# Home Assignment 2

## CSE 2217/CSI 227 (A & D): Algorithms/Data Structure and Algorithms II

**Total marks: 30**                                               **Time: 7 days**
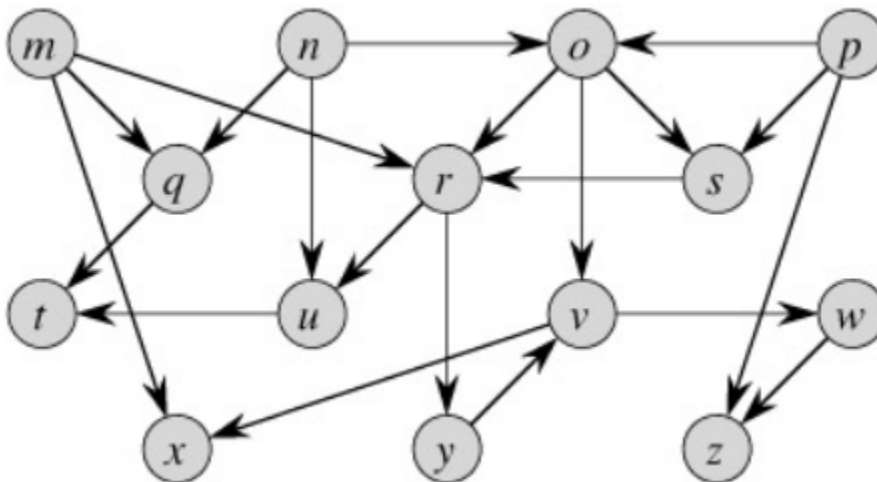
## Answer all the questions below. Show full simulation/tabulation wherever necessary

1. Read the "*DP_Coin_Change_Generalized*" pdf and solve the following question [10]
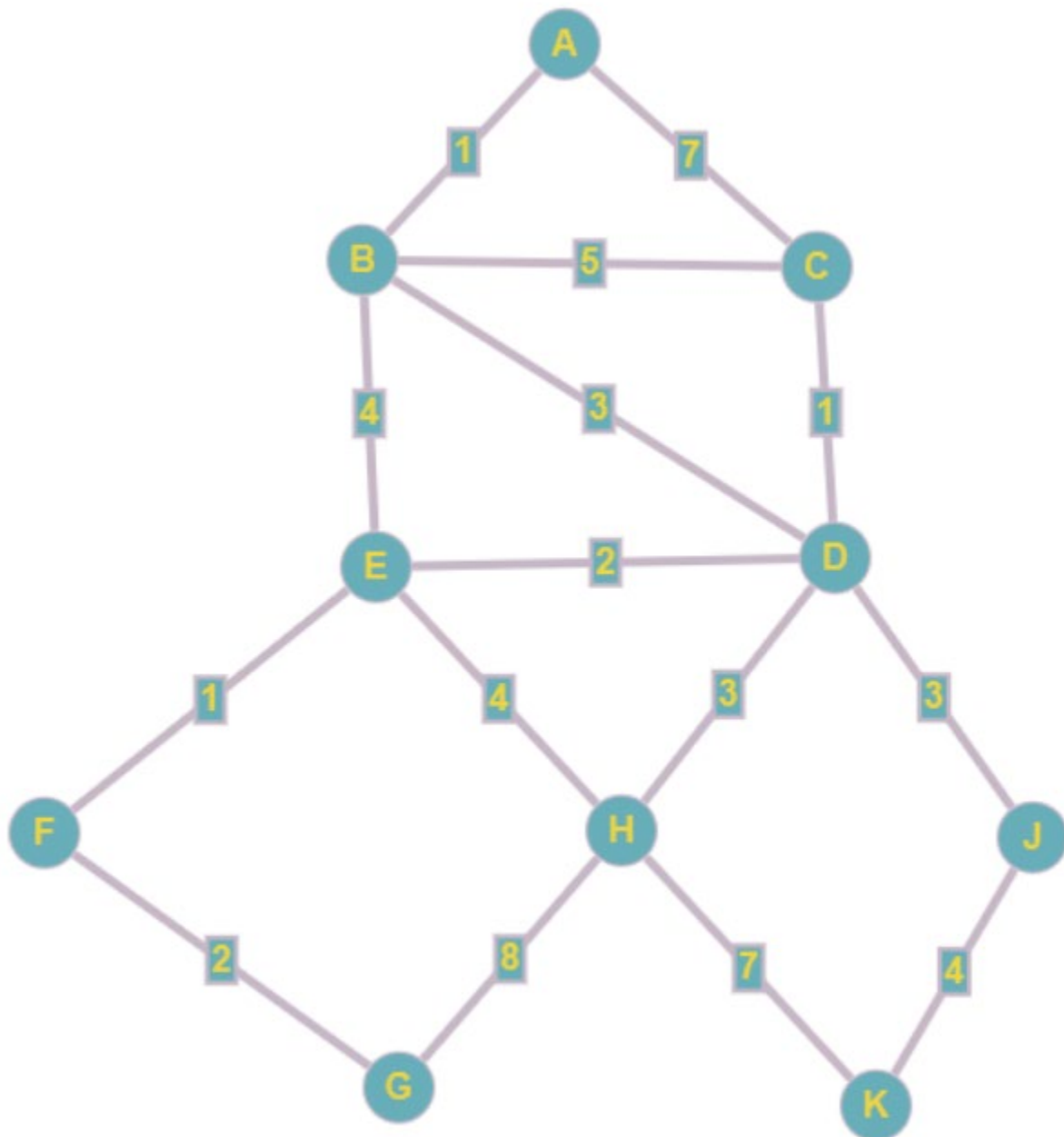
   a. Amount: 10

      Coins: <2,4,6>

2. Examine the following graph and solve as directed [show full process with queue/stack/one-one-by removal as applicable]                [10]



   a. BFS tree
   b. DFS tree
   c. Topological sort

<Please turn over to the next page>

3. Examine the following graph and solve as directed. [Show full process]    [10]



a. Kruskal's Minimum Spanning Tree
b. Prim's Minimum Spanning Tree