

COMP 3005 – Assignment 5 (Part 2)

NAME: Nem Zutkovic

STUDENT#: 101085982

1A. $A \rightarrow B$ will not hold, because $\langle 10, b1 \rangle$ and $\langle 10, b2 \rangle$ cause the violation.

1B. $B \rightarrow C$ holds.

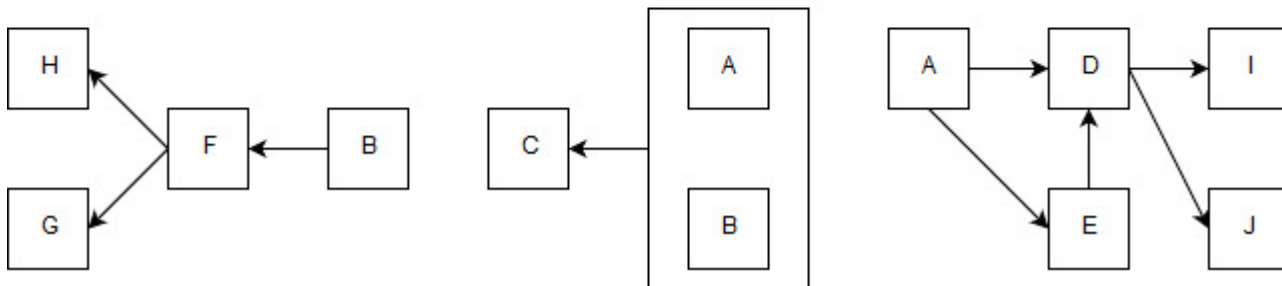
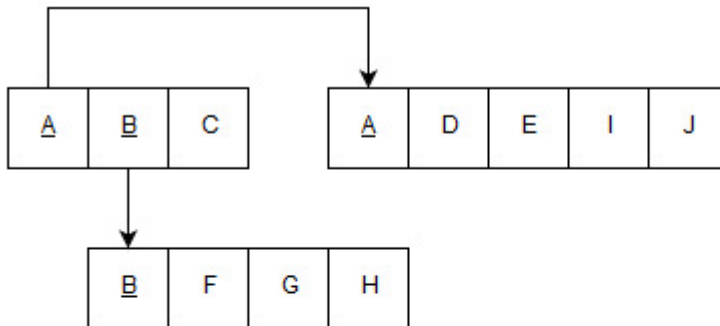
1C. $C \rightarrow B$ will not hold, because $\langle c1, b4 \rangle$ and $\langle c1, b1 \rangle$ cause the violation.

1D. $B \rightarrow A$ will not hold because $\langle b1, 10 \rangle$, $\langle b1, 13 \rangle$, $\langle b3, 12 \rangle$ and $\langle b3, 14 \rangle$ cause violations.

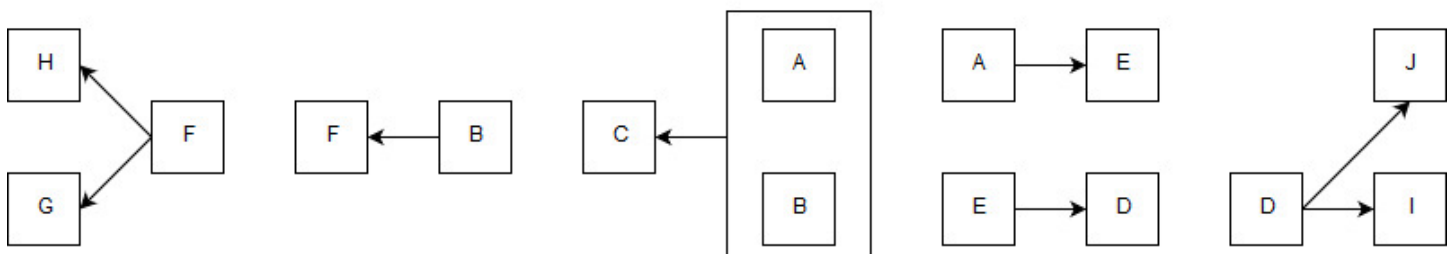
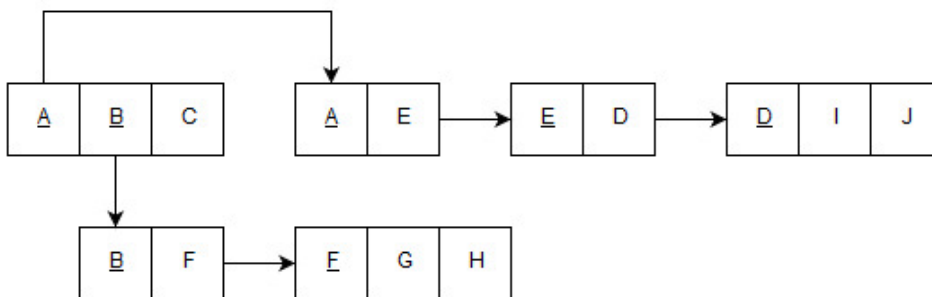
1E. $C \rightarrow A$ will not hold because $\langle c1, 10 \rangle$, $\langle c1, 11 \rangle$, $\langle c1, 13 \rangle$, $\langle c4, 12 \rangle$ and $\langle c4, 14 \rangle$ cause violations.

2A. The key is **AB**.

2B.

