

PE-275-CV-19

M.Sc. COMPUTER SCIENCE (2nd Semester)

Examination, June 2022

RELATIONAL DATABASE MANAGEMENT SYSTEM (RDBMS)

Time : Three Hours]

[Maximum Marks : 80

[Minimum Pass Marks : 29

Note : Answer from both the Sections as directed. The figures in the right-hand margin indicate marks.

Section-A

1. Answer the following short answer questions:

1x10=10

- (a) Database is organized collection of data or information that cannot be accesses, updated & managed. (True/False)
- (b) DCL stands for data control language. (True/False)
- (c) Data are stored in form of table in the database. (True/False)
- (d) DML is a ability to query data as well as insert, delete & alter. (True/False)
- (e) The statement in SQL which allow changing the definition of a table is Update. (True/False)
- (f) 2NF is based on concept of functional dependency. (True/False)
- (g) ACID properties of transaction is stand for Atomicity, consistency, Isolation & database. (True/False)
- (h) The ODBMS have the ability to store complex data types on the web. (True/False)
- (i) The fact that the same operation may apply to two or more classes in called polymorphism. (True/False)
- (j) Data Replication is a method of storing a separate copy of database of multiple locations. (True/False)

2. Answer the following short type questions:

2x5=10

- (a) Explain MY SQL.
- (b) Explain Triggers in database.
- (c) Explain Abstract data types.
- (d) Explain query processing.
- (e) Explain types of join in database.

Section-B

12x5=60

Answer the following Long-Answer questions:

3. What is Database? Explain the Architecture or RDBMS?

OR

Explain Codd's 12 rules of database?

4. What is Normalization? Explain the first and second Normal form in Database Management system?

OR

Explain the following:-

- a). Boyce-codd Normal form (BCNF)
- b). DCL query statement

5. Explain the ACID properties of Transaction?

OR

Explain the following:-

- a). Validation Technique
- b). Deadlock Detection

6. Explain specialization & Generalization with example?

OR

Explain the following:-

a). OODBMS b). Optimization

7. Explain Distributed database in details with example?

OR

Explain the following:-

a). Concurrency Control b). Client Server Architecture