Quiz Unit 2

1. The DBMS acts as an interface between **(C) The user and the database application** ensuring that data is consistently organized and remains easily accessible.
2. Components of a database consist of software, hardware, data (actual and meta data), procedures (generate reports, login credentials, backups), database access language (create databases/tables, insert/update/delete data, retrieve stored data). **(D) indexes**
3. Table is synonymous with the term **(B) relation**. Table is a collective of related data in rows and columns.
4. Row is synonymous with the term **(D) record**. Row represents a set of related data, for example in a ‘Student’ table, each row represents individual student’s data such as student ID, first name and last name.
5. Attribute is synonymous with the term **(C) column**. Each column in a table defines a specific value/type such as a first name column in a ‘Student’ table only contains the first name of the students.
6. For some relations, changing the data can have undesirable consequences **called (B) modification anomalies**. i.e. If an address in ‘Student’ table needs an update then the address from ‘Tuition’ table also needs to be updated otherwise there’s inconsistency between the address information between the linked tables.
7. The different classes of relations created by the technique for preventing modification anomalies are called **(A) normal forms**. Normalization minimizes redundancy from a set of relations caused by insertion, update or deletion (modification anomalies).
8. A database schema is **(B) The logical design of the database**. Database schema is the logical view of the database structure and to define how the data will be organized and the relations among the objects ( tables, columns, primary keys, foreign keys etc.) are associated.
9. The primary key is selected from the **(C) candidate keys**. Primary key is the candidate key uniquely identifies a row.
10. Which of the following is a group of one or more attributes that uniquely identifies a row?
11. **Key.** A key is 1 or more attributes uniquely define a row.
12. A relation is considered a **(C) two-dimensional table**. ‘Student’ table and ‘Tuition’ table are linked using studentID as a foreign key, a relation scenario between 2 tables.
13. In the relational model, relationships between relations or tables are created by **using (D) foreign keys**. A foreign key links 2 tables together.
14. You have run an SQL statement that asked the DBMS to display data in a table named UserTables. The results include columns of data labeled ‘TableName,’ ‘NumberOfColumns’ and ‘PrimaryKey.’ What are these labels?  
    These labels are **(B) Metadata**. A metadata is data that summarized and describes the basic information about the data.
15. An Enterprise Resource Planning application is a **(B) multiuser database application.** ERP software is designed for the needs of an organization/company rather than a single user.
16. The functions of a DBMS are to provide an environment to conveniently and efficiently retrieve and store information, provide central control of the data and the programs accessing the data. Processing data, creating databases and administrating databases are functions of DBMS except  
    **(A) creating and processing forms**  
      
    The ten functions in the DBMS are: data dictionary management, data storage management, data transformation and presentation, security management, multiuser access control, backup and recovery management, data integrity management, database access languages and application programming interfaces, database communication interfaces, and transaction management. <https://databasemanagement.fandom.com/wiki/DBMS_Functions>