Assignment 1 (database)

Q1: What are the various constraints in SQL? Exaplin any five.

ANS : 1NOT NULL constraints prevent null values from being entered into a column.  
 *2 :Unique constraints* ensure that the values in a set of columns are unique and not null for all rows in the table. The columns specified in a unique constraint must be defined as NOT NULL. The database manager uses a unique index to enforce the uniqueness of the key during changes to the columns of the unique constraint.

3.You can use primary key and foreign key constraints to define relationships between tables.

**4**  
A *check constraint* (also referred to as a *table check constraint*) is a database rule that specifies the values allowed in one or more columns of every row of a table. Specifying check constraints is done through a restricted form of a search condition.

**5**  
*Foreign key constraints* (also known as *referential constraints* or *referential integrity constraints*) enable definition of required relationships between and within tables.

Q2: What is Pattern matching in SQL and how it is done?

ANS :SQL pattern matching allows you to search for patterns in data if you don't know the exact word or phrase you are seeking. This kind of SQL query uses wildcard characters to match a pattern, rather than specifying it exactly. For example, you can use the wildcard "C%" to match any string beginning with a capital C.

Q3: What is a checkpoint and when does it occur?

ANS : A checkpoint creates a known good point from which the SQL Server Database Engine can start applying changes contained in the log during recovery after an unexpected shutdown or crash.

Q4: What is E-R model?

Ans : An Entity–relationship model (ER model) describes the structure of a database with the help of a diagram, which is known as Entity Relationship Diagram (ER Diagram). An ER model is a design or blueprint of a database that can later be implemented as a database.

Q5: What is denormalization in DBMS?

Ans :Denormalization is a strategy used on a previousl normalized database to increase performance. In computing**,**denormalization is the process of trying to improve the read performance of a database, at the expense of losing some write performance, by adding redundant copies of data or by grouping data.

Q6: What is normalization in DBMS?

Ans : Normalization is a systematic approach of decomposing tables to eliminate data redundancy(repetition) and undesirable characteristics like Insertion, Update and Deletion Anomalies. It is a multi-step process that puts data into tabular form, removing duplicated data from the relation tables.