

1. Find a minimal cover for the following FD set

FDs = { $FGH \rightarrow I$, $FI \rightarrow H$, $DI \rightarrow G$, $DH \rightarrow EG$, $I \rightarrow F$, $H \rightarrow F$ }

2. Use the universal table and the **Minimal Cover** FD shown below to answer parts a, b and c.

Universal Table BCDFGH

Minimal cover FD set { $BG \rightarrow C$, $G \rightarrow F$, $C \rightarrow H$, $C \rightarrow G$, $F \rightarrow D$ }

a. Find a key for the universal table.

b. Is the decomposition of BCDFGH into GFD and BGCH lossless? Justify your answer.

c. Use 3NF synthesis to create a set of 3NF tables.