**Questions 34**

**Candidate Key 1:**

Given KL -> N, which means KL -> KLN

Since L->M, L -> LM

Therefore, KL -> KLMN (Candidate key)

**Candidate Key 2:**

Given KM -> LN, which means KM -> KLMN

**Questions 35**

1. Since ABC -> ABCDE, and B->D, having B->D violates the normal form of 2NF. B->D has a partial dependency. Only ABC should determine D. Since not in 2NF, it is not in 3NF. 2NF is a requirement of 3NF.
2. **2NF Decomposition:** Every nonprime attribute in R is fully dependent on every candidate key of R. There must not be any partial dependencies, so in order to keep B->D, ABC cannot yield D. The minimum cover would be as follows:
   * B->D
   * ABC->E
   * Therefore ABC -> ABCDE

**3NF Decomposition:**

* + Since ABC is a super key of R, ABC -> E is fine
  + However, B -> D is not a trivial, a super key, or a prime attribute of R. In order to get fully into 3NF, we must remove D, which the final functional dependency is ABC -> E.