MCA-13

December - Examination 2016

MCA IInd Year Examination

Advance Database Management System

Paper - MCA-13

Time : 3 Hours]   **[Max. Marks :- 80**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A $8 \times 2 = 16$

(Very Short Answer Questions)

Note: Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

1)   (i)   Name some aggregate functions in SQL.

      (ii)   What is super key?

      (iii)   What do you mean by Roll back transaction?

      (iv)   Define transaction.

      (v)   List the ACID properties.

      (vi)   When does Insert anamolies occurs?

      (vii)   Give an example of Equi-Join.

      (viii)   What is tuple?

Section - B $4 \times 8 = 32$

(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 8 marks.

2) List the Lodd's rules to qualify a database as relational.

3) Compare 3NF and BCNF.

4) What is Primary key, Foreign key and Composite key? How you identify these keys, also give the difference among them.

5) Write short note on cursor in PL/SQL.

6) Discuss the role of various types of Database users.

7) Describe the advantages of SQL. Also explain various datatype in SQL.

8) Why E-R diagram is used in DBMS? Explain various symbol used in E-R diagram.

9) Discuss how we can control concurrency based on time stamp ordering with suitable example.

Section - C $2 \times 16 = 32$

(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 16 marks.

10) What is the need of security in Database? Discuss various issues of Database security.

11) What are the significance of Relational Algebra? Discuss various operations in Relational Algebra.

12) Define DBMS. Explain 3-tier architecture of DBMS with its advantages over 2-tier architecture.

13) What is schedule? Define serial, serializable and non-serializable schedule. Give example when two schedule said to be equivalent. How to detech equivalance of two schedule?

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