QUIZ - 46

(1.) Which layer of databases deals with the physical storage and organization of data on disk?

Ans. **Physical layer**
Management layer
Both a and b
None of the above

(2.) Which layer of databases is responsible for enforcing data integrity and security?

Ans. Physical layer
Management layer
Both a and b
None of the above

(3.) What are the three main components of the ER model?

Ans. Entities, attributes, and queries
Tables, columns, and keys
Entities, attributes, and relationships
Schemas, indexes, and constraints

(4.) In a company database, what is an example of an entity?

Ans. **Employee**
Salary
Sales report
All of the above

(5.) What is the hierarchical model?

Ans. **A model based on a parent-child relationship, where each record has a single parent and zero or more children**
A model based on a many-to-many relationship, where each child can have multiple parents and each parent can have multiple children
A model based on a one-to-one relationship, where each record has only one parent and one child
A model based on a one-to-many relationship, where each record has only one parent but multiple children

(6.) What is the network model?

Ans. **A more complex form of the hierarchical model, where each child can have multiple parents and each parent can have multiple children**
A less complex form of the hierarchical model, where each child can have only one parent and each parent can have multiple children
A model based on a one-to-one relationship, where each record has only one parent and one child
A model based on a one-to-many relationship, where each record has only one parent but multiple children

(7.) What is the physical data model concerned with?

Ans. How data is logically organized

How data is physically stored on a computer system

How data is accessed and retrieved

All of the above

(8.) Why is the physical data model important for database design?

Ans. It defines the logical structure of the data

It defines the high-level details of the data

It defines the low-level details of how data is stored and accessed

It defines the relationships between data entities

(9.) Which data model stores data in tables with rows and columns and establishes relationships between tables ?

Ans. **Relational data model**

Hierarchical data model

Network data model

Object-oriented data model

(10.) Which data model stores data in a tree-like structure with parent-child relationships between nodes?

Ans. Relational data model

Hierarchical data model

Network data model

Object-oriented data model

(11.) Which data model stores data in objects and allows access through methods?

Ans. Relational data model

Hierarchical data model

Network data model

Object-oriented data model

(12.) Which type of DBMS is designed to be used by only one user at a time?

Ans. Multi-user DBMS

Single-user DBMS

Hierarchical DBMS

Object-oriented DBMS

(13.) Which type of DBMS is commonly used in enterprise-level applications where many users need to access the database simultaneously?

Ans. Hierarchical DBMS

Object-oriented DBMS

Multi-user DBMS

Relational DBMS

(14.) Which system is an example of a highly scalable and secure multi-user DBMS?

Ans. Windows Registry

MySQL

Aadhaar card database in India

IBM's Information Management System

(15.) What is a Centralized DBMS?

Ans. A type of DBMS where the database is distributed across multiple computers or servers.
A type of DBMS where the entire database is stored and managed in a single location.
A type of DBMS where the data is structured in a tree-like structure.
A type of DBMS where data is stored in tables with rows and columns.

(16.) What is a Distributed DBMS?

Ans. A type of DBMS where the entire database is stored and managed in a single location.
A type of DBMS where data is stored in tables with rows and columns.
A type of DBMS where the database is distributed across multiple locations connected over a network.
A type of DBMS where data is stored in a tree-like structure.

(17.) What is the difference between a database and a DBMS?

Ans. A database is a software tool used to manage and process data, while a DBMS is a collection of data.
A database is a collection of data, while a DBMS is a software tool used to manage and process data.
A database is a single file that contains all the data, while a DBMS is a collection of multiple databases.
A database and a DBMS are the same thing.

(18.) What does DBMS stand for?

Ans. Data Backup Management System
Database Management System
Data Backup and Management System
Database Backup and Management System

(19.) Which of the following is a limitation of the traditional file system approach compared to a DBMS?

Ans. **Data redundancy**
Optimized data access and retrieval
Unlimited data sharing
Unrestricted data modification

(20.) What is a consequence of data inconsistency in a file system?

Ans. Efficient storage space
Difficulty in maintaining data consistency
Increased data security
Easy access to data

(21.) Which of the following is an advantage of using a DBMS over a file system?

