Q4

3NF:

↳ Should be in 2NF

↳ Not contain any transitive partial dependency

↳ used to achieve integrity

Also it should satisfy one of the conditions for the function dependency C → D:

- C should be a superkey and
- D should be a prime attribute, i.e D should be a part of the candidate key

BCNF:

↳ Should be in 3NF

↳ for functional dependency X → Y, X is a the superkey of the table

3NF	BCNF
• redundancy is high in 3NF	• Redundancy is low in BCNF
• In this preservation of all functional dependencies	• In BCNF there may or may not be preservation of all functional dependencies
• comparitively easier to achieve	• It is difficult to achieve
• lossless decomposition can be achieved by 3NF	• lossless decompostion is hard to achieve in BCNF
• less stronger than BCNF	• Comparitively more stronger than 3NF
• In 3NF there should be no transitive dependency that is no non prime attribute should be transitively dependent on the candidate key	• In BCNF for any relation A → B, A should be a super key of relation.