MSD Sanjeevani Public School, Mohan Garden
Subject- Computer Science (with Python)
Class-12th (Non-Med)
Assignment-5 (from Ch12: MySQL Revision Tour)

Q1	**What do you mean by the term Database system?**
Ans	Database System: Database system is a computer based record keeping system. The collection of data referred to as database, contains information about one particular entity e.g. students database contains student's related data like marks, personal details, attendance, fee details etc.
Q2	**What are advantages of Database system?**
Ans	1. Reduces data redundancy (data duplication). 2. Control data inconsistency (different data / variation in data). 3. Sharing of data. 4. Enforce standards
Q3	**Explain SQL Terms used in Relational Model.**
	1. Domain: This is pool of values from which the actual values appearing in a given column. 2. Relation : A table storing logically related data; data must be atomic in a cell; all rows of the table are distinct; ordering of rows and columns is immaterial (does not matter). 3. Tuple : A row of a relation is generally referred to as a tuple or record. 4. Alternate key: a candidate key that is not primary key is called an alternate key. 5. Attribute: A column of a relation is generally referred to as an attribute or Field. 6. Degree: Total number of attributes in a relation. 7. Cardinality: Total number of rows/records in relation (headings not included.) 8. Primary key: Set of one or more attributes than can uniquely identify Tuples within relation. 9. Candidate key: all attribute combinations inside a relation that can server as primary key are candidate keys as these are candidates for primary key position. 10. Foreign key :A non-key (not a primary key) attribute, whose values are derived from the primary key of some other table, is known as foreign key in its current table.
Q4	**Explain different types of SQL commands?**
Ans	SQL statements can be divided into two main categories: 1. Data Definition Language (DDL) : are used to perform *task related*

	to data definition.
	   – Creating data (e.g. create table command)
	   – Altering data(e.g. alter table command)
	   – Deleting data(e.g. drop table command)
	  2. Data Manipulation Language: are used to perform task related to data manipulation like:
	   – Retrieval (select…from.. command)
	   – Insertion (insert…into… command)
	   – Deletion(delete …from ..command)
	   – Modifications(update … set .. Command)

Q5	**What do you mean by data type? List types of data in MySQL?**

Ans	Data type means to identify type of data (number, text, date, time…) and associated operations. Commonly used data types in SQL are:
	  1. _Char/ VarChar [for storing text]_
	  2. _Int /Float /Decimal [for storing numbers]_
	  3. _Date [for storing date in yyyy-mm-dd form]_
	  4. _Time[for storing time in [HH:MM:SS form]_

Q6	**Which command is used to access database/open database?**
Ans	Before applying any database command you need to open existing database using: Use <database>; e.g. Use XYZ; But if don't have database already in MySQL then you must create it before using it using: Create database <database name> e.g. create database XYZ;
Q7	**How we can create table in MySQL?**
Ans	Tables can be created in SQL using Create table (DDL) command but database must be opened using _use_ command when a table is created, [its columns names, data types and sizes] are specified for each column in table. And table must have at least one column. Syntax is : Create table <table name> (<col-name> <type> [<size>],……);
Q8	**How we can insert data record/row in a table?**

Ans	The row/record can be added to relations using insert command like:
	    Insert into <table-name> [<column-name>…]
	    Values (<value>,……);
	    You can use null for blank data entries for any type of data.

Q9	Write General form of Select command?

Ans	1. General form of Select command:
	    Select what_to select
	    From which_table
	    Where conditions_to_satisfy;