For the given directed, edge-weighted input graph:

D	C	10
A	B	10
D	A	12
A	C	15
C	D	30
B	C	20
C	F	45
D	E	35
E	F	25

a. Draw the graph that corresponds to the given input. **[7 points]**

b. Draw the adjacency matrix representation for this graph. **[5 points]**

c. Draw the adjacency list representation for this graph. **[5 points]**

d. Which algorithm would you use to compute the shortest path between node A and all other nodes in the graph. Use that algorithm to <u>compute the shortest path from node A to all other nodes</u> (show the steps involved in computing the shortest paths) and write down the sequence of nodes traversed by the shortest paths. **[10 points]**