21110001030002
Second Year B.C.A (Sem–III)
Examination March - 2023
Database Handling Using Python

Seat No:

Student's Signature

[Time: Three Hours]   [Max. Marks: 70]

Q.1   **Answer in brief (any Seven)**   **14**

1. What is type affinity in SQLite?
2. Name any four SQLite Data Types.
3. What is purpose of transaction rollback?
4. What is difference between intersect and except filters?
5. Explain syntax of Conditional Logic statements (CASE statements).
6. What is difference between self join and Full outer join?
7. What is trigger?
8. How a trigger can be created and dropped? Give an example
9. What are the advantages and features of SQLite?

Q.2   (a)   **Answer the following (Any One):**   **8**

1. Explain how to Dump specific table into file and Dump only table structure providing appropriate example.
2. How to dump entire database into file and dump data of one or more tables into a file? Provide appropriate example.

      (b)   **Answer the following (Any One):**   **8**

1. How to import a CSV file into a table? Give appropriate example.
2. How to Export a CSV file into a table? Give appropriate example.

Q.3   (a)   **Answer the following (Any One):**   **8**

1. How to Set PYTHONPATH? Explain Concepts of Namespace, Scope and Packages in python.
2. Explain Select, Insert, update, delete using execute () method to interact with SQLite table.

      (b)   **Answer the following: (Any One)**   **8**

1. What is difference between scatter, line, histogram and bar charts?
2. Explain extract and write commands for csv and excel files using Dataframe.

Q.4   **Answer the following: (Any Two)**   **14**

1. How to Extracting specific attributes and rows from dataframe? Give appropriate example.
2. What is Central Tendency measures? Describe mean, median, mode, variance, Standard Deviation.
3. Explain Dataframe functions with example: head, tail, loc, iloc, value and to_numpy().

Q.5   **Attempt (Any One):**   **10**

1) **1. Create following table and store any five records:**
   STUDENT(sno number primary key, sname text(20), age number, total_marks number)
   Write python program(s) to perform following tasks:
   (a) Store the table data into a dataframe and display the dataframe.
   (b) List out top three records from the dataframe
   (c) Display all records from dataframe whose age is not less than 18.
   (d) Display age of student whose sno is 5. (use loc() and iloc() function).

2) **Create following table and store any five records:**
   Employee(eno number primary key, Ename text(20), designation Text(10), Basic number, da number, gross_salary number)
   Write python program(s) to perform following tasks:
   (a) Store the table data into a dataframe and display the dataframe.
   (b) Sort the dataframe based on gross salary and List out bottom two records from the dataframe
   (c) Display all records from dataframe whose gross salary is more than 25000.
   (d) Display gross_salary of Employee whose Eno is 4. (use loc() and iloc() function).