Assignment no. 04 **Date of Submission: 10/6/20204**

Suppose a relational schema R(w x y z), and set of functional dependency as following F : { x ->w, wz-> xy, y-> wxz } Find the canonical cover Fc (Minimal set of functional dependency).
Suppose a relational schema R(P, Q, R, S), and set of functional dependency as following F : { P-> QR, Q-> R, P-> Q, PQ ->R } Find the canonical cover Fc (Minimal set of functional dependency)
Let's suppose we have a set of attributes as S: {W, X, Y, Z} and functional dependencies are: Z -> W Y -> XZ XW -> Y Find a candidate key for above set of functional dependencies.
Let's suppose we have a set of attributes as S: {A, B, C, D, E, F} and functional dependencies are: AB -> C C-> D D -> BE E -> F F -> A Find a candidate key for above set of functional dependencies.

Example: Let's assume there is a company where employees work in more than one department.

EMPLOYEE table:

EMP_ID	EMP_COUNTRY	EMP_DEPT	DEPT_TYPE	EMP_DEPT_NO
264	India	Designing	D394	283
264	India	Testing	D394	300
364	UK	Stores	D283	232
364	UK	Developing	D283	549

In the above table Functional dependencies are as follows:

EMP_ID → EMP_COUNTRY
EMP_DEPT → {DEPT_TYPE, EMP_DEPT_NO}

Candidate key: {EMP-ID, EMP-DEPT}

Check above relation is in BCNF or not.