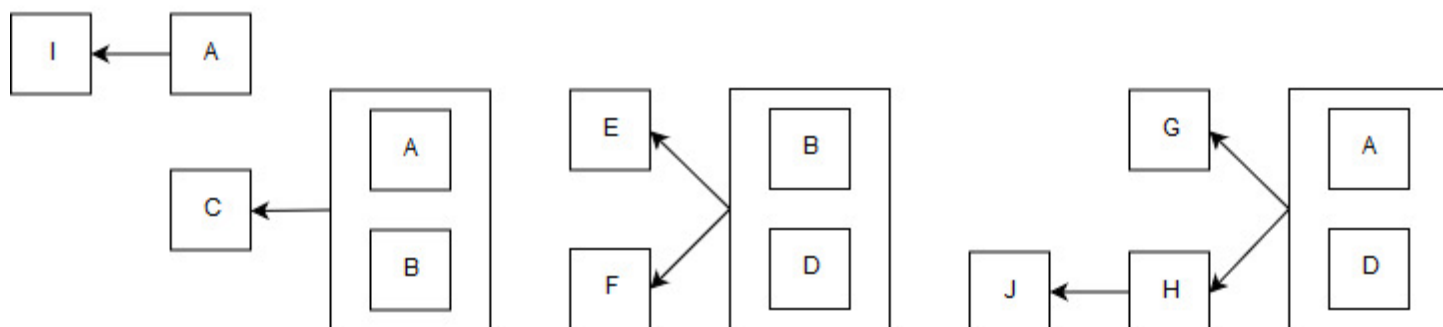
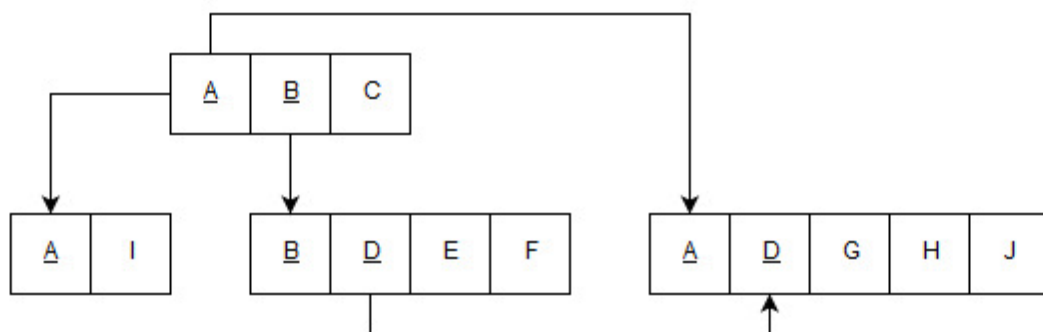


2C.

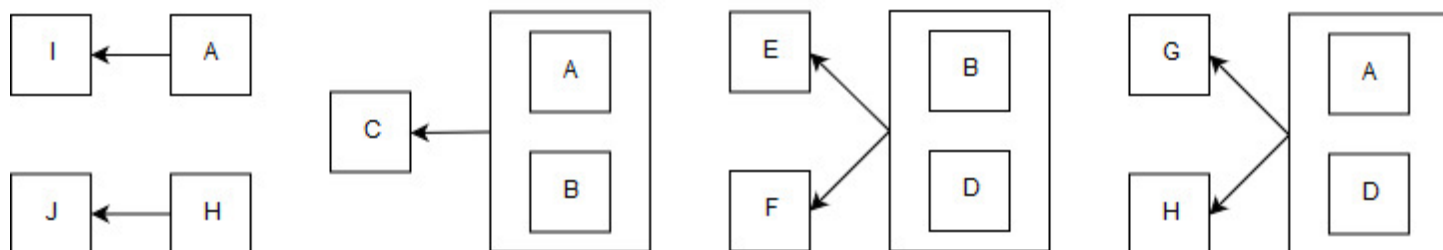
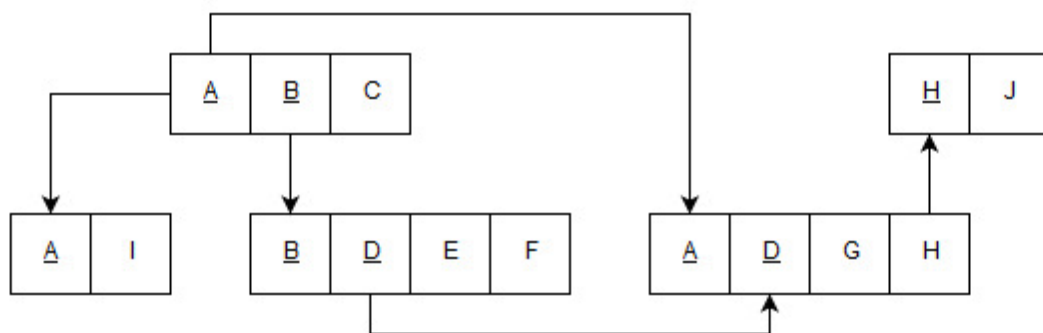


3A. The key is **ABD**.

3B.



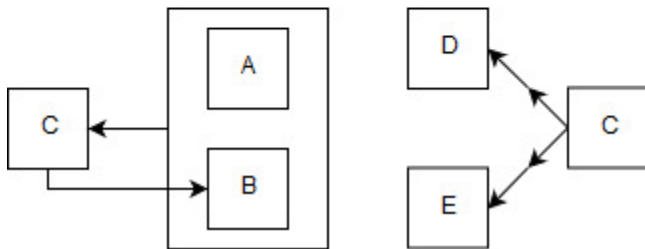
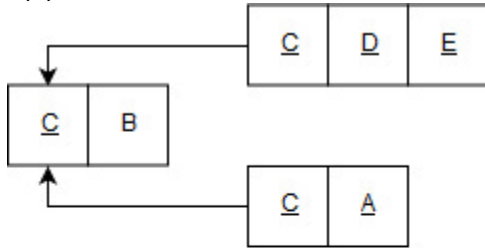
3C.



4(1). The key is **ACDE**.

4(2). The highest normal form for this relation is **Third Normal Form**.

4(3).



4(5).

