

a)

FDs:

studentIdnr -> login

login -> studentIdnr

studentIdnr -> studentName

courseCode -> courseName

courseCode -> credits

courseCode -> capacity

courseCode -> classification

courseCode, studentIdnr -> grade

courseCode, studentIdnr -> position

position, courseCode -> studentIdnr

studentIdnr -> branchName

studentIdnr -> programName

b)

BCNF:

Attributes:

studentIdnr login studentName branchName programName

Functional Dependencies:

studentIdnr -> login , studentName , branchName , programName

login -> studentIdnr

Attributes:

studentIdnr courseCode departmentName

Functional Dependencies:

Attributes:

courseCode courseName credits capacity classification

Functional Dependencies:

courseCode -> courseName , credits , capacity , classification

Attributes:

courseCode studentIdnr position grade

Functional Dependencies:

courseCode -> studentIdnr , position , grade

courseCode -> position , studentIdnr

c)

R(courseCode courseName credits capacity classification)

MVD:

courseCode ->> classification

R1(courseCode,classification), R2(courseCode,courseName credits capacity)