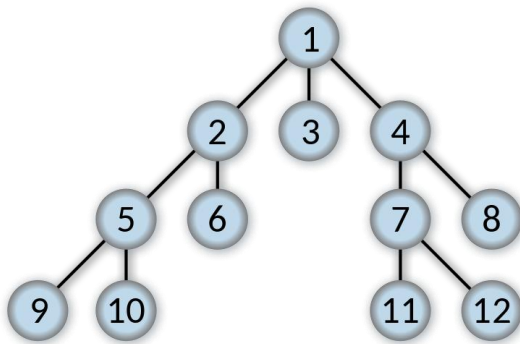


**Q-6 Attempt all questions (14)**

- a) Explain binary search algorithm in detail. (7)  
 b) Explain big oh notation, omega notation & theta notation. (7)

**Q-7 Attempt all questions (14)**

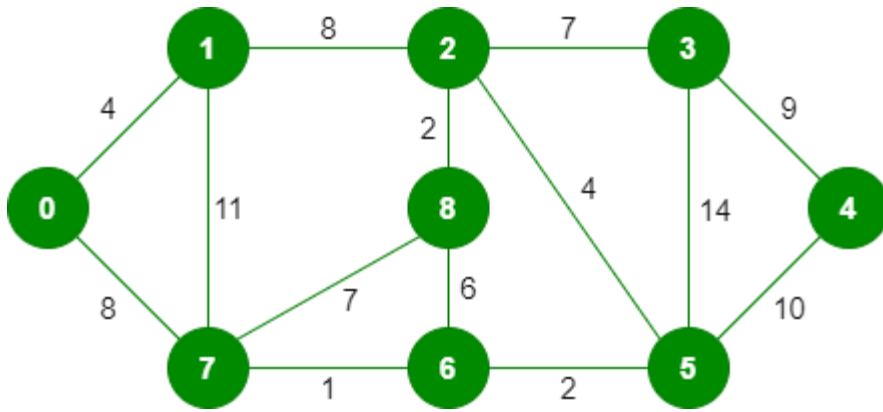
- a) Construct binary search tree of : 50, 15, 62, 5, 20, 58, 91, 3, 8, 37, 60, 24  
 Write down in order traversal, pre order traversal, post order traversal. (7)  
 b) Write any three BFS traversal and any three DFS traversal (7)



**Q-8 Attempt all questions (14)**

- a) Find MST using Krushkal's algorithm. (7)





b) Find MST using Prim's algorithm.

(7)

