QB365 Question Bank Software Study Materials

Introduction to Database Management System Important 2 Marks Questions With Answers (Book Back and Creative)

12th Standard

Computer Applications

Total Marks : 60

2 Marks

30 x 2 = 60

1) Define Data Model and list the types of data model used.

Answer : Data models define how the logical structure a database is modeled. Data models define how data is connected to each other and how they are processed andstored inside the system

Types of Data Model :

1) Hierarchical database model

2) Network model

3) Relational model

4) object oriented database model

2) List few disadvantages of file processing system.

Answer : i). **Data Duplications :** Same data is used be multiple resources for processing, thus created multiple copies of same data wasting the spaces.

ii). **High Maintenance :** Access control and verifying data consistency needs high maintenance cost.

iii). **Security :** Less security provided to the data.

3) Define Single and Multi valued attributes.

Answer : **Single Valued Attribute:** A single valued attribute contains only one value for the attribute and they don't have multiple numbers of values.

Multi Valued Attribute: A multi valued attribute has more than one value for that particular attribute.

4) List any two DDL and DML commands with its Syntax.

Answer : **DDL Commands :**

(i) CREATE :

Syntax : CREATE database database name;

(ii) DROP

Syntax : DROP database databasename;

DML Commands:

(i) INSERT

Syntax: INSERT INTO table name (column 1, column 2, column 3) VALUES (value 1, value 2, value 3);

(ii) UPDATE

Syntax: UPDATE tablename

SET column 1 = "new value"

Where column2="value2";

5) What are the ACID properties?

Answer : **ACID Properties :**

(i) The acronym stands for Atomicity, Consistency, Isolation and Durability.

(ii) Atomicity follows the thumb rule "All (or) Nothing" while updating the data in database for the user performing the update operation.

(iii) Consistency ensures that the changes in data value to be constant at any given instance. Isolation property is needed during concurrent transaction.

(iv) Durability is defined as the system is ability to recover all committed transactions during the failure of storage or the system

6) Which command is used to make permanent changes done by a transaction?

Answer : COMMIT Command is used to make permanent changes done by transaction.

7) What is view in SQL?

Answer : (i) A set of stored queries is known as view in SQL.

(ii) A View contains rows and columns just like a real table.

8) Write the difference between SQL and MySQL

Answer :

S.No	SQL	MySQL
1.	SQL is a structured query language.	MySQL is a database software.
2.	SQL is used to query and operate a database system.	MySQL allows data handling, storing, modifying, deleting etc.

9) What is Relationship and List its types.

Answer : In ER Model, relationship exits between two entities.

Types :

(i) one-to-one Relationship,

(ii) one-to-many Relationship,

(iii) many-to-many Relationship.

10) State few advantages of Relational databases.

Answer : Advantages:

(i) High Availability

(ii) High Performance

(iii) Robust Transactions and Support

(iv) Ease of Management

(v) Less Cost

11) Write the types of SQL commands

Answer : (i) Data Definition Language (DDL)

(ii) Data Manipulation Language (DML)

(iii) Data Query Language (DQL)

(iv) Transaction Control Language (TCL)

(v) Data Control Language (DCL)

12) What is the purpose of JOIN Clause?

Answer : (i) When we have to select data from more than 2 tables SQL JOIN clause is used.

(ii) Retrieves data from two or more tables, by referendnq columns in the tables that hold identical values

13) What is XAMPP?

Answer : (i) XAMPP is a free and open source package.

(ii) It was developed by Apache.

(iii) It is a software platform for MySQL, PHP and Peri programming languages.

14) Write about Concurrency Control and Locking

Answer : 1. It is the DBMS mechanism used for data sharing.

2. When the same data is shared among multiple users, proper access control is needed and privilege of changing the applications is controlled through Locking.

15) What is the difference between Heavy databases and Light databases?

Answer : (i) Heavy Databases did not meet out the network issues efficiently.

(ii) Light databases were able to handle all the issues raised by the network.

16) What does a PHPMYADMIN generate?

Answer : 1. PHPMYADMIN generate live charts for monitoring MYSQL server activities like connections, processes and memory usage.

2. It also helps in making the complex queries easier.

17) What is a sub query?

Answer : 1. SQL query is written within a main Query. This is called as Nested Inner/Sub Query.

2. The sub query is executed first and the results of sub query are used as the condition for main query.

18) Differentiate Strong Entity and Weak Entity

Answer :

Strong Entity	Weak Entity
It does not depend on other entities.	It is dependent on other entities.
It has primary key.	It doesn't have any primary key.
It is represented by single rectangle.	It is represented by double rectangle.

19) What does the basic RDBMS concept includes?

Answer : The basic RDBMS concept includes Database Tables, Tuple, Attribute, Schema and Key which are discussed in RDBMS Jargons

20) What is DBMS?

Answer : "A database management system (DBMS) is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create retrieve, update and manage data".

21) What type of data is stored in a database?

Answer : In a database, we would be grouping only related data together and storing them under one groups name called table. This helps in identifying which data is stored where and under what name.

22) Write about the two terminologies defined in relational model.

Answer : Relational model is defined with two terminologies Instance and Schema.
Instance: A table consisting of rows and columns.
Schema: Specifies the structure including name and type of each column.

23) What is meant by Tuple?

Answer : A single entry in a table is called as Row or Record or Tuple. Set of related data's are represented in a row or tuple. The horizontal entity in a table is known as Record or row.

24) Differentiate simple and composite attributes.

Answer :

Simple attributes	Composite attributes
The simple attributes cannot be separated, it will be having a single value for their entity.	The composite attributes can be subdivided into simple attributes without change the meaning of that attribute.

25) Write the different type of entity.

Answer : Types of Entity
(i) Strong Entity
(ii) Weak Entity
(iii) Entity Instance

26) What is degree of a relationship?

Answer : The number of entity types involved is known as Degree of relationship, ONe-Unary, Two- Binary, Three-Ternary.

27) What does the ER diagram represents?

Answer : ER Diagram presents data visually on how they are related to each other. This model follows separate notations for representing data into entities, attributes and relationship between the entities.

28) What are the three major parts that forms a database?

Answer : The three major parts that forms a database are Tables, Queries and Views.

29) What is SQL?

Answer : SQL- Structured Query Language is a standard language used for accessing and manipulating databases. It is declared as standard by American National Standards Institute (ANSI) and International Organization for Standardization (ISO) in 1986 and 1987 respectively.

30) What is backup?

Answer : Backup is a program or process of copying table contents into a file for future reference. It's a challenging task for DBA's.