**Roll No…………….. Total No. of Pages:……**

**ST-2 (SET-IV)**

**4th SEMESTER 2023-24**

**22CS007- Database Management System**

**Time allowed: 90 Minutes Max. Marks: 40**

**General Instructions:**

* **Follow the instructions given in each section.**
* **Make sure that you attempt the questions in order.**

**SECTION-A (10\*1 mark=10 marks)**

***(All questions are compulsory)***

1. What is the key difference between stored procedures and functions in DBMS?
   1. **Stored procedures can return multiple values, while functions can only return a single value**
   2. Stored procedures can be executed by users, while functions can only be executed by the database administrator
   3. Stored procedures are used for data manipulation, while functions are used for data retrieval
   4. Stored procedures can be called from within other procedures, while functions cannot
2. Which of the following types of procedures in DBMS is used to maintain data integrity?
   1. Stored Procedure
   2. **Trigger**
   3. Function
   4. Cursor
3. In DBMS, an insert trigger is fired when:
   1. **A new record is inserted into a table**
   2. An existing record is updated
   3. A record is deleted from a table
   4. A query is executed
4. A delete trigger in DBMS is executed when:
   1. A new record is inserted into a table
   2. An existing record is updated
   3. **A record is deleted from a table**
   4. A query is executed
5. Packages in DBMS help in achieving which of the following?
   1. **Code reusability and modularity**
   2. Data normalization and indexing
   3. Database replication and synchronization
   4. Query optimization and performance tuning
6. Which of the following is a feature of packages in DBMS?
   1. Packages are not reusable across different database schemas
   2. Packages can only contain SQL statements and no procedural code
   3. **Packages allow private variables and procedures inaccessible from outside the package**
   4. Packages cannot be compiled or executed independently
7. Which statement is true about packages in DBMS?
   1. Packages cannot be used to encapsulate SQL statements
   2. Packages cannot be stored in the database
   3. **Packages provide a way to organize and encapsulate related database objects**
   4. Packages are only used for data modeling purposes
8. Which of the following is an advantage of using packages in DBMS?
   1. **Reduced code redundancy and improved maintainability**
   2. Faster query execution times
   3. Increased database security
   4. Enhanced data compression techniques
9. Which of the following isolation levels guarantees that a transaction sees only committed data and ignores uncommitted changes made by other transactions?
   1. Read Uncommitted
   2. **Read Committed**
   3. Repeatable Read
   4. Serializable
10. A transaction that reads data before any other transaction writes to it and holds a shared lock on the data is an example of:
    1. Read-Write conflict
    2. Write-Read conflict
    3. **Read-Read conflict**
    4. Write-Write conflict

**SECTION-B (5\*2 mark=10 marks)**

***(All questions are compulsory)***

**SECTION-C(Coding Question) (4x5 marks=20 marks)**