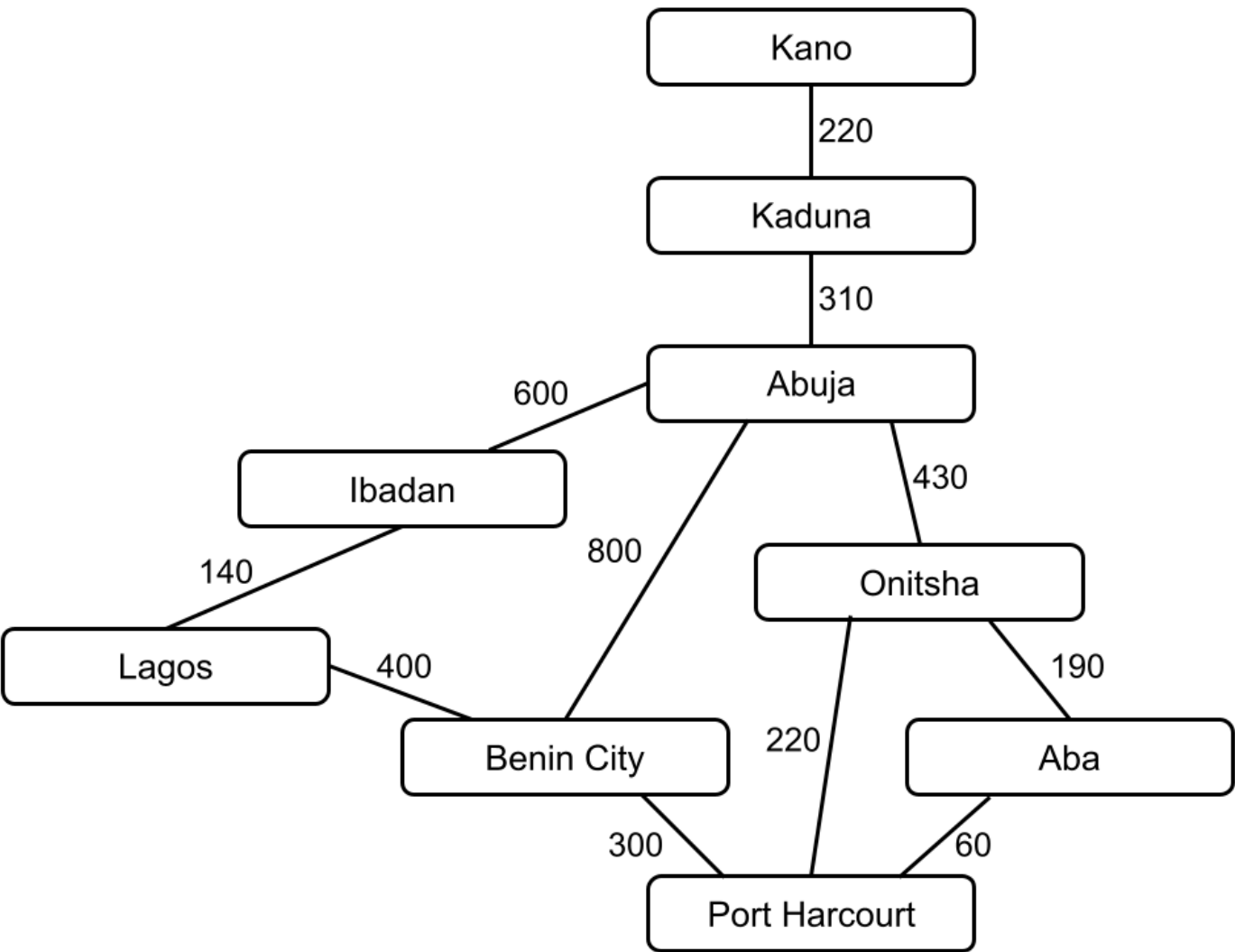


Week 6 Quiz

Q1.

Consider the following graph:



