19CAU12

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCA DEGREE EXAMINATION DECEMBER 2022
(Third Semester)

Branch – **COMPUTER APPLICATIONS**

RELATIONAL DATABASE MANAGEMENT SYSTEMS

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1 Which of the following is the property of transaction that protects data from system failure?
(i) Atomicity (ii) Isolation
(iii) Durability (iv) Consistency

2 Which of the following diagram depict the flow of task between various components of a system?
(i) Class (ii) Activity
(iii) Use Case (iv) Implementation

3 Choose the operation which is used to select some particular columns.
(i) Projection (ii) Selection
(iii) Join (iv) Union

4 What is the full form of CLOB?
(i) Character Long Object (ii) Character Large Object
(iii) Column Long Object (iv) Column Large Object

5 Identify the record that is used to keeps track of information about tuples or parameters.
(i) Environment (ii) Connection
(iii) Statement (iv) Description

SECTION - B (15 Marks)

Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a. Explain the Data Administrators.
OR
b. List out the components of data base systems.

7 a. Explain the types of attributes used in E-R model.
OR
b. Summarize Weak entity set with example.

8 a. Analyze the types of Outer Join operation with suitable example.
OR
b. Outline the third Normal Forms based on Primary key.

Cont...

9 a. State the reasons why SQL does not automatically eliminate duplicate tuples in the result of queries. Which keyword is used to eliminate duplicate tuples from the result? Give an example.

OR

b. Explain Triggers in SQ with Query.

10 a. Point out the approaches for Database Programming.

OR

b. Describe about Stored Procedure and Functions.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a. Discuss the various applications of Database System.

OR

b. Summarize Database Languages in detail.

12 a. Examine Mapping Cardinalities and Participation Constraints.

OR

b. Enumerate Entity-Relationship design issues.

13 a. Elucidate relational algebra operations from Set Theory.

OR

b. Explain Boyce-Codd Normal Form with example.

14 a. Discuss insert, delete and update statements in SQL.

OR

b. Analyze the use of Nested subqueries with an example.

15 a. Survey a brief overview of the techniques used for embedding SQL statements in C programming language.

OR

b. Analyze how SQL can be called from the Java object-oriented programming language.

Z-Z-Z END