**1. What is DBMS ?**

The database management system is a collection of programs that enables user to store, retrieve, update and delete information from a database.

**2. What is RDBMS ?**

Relational Database Management system (RDBMS) is a database management system (DBMS) that is based on the relational model. Data from relational database can be accessed or reassembled in many different ways without having to reorganize the database tables. Data from relational database can be accessed using an API , Structured Query Language (SQL).

**3. What is SQL ?**

Structured Query Language(SQL) is a language designed specifically for communicating with databases. SQL is an ANSI (American National Standards Institute) standard.

**1. What is cardinality?**

Thinking mathematically, it is the number of elements in a set. Thinking in the database world, cardinality has to do with the counts in a relationship, one-to-one, one-to-many, or many-to-many.

**2.What are the elements of an ERD?**

The three elements include the entities for which someone is seeking information, the attributes of those entities, and the relationships between the entities.

***3.Describe the differences in the first through fifth normalization forms.***

Database candidates should be familiar with most if not all of these without needing to lookup definitions. Some of the other normalization forms are less commonly known/used, but could theoretically be asked. Knowing the differences between second and third is probably a good idea.

From Wikipedia, here are their definitions:

* First: The domain of each attribute contains only atomic values, and the value of each attribute contains only a single value from that domain.
* Second: No non-prime attribute in the table is functionally dependent on a proper subset of any candidate key.
* Third: Every non-prime attribute is non-transitively dependent on every candidate key in the table. The attributes that do not contribute to the description of the primary key are removed from the table. In other words, no transitive dependency is allowed.
* Fourth: Every non-trivial multivalued dependency in the table is a dependency on a superkey.
* Fifth: Every non-trivial join dependency in the table is implied by the superkeys of the table.

***4.When might someone denormalize their data?***

* Typically done for performance reasons, to reduce the number of table joins. This is not a good idea in a transactional environment as there are inherent data integrity risks or performance risks due to excessive locking to maintain data integrity.
* Questions related to the Unified Modeling Language (UML) or Entity-Relationship Diagrams (ERDs) may also be asked here.

***5. What is the difference between SQL and PL/SQL?***

*PL/SQL is a dialect of SQL that adds procedural features of programming languages in SQL. It was developed by Oracle Corporation in the early 90's to enhance the capabilities of SQL.*

***6. What are various DDL commands in SQL? Give brief description of their purposes.***

*Following are various DDL or Data Definition Language commands in SQL −*

* *CREATE − it creates a new table, a view of a table, or other object in database.*
* *ALTER − it modifies an existing database object, such as a table.*
* *DROP − it deletes an entire table, a view of a table or other object in the database.*

***7.What are various DML commands in SQL? Give brief description of their purposes.***

*Following are various DML or Data Manipulation Language commands in SQL −*

* *SELECT − it retrieves certain records from one or more tables.*
* *INSERT − it creates a record.*
* *UPDATE − it modifies records.*
* *DELETE − it deletes records.*

***8.What are various DCL commands in SQL? Give brief description of their purposes.***

*Following are various DCL or Data Control Language commands in SQL −*

* *GRANT − it gives a privilege to user.*
* *REVOKE − it takes back privileges granted from user.*

*9.* What is the purpose of the condition operators BETWEEN and IN?

The BETWEEN operator displays rows based on a range of values. The IN condition operator checks for values contained in a specific set of values.