## Database Design, CSCI 340, Spring 2016 Quiz 3, March 28

1. Consider the following relation with the given FDs and composite key.

| Ġ | Pickkups Pickkups |           |         |            |          |           |        |         |  |  |  |
|---|-------------------|-----------|---------|------------|----------|-----------|--------|---------|--|--|--|
|   | ID -              | fName -   | IName - | day -      | time 🔻   | license 🔻 | make 🔻 | model 🔻 |  |  |  |
|   | 3                 | Josh      | Holiday | 10/22/2015 | 8:00 AM  | MT 53445  | Toyota | Prius   |  |  |  |
|   | 3                 | Josh      | Holiday | 10/22/2015 | 10:00 AM | MT 53445  | Toyota | Prius   |  |  |  |
|   | 3                 | Josh      | Holiday | 10/25/2015 | 10:00 AM | MT 53445  | Toyota | Prius   |  |  |  |
|   |                   | Jeannie   | Potter  | 10/31/2015 | 3:00 AM  | MT 53445  | Toyota | Prius   |  |  |  |
|   | 3                 | Josh      | Holiday | 10/31/2015 | 7:00 AM  | 51-8875   | Ford   | Ranger  |  |  |  |
|   | 3                 | Josh      | Holiday | 10/31/2015 | 9:00 AM  | 51-8875   | Ford   | Ranger  |  |  |  |
|   | 3                 | Josh      | Holiday | 10/31/2015 | 11:00 AM | 51-8875   | Ford   | Ranger  |  |  |  |
|   |                   | 2 Jeannie | Potter  | 10/22/2015 | 8:00 AM  | 51-8875   | Ford   | Ranger  |  |  |  |
|   | 2                 | Robert    | Owen    | 10/22/2015 | 10:00 AM | MT1245A   | Toyota | Camry   |  |  |  |
|   | 1                 | Josh      | Potter  | 10/25/2015 | 9:00 AM  | MT1245A   | Toyota | Camry   |  |  |  |
|   | 1                 | Josh      | Potter  | 10/25/2015 | 11:00 AM | MT1245A   | Toyota | Camry   |  |  |  |

ID  $\rightarrow$  fName, lNane license  $\rightarrow$  make, model ID, day  $\rightarrow$  license

Key for this relation: ID, day, time

a. If this relation is not already in BCNF, normalize it to a set of relations which are in BCNF. (10 pts.)

| b. | Show each of the tables in your normalized design and include all above. | data from the sample (5 pts.) |  |  |
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