

COMP 353 – Quiz 7

1. Relation $S(A, B, C)$ with FD's $\{AB \rightarrow C, BC \rightarrow A, AC \rightarrow B\}$ is in BCNF.

(a). True

(b). False

2. Every relation that is in 3NF is also in BCNF.

(a). True

(b). False

3. Given a relation schema $R(A, B, C)$, the following satisfies the definition of decomposition for R .

$$\underline{R} = \{R_1(A), R_2(B), R_3(C)\}$$

(a). True

(b). False

4. Consider $R(A, B, C)$ with FD's: $\{A \rightarrow B, B \rightarrow C, A \rightarrow C\}$.
The decomposition $\underline{R} = \{R_1(A, B), R_2(B, C)\}$ is dependency-preserving.

(a). True

(b). False

5. Let $S(A, B, C)$ be a relation with the FD: $\emptyset \rightarrow ABC$. Which of the following is correct?

(a). S is not in 3NF

(b). S is in 3NF but not BCNF

(c). S is in BCNF