Consider a relation with schema R(A, B, C, D, E) and FD’s AB->C, DE->C, and B->D, do the

following:

1. Indicate all the BCNF violations among the given FD’s?

Violations:

AB -> C

DE -> C

B -> D

1. Decompose the relations, as necessary, into a collection of relations that are in BCNF.

Original = R(A,B,C,D,E)

Extract B->D

R1(B,D)

LeftOver = R(A,B,C,E)

Extract AB->C

R2(A,B,C)

LeftOver = R(A,B,E)

End Result:

R1(B,D)

R2(A,B,C)

R3(A,B,E)