

C1009

Total Pages : 3

Roll No.

MIT (CS)-402

Introduction to DBMS

M.Sc. Cyber Security (MSCCS-18/21)

4th Semester Examination, 2022 (June)

Time : 2 Hours]

Max. Marks : 80

Note : This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION–A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

1. What do you understand by Normalization? Explain the First and Second Normal forms of Database in detail.
2. Discuss about the operators SELECT, PROJECT, UNION.

3. Distinguish strong entity set with weak entity set? Explain ER diagram with suitable example.
4. Explain in detail the various features of SQL. Explain the procedure of creating database and running a query in SQL by giving suitable example.
5. Define trigger and explain its three parts? Differentiate row level and statement Knowledge 10 level triggers?

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. Define, in your words, database and database management system. Discuss the objectives and advantages of database. Illustrate by giving suitable examples.
2. How would you differentiate between Hierarchical and Network Model? Explain in detail by suitable examples.
3. Discuss different types of aggregate operators with examples in SQL.
4. Compare and Contrast file Systems with database systems.

5. Discuss about different types of Data models.
 6. Discuss how do you recover from Concurrent transactions.
 7. Explain ACID properties and Illustrate them through examples.
 8. Explain about Schema refinement in Database design.
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