**Assignment 1 CSIT 4th DBMS.**

1. What are different types of Database users and their roles? Explain the Data independence with example.

2. what are the components of ER diagram? Explain the function of various symbols use in ER diagram. Construct an ER diagram to store data in a library of your college.

3. What is difference between logical data independence and physical data independence?

4. Explain Relationship and Relationship sets with example.

5. Retrieve the TName, SName, SPhone for "ABC" school using SQL from given relation as below.

        TEACHER(TID, TName, TAddress, TQualification)

        SCHOOL(SID, SName, SAddress, SPhone)

        SCHOOL\_TEACHER(SID, TID, No\_of Period).

6. What are the advantages of using Database Management System over traditional filing system? Explain different data models with example.

7. Explain the use of primary and foreign key in DBMS with example. What is the role of foreign key?

8. Define data independence. Explain three-schema architecture.

9.Consider a banking database with three labels and primary key underlined as given below:

Customer (CustomerID , CustomerName, Address, Phone, Email)

Borrows (CustomerID, LoanNumber )

Loan ( LoanNumber , LoanType, Amount )

10. Write both relational algebra and SQL queries:

1. To display name of all customers who live in “Lalitpur” in ascending order of name.
2. To count total number of customers having loan at the bank.
3. To find name of those customers who have loan amount greater than or equal to 500000.
4. To find average loan amount of each accoun’t type.

11. What do you mean by Schema and Instance in DBMS? Explain both with examples.