Q6.

Diagram

Description automatically generated

Q7.

The key to the relation is (PFCODE, DEPT).

Partial functional dependency because,

DEPT -> HEAD.

So,

R1 (PFCODE, DEPT, TIME)

R2(DEPT, HEAD)

R1 is not in 4NF, because of multivalued dependency

PFCODE -> DEPT

Therefore, the decompositions are,

R1(PFCODE, DEPT) ---- F1={PFCODE -> DEPT}

R2(PFCODE, TIME)

R3(DEPT, HEAD) ------ F2= {DEPT -> HEAD}