學號：　　姓名：

國立中山大學 99 學年度第 2 學期資訊工程學系資工數學

期末考

2011/06/15

(1). Using Kruskal's algorithm to find Minimum Spanning Tree in Fig.(a)&Fig.(b)? (10%)

(2) Kruskal's algorithm time complexity? (5%)

(3). Using Prim's algorithm to find Minimum Spanning Tree in Fig.(a)&Fig.(b)? (10%)

(4) Prim's algorithm time complexity? (5%)

(5). Using Dijkstra's algorithm to find shortest path from A to F in Fig.(c)? (10%)

(6) Dijkstra's algorithm time complexity? (5%)

(7) Whether has Euler path (enum) in Fig.(d)? (5%)

(8) Whether has Hamiltonian path (enum) in Fig.(d)? (5%)

(9) Find adjacency matrix in Fig.(e)? (5%)

(10) Find adjacency matrix in Fig.(f)? (5%)

(11) Given a graph，if s is source node，using Bellman algorithm
solving S to anyone node shortest path length in Fig.(g)? (10%)

(12) Solving BFS in Fig.(h)? (10%)

(13) Solving DFS in Fig.(h)? (10%)

(14)BFS &DFS search time complexity? (5%)

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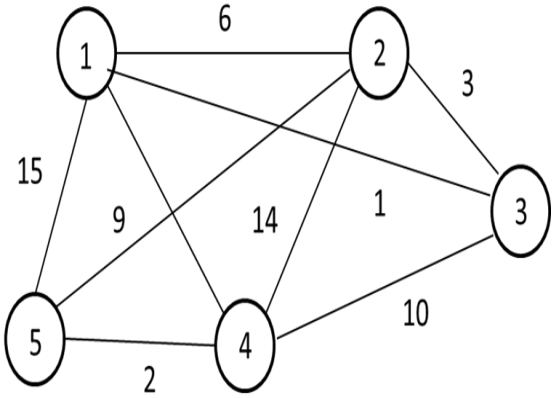

Fig.(a)

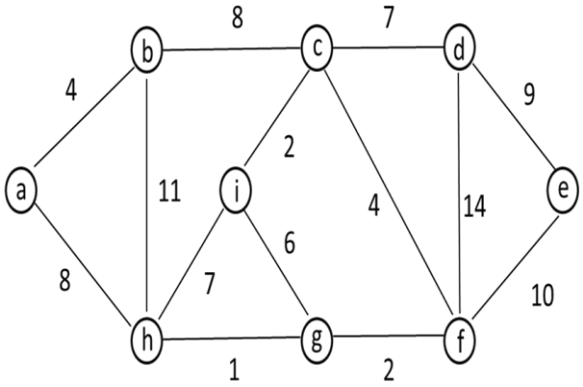

Fig.(b)

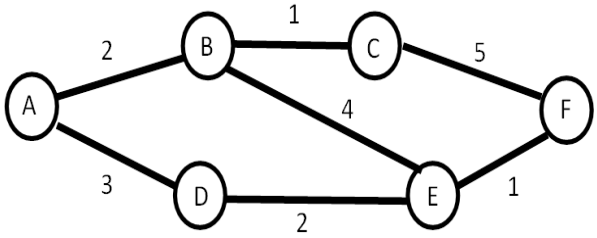

Fig.(c)

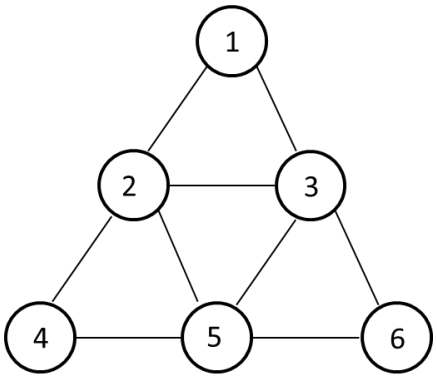

Fig.(d)

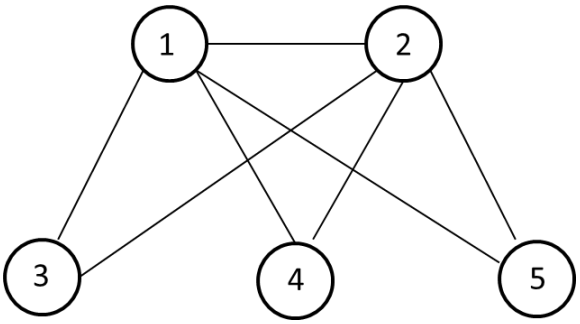

Fig.(e)

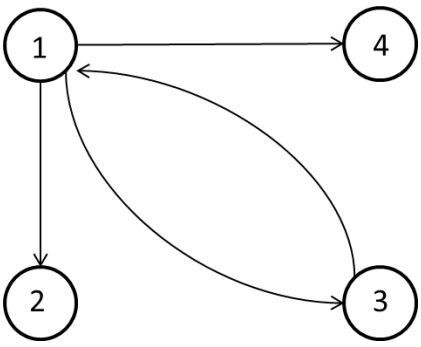

Fig.(f)

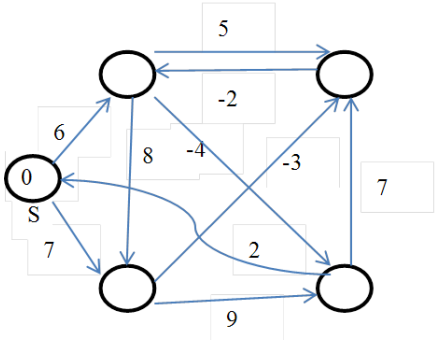

Fig.(g)

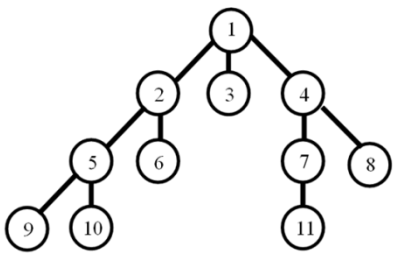

Fig.(h)