MCA DEGREE III SEMESTER EXAMINATION NOVEMBER 2013

CAS 2302 DATABASE MANAGEMENT SYSTEMS
(Regular /Supplementary)

Time: 3 Hours   Maximum Marks: 50

PART A
(Answer *ALL* questions)

$(15 \times 2 = 30)$

I.   (a) Explain the significant differences between a file-processing system and a DBMS.
      (b) What are the functions of DBA?
      (c) What is meant by DML? List out the different types of DML.

II.   (a) What is a cursor?
      (b) Explain embedded SQL.
      (c) Define view and explain why we choose view?

III. (a) Why normalization needed?
      (b) What are the design goals for relational databases and explain why each is desirable.
      (c) Show the differences between dense and sparse indices.

IV.   (a) Define transaction. Explain the properties of transaction.
      (b) When we say that a schedule is conflict serializable?
      (c) What is two phase locking?

V.   (a) What is OODBMS?
      (b) Explain distributed database characteristics.
      (c) Explain multimedia database.

PART B

$(5 \times 4 = 20)$

VI.   A.   Explain various data models.
                              OR
      B.   Explain database architecture.

VII. A.   Explain the differences between function and procedure with suitable example.

                              OR
      B.   Explain the data definitions and queries in SQL.

VIII A.   Distinguish between 3NF and BCNF with example.
                              OR
      B.   Explain hashing techniques. Discuss its advantages.

IX.   A.   Explain concurrency control mechanisms.
                              OR
      B.   How deadlocks are handled?

X.   A.   Write short notes on data mining and data warehousing.
                              OR
      B.   Explain the structure of XML data.

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