Ans. Data redundancy
Limited data sharing
Data inconsistency
Improved data security

(22.) What is one advantage of a DBMS over a file system when it comes to data redundancy?

Ans. DBMS allows for more data redundancy than a file system
DBMS eliminates data redundancy altogether
DBMS can manage data redundancy and ensure data consistency
File systems have better redundancy management than a DBMS

(23.) What is the advantage of using a simpler language like SQL in DBMS?

Ans. **It makes it easier for non-technical users to manipulate the database**
It provides more security for the database
It reduces the amount of storage space required for the database
None of the above

(24.) What is the advantage of using DBMS over a file system approach?

Ans. DBMS is less secure than a file system.
DBMS uses more storage space than a file system.
DBMS reduces data redundancy and inconsistency.
DBMS limits accessibility of data to select few users.

(25.) What is a database ?

Ans. **A collection of tables that store data in a structured format and helps in computation**
A folder structure format to store data
A set of rules that govern the relationships between tables in a database
A collection of data that is stored in a file on a computer

(26.) Which of the following best describes the primary use of a database?

Ans. To store and manage data in an unstructured format
To store and manage data in a structured format
To perform complex calculations and analysis on data
To create and edit documents and presentations

(27.) Which of the following best explains why we need databases?

Ans. To store data in an unstructured format for easy access
To perform complex calculations and analysis on data
To manage and organize data in a structured format for efficient storage and retrieval
To create and edit documents and presentations

(28.) What is a schema ?

Ans. A collection of tables that store data
A set of rules that govern the relationships between tables in a database
A diagram that shows the structure of a database and the relationships between its tables
A blueprint of the structure of a database, including attribute, the types of data that can be stored and the relationships between tables

(29.) What is a database instance ?

Ans. Stored data in a structured format
A copy of a database that is used for testing or backup purposes
A running copy of a database system that is accessed by users or applications at a given time t
A set of rules that govern the relationships between tables in a database

(30.) Which of them is not a part of three schema architecture ?

Ans. Internal Schema
Conceptual Schema
Structural schema
External Schema

(31.) Which of the following is a feature of three schema architecture ;

Ans. It provides customized data for end users
Provides physical data independence
Provides logical data independence
All of the above

(32.) Which of the following is NOT a function of the external schema in a three-schema architecture?

Ans. To provide a view of the database for a specific user or group of users
To define the logical structure of the database
To define the operations that can be performed on the database
To insulate the user from changes to the internal schema

(33.) Which of the following best describes the function of the physical schema in a three-schema architecture?

Ans. To provide a view of the database for a specific user or group of users
To define the logical structure of the database
To specify how data is stored and accessed on the physical storage devices
To insulate the user from changes to the external schema

(34.) Which of the following best describes the function of the conceptual schema in a three-schema architecture?

Ans. To provide a view of the database for a specific user or group of users
To define the physical structure of the database
To define the operations that can be performed on the database
To define an abstract representation of the entire database

(35.) What is file based storage system ?

Ans. A system for storing data in a structured format, typically in tables
A system for storing data in a file on a computer, without any specific structure
A system for backing up data from a database
A system for managing the relationships between tables in a database

(36.) Which of the following is not an advantage of file-based system ?

Ans. It is easy to use
Could be easily stored and moved at multiple locations
Does not require in-depth knowledge of programming
It is very secured

(37.) What is redundancy?

Ans. The use of keys to establish relationships between tables
The process eliminating duplicate data
The duplication of data in multiple locations in a database
The use of indexes to speed up queries in a database

(38.) What are the anomalies of file based system ?

Ans. Read anomaly
Write anomaly
Update anomaly
All of the above

(39.) Which of the following is a disadvantage of a file-based storage system?

Ans. It is easy to implement and requires minimal technical expertise
It allows for efficient indexing and querying of data
It is prone to data redundancy and inconsistency
It provides advanced security features for protecting data

(40.) Which of the following best explains why redundancy occurs in a file-based storage system?

Ans. It is an intentional design choice to improve data accuracy
It is a side effect of using primary and foreign keys to establish relationships between tables
It is a consequence of storing data in multiple files for efficiency
It is a natural result of storing data in an unstructured format