Assignment 5

Due: Tue. Oct 9, 2012.

Question 1
Given \( R = \{A, B, C\} \), and the set of FDs \( A \rightarrow B, A \rightarrow C \).
(a) Find the candidate keys of \( R \).
(b) Is \( R \) in BCNF? Why?

Question 2
Given \( R = \{A, B, C\} \), and the set of FDs \( A \rightarrow B, B \rightarrow C \).
(a) Find the candidate keys of \( R \).
(b) Is \( R \) in BCNF? Why?

Question 3
Given \( R = \{A, B, C, D\} \), and the set of FDs \( A \rightarrow BC, B \rightarrow D \).
(a) Find the candidate keys of \( R \).
(b) Is \( R \) in BCNF? Why?

Question 4
Given \( R = \{A, B, C, D\} \), and the set of FDs \( A \rightarrow BC \).
(a) Find the candidate keys of \( R \).
(b) Is \( R \) in BCNF? Why?

Question 5
Given \( R = \{A, B, C\} \), and the set of FDs \( AB \rightarrow C, C \rightarrow B \).
(a) Find the candidate keys of \( R \).
(b) Is \( R \) in BCNF? Why?