MCTA-104

M.E/M.Tech., I Semester

Examination, June-2013

Advance DBMS

Time : Three Hours

Maximum Marks : 70

Note: *Attempt one question from each unit.*
All questions carry equal marks.

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UNIT -I

1. a) Describe the generalized architecture of data base system.

   b) Define the following terms :

   i) Data Models   ii) Domain constraints

OR

2. Consider the relation (A, B, C, D, E, F, G, H, I, J) and set of functional dependencies

   $F = \{\{A,B\} \rightarrow \{C\}, \{A\} \rightarrow \{D,E\}, \{B\} \rightarrow \{F\},$

   $\{F\} \rightarrow \{G,H\}, D \rightarrow \{I,J\}\}$

   What is the key of R. decompose R in 2Nf and 3Nf

UNIT-II

3. a) Explain the ACID properties of transaction.

   b) What are check points, and why they are important.

OR

4. a) Discuss the problem of deadlock and starvation and the different approaches to dealing with these problems.

   b) Discuss the time stamp ordering protocol for concurrency control.   12 A RGPVONLINE.COM

UNIT-III

5. a) Explain the following :

   i) Time stamping protocol for concurrency control.

   ii) OODBMS and compare it with RDBMS

   b) Explain the concept of aggregation with the help of an example.

OR

6. a) How does the concept of an object in the object oriented model differ from the concept of an