

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BCA DEGREE EXAMINATION DECEMBER 2019
(Third-Semester)

Branch **COMPUTER APPLICATIONS**

RELATIONAL DATABASE MANAGEMENT SYSTEMS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 x 1 = 10)

A relational database consists of a collection of _____

- (i) Tables
- (ii) Fields
- (iii) Records
- (iv) Keys

The relational model is concerned with

- (i) Data Integrity
- (ii) Data manipulation
- (iii) Data Atomicity
- (iv) Both (i) and (ii)

_____ cannot contain null values.

- (i) primary key
- (ii) field
- (iii) objects
- (iv) attribute

Which of the following is a group one or more attributes that uniquely identifies a row?

- (i) Key
- (ii) determinant
- (iii) Relation
- (iv) tuple

_____ the first normal form is based on the concept of

- (i) Atomicity
- (ii) Functional dependency
- (iii) Durability
- (iv) Security

_____ is a SQL query to delete all rows in a table without deleting the table structure.

- (i) DELETE FROM table -name
- (ii) DELETE TABLE table name
- (iii) DROP TABLE table name
- (iv) DROP FROM table name

A problem that arises during the execution of a program is _____

- (i) trigger
- (ii) slate
- (iii) exception
- (iv) event

In a relational database, a referential integrity constraint can be specified with the help of

- (i) Primary key
- (ii) Foreign key
- (iii) Objects
- (iv) Entity integrity .

Function _____ cannot be used for _____ statement

- (i) Create
- (ii) drop
- (iii) Select
- (iv) insert

_____ is a special type of stored procedure that automatically executes when an event occurs in the database server.

- (i) Template
- (ii) exception
- (iii) trigger
- (iv) inheritance

Cont...

SECTION - B (25 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 5 = 25)

11 a Discuss about Database languages.

OR

b Analyze the role of Database users and administrators.

12 a Analyze the ER design issues.

OR

b Elucidate informal design guidelines for relational databases.

13 a Write the uses of select & project operations.

OR

b Write the steps to implement functional dependency for student database.

14 a State the purpose of INSERT, UPDATE and SELECT statements in SQL.

OR

b Describe the structure of views in SQL.

15 a How trigger is used in SQL? Classify its types.

OR

b How database programming is done in SQL? Explain with an example.

SECTION -C (40 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 8 = 40)

16 a Summarize the applications and purpose of Database systems.

OR

b Describe centralized architecture for DBMS in detail.

17 a Dramatize various notations in E-R diagram with example.

OR

b Discuss in detail about various aspects of database design.

18 a Describe different relational algebra operation in set theory .

OR

b Elucidate normal forms based on primary keys with an example.

19 a Summarize aggregate functions in SQL.

OR

b Demonstrate the use of views in SQL.

20 a Design and create an application for banking system using ODBC connectivity.

OR

b Design and create an application for student management system using ODBC connectivity.