DBMS LAB VIVA QUESTIONS

1. What is data?

Data is a collection of information gathered by observations, measurements, research or analysis.

2. What is database?

A database is an electronically stored, systematic collection of data. It can containany type of data, including words, numbers, images, videos, and files.

3. What is DBMS?

Database Management Systems (DBMS) are software systems used to store,retrieve, and run queries on data.

4. What is a Database system?

A database is an organized collection ofstructured information, or data, typicallystored electronically in a computer system.

5. What are the advantages of DBMS?

The advantages of database management include improved data integrity,consistency, and security, efficient data access and sharing, and reduced dataredundancy and inconsistency.

6. What is relational database?

A relational database is a collection of information that organizes data in predefined relationships where data is stored in one or more tables (or "relations") of columns and rows.

7. What is Table?

A table is an arrangement of data in rows and columns, or possibly in a morecomplex structure.

8. What is a Tuple?

A tuple is an ordered sequence of values. The values can be repeated, but theirnumber is always finite.

9. What is Columns?

column or pillar in architecture and structural engineering is a structural element that transmits, through compression, the weight of the structure above to otherstructural elements below.

10.What is a query?

A query is a question or a request for information expressed in a formal manner.

11.What is an Attribute?

A table consists of several records(row), each record can be broken down into several smaller parts of data known as Attributes. For Example Employee table consist of four attributes, ID, Name, Age and Salary.

12. What is Single valued Attributes ?

An attribute, that has a single value for a particular entity. For example, age of a employee entity.

13. What is Multi valued Attributes?

A multivalued attribute of an entity is an attribute that can have more than onevalue associated with the key of the entity. An attributes that may have multiple values for the same entity. For example colors of a car entity.

14. What is Compound /Composite Attribute?

Attribute can be subdivided into two or more other Attribute. For Example, Name can be divided into First name, Middle name and Last name.

15. What is Simple/Atomic Attributes?

The attributes which cannot be divided into smaller subparts are called simple or atomic attributes. For example, age of employee entity

16. What is Stored Attribute?

An attribute, which cannot be derived from other attribute, is known as stored attribute. For example, BirthDate of employee.

17. What is Derived Attribute ?

Attributes derived from other stored attribute. For example age from Date of Birth and Today's date.

18. What is Complex Attributes?

Complex attributes are formed by grouping together the attributes of composite and multi-valued attributes.

19. What is Key Attribute ?

It represents primary key. It is an attribute, that has distinct value for each entity/element in an entity set. For example, Roll number in a Student Entity Type.

20.What is Non Key Attributes ?

These are attributes other than candidate key attributes in a table. For example Firstname is a non key attribute as it does not represent the main characteristics of the entity.

21. What is a primary key?

A primary key is a column whose values uniquely identify every row in a table.

22. What are the conditions for a field to be a primary key?

• No two rows can have the same primary key value.

• Every row must have a primary key value.

• The primary key field cannot be null.

• Value in a primary key column can never be modified or updated, if any
foreign key refers to that primary key.

23. What is a Foreign Key ?

When a "one" table's primary key field is added to a related "many" table in order to create the common field which relates the two tables, it is called a foreign key in the "many" table.

For example, the salary of an employee is stored in salary table. The relation is established via foreign key column "Employee_ID_Ref" which refers"Employee_ID" field in the Employee table.

24. What is Super Key?

A set of attributes (one or more) that collectively identifies an entity in an entityset.

25. What is Candidate Key

A minimal super key is called a candidate key. An entity set may have more than one candidate key.

26. What is a query?

A query with respect to DBMS relates to user commands that are used to interact with a data base. The query language can be classified into data definition language and data manipulation language.

27. Define SQL Insert Statement ?

SQL INSERT statement is used to add rows to a table.

28. Define SQL Update Statement ?

SQL Update is used to update data in a row or set of rows specified in the filter condition.

29. Define SQL Delete Statement ?

SQL Delete is used to delete a row or set of rows specified in the filter condition.

30.What is order by clause?

ORDER BY clause helps to sort the data in either ascending order to descending

31. Define Normalization.

Organized data void of inconsistent dependency and redundancy within a database is called normalization.

32. Enlist the advantages of normalizing database.

Advantages of normalizing database are:

• No duplicate entries

• Saves storage space

• Boasts the query performances.

33. What is Entity?

An entity can be a real-world object, either animate or inanimate, that can be easily identifiable. For example, in a school database, students, teachers, classes, and courses offered can be considered as entities.

34.What is DDL?

DDL stands for Data Definition Language. SQL queries like CREATE, ALTER, DROP and RENAME come under this.

35.What is DML?

DML stands for Data Manipulation Language. SQL queries like SELECT,INSERT and UPDATE come under this.

36.What is DCL?

DCL stands for Data Control Language. SQL queries like GRANT and REVOKE come under this.