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(Printed Pages 3)

Roll No. _____

19/191

B.C.A. Examination, 2019

Fifth Semester

First Paper

(Introduction to DBMS)

Time : Three Hours *Maximum Marks : 75*

Note: Attempt any **five** questions. **All** questions carry equal marks. The answers to short questions should not exceed 200 words and the answers to long questions should not exceed 500 words. mgkvponline.com

1. (i) What is meant by three level Architecture of database system? Explain the role of conceptual level in detail. 5+5=10

    (ii) Differentiate between DDL and DML. 5

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2. (i) Discuss the concept of ER model. How it helps in designing relational databases? mgkvponline.com   5+5=10

    (ii) What is role of Primary key and a Candidate key? Explain by giving suitable example.

3. Define the following with examples.

    5×3=15

    (i) Cardinality

    (ii) DBA

    (iii) Data dictionary

    (iv) External schema

    (v) Data recovery

4. (i) Explain the concept of life processing system. mgkvponline.com   5

    (ii) Define hashing and hashing functions. How can you resolve collisions in hashing?   10

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5. (i) What is meant by selection and projection operator? Discuss their use on SQL based queries. mgkvponline.com 10

(ii) Differentiate between commit and Rollback commands in SQL. Also unit syntax of each of them. 5

6. (i) What is an entity type? What is the difference between a strong entity type and a weak entity type? 5

(ii) Draw an ER diagram for the functioning of Library of a University. It includes details of Books up, ISBN number, title, author, Books can be issued to any user of student or faculty. 10

7. Why recovery is needed in a database? Explain the log based recovery techniques. 15

8. Illustrate the fact that BCNF is strictly stronger than 3 NF. mgkvponline.com 15