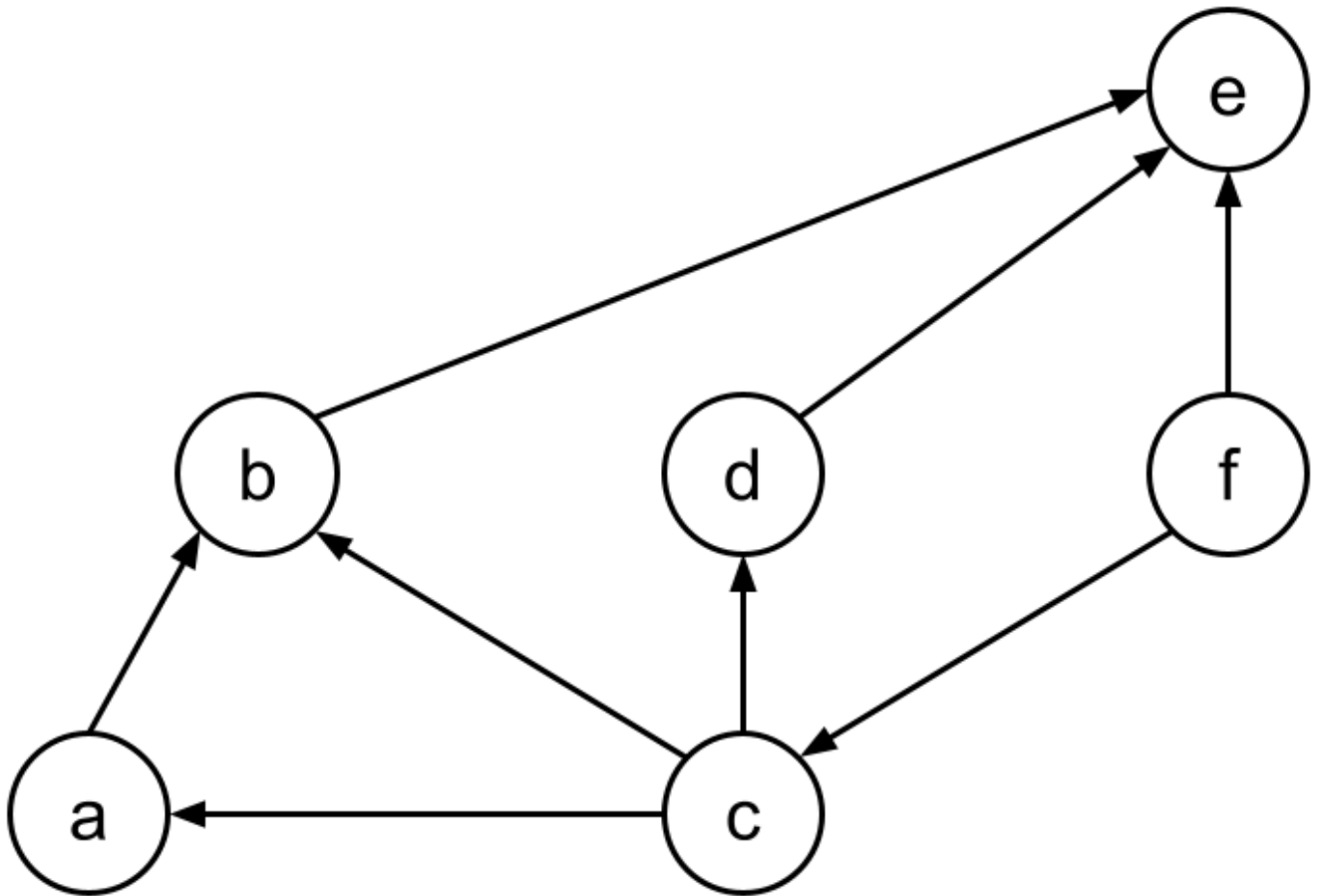
What's the sequence of cities visited in a depth-first traversal from Kano?

Assume that if there are multiple options for the next neighbor (city) to visit, the unvisited neighbors are visited in order by distance, so that the closest neighbor is visited first first, the second-closest neighbor second, etc.

- A. Kano, Kaduna, Abuja, Onitsha, Aba, Port Harcourt, Benin City, Lagos, Ibadan
- B. Kano, Kaduna, Abuja, Onitsha, Port Harcourt, Aba, Benin City, Lagos, Ibadan
- C. Kano, Kaduna, Abuja, Ibadan, Lagos, Benin City, Port Harcourt, Aba, Onitsha
- D. Kano, Kaduna, Abuja, Ibadan, Lagos, Benin City, Port Harcourt, Onitsha, Aba

Q2.

Consider the following DAG:



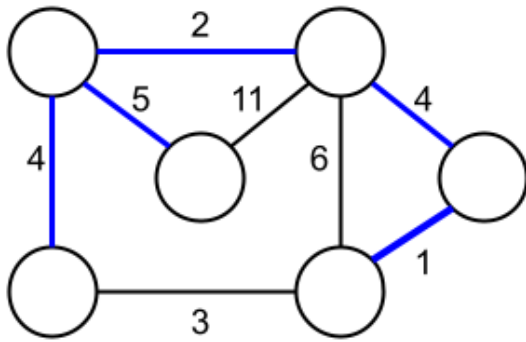
Which of the following is a valid topological sort of the DAG?

- A. f, c, d, a, b, e
- B. a, b, c, d, e, f
- C. e, f, d, b, a, c
- D. e, b, d, f, a, c

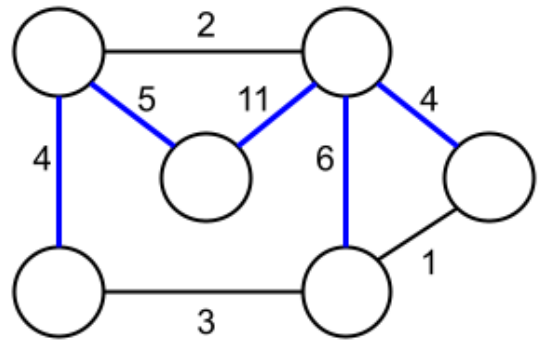
Q3.

Consider the following spanning trees on a graph:

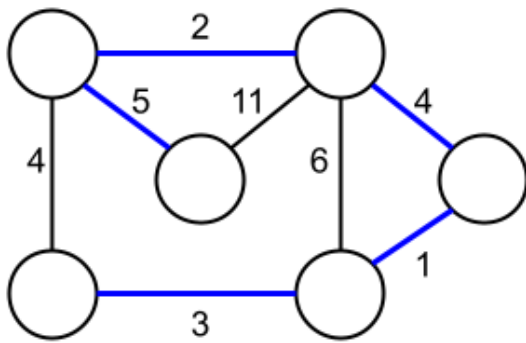
A.



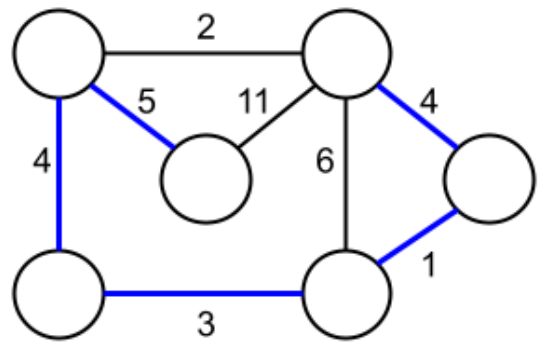
B.



C.



D.



Which of these is a minimum spanning tree?

- A. A
- B. B
- C. C
- D. D