5. Consider the following relation schema:

CAR_SALE($Car\#$, $Date\_Sold$, $SalesPerson\#$, $Commission\%$, $Discount\_Amt$),

where $\{Car\#, SalesPerson\#\}$ is the primary key (we assume that a car may be sold by multiple salespeople). Assume the following additional dependencies:

$$Date\_Sold \rightarrow Discount\_Amt,$$
$$SalesPerson\# \rightarrow Commission\%.$$

(a) Based on the primary key, determine whether this relation is in 1NF, 2NF, 3NF. [9]

(b) Perform any normalisation steps required to bring it into 3NF. [16]

Total mark for this question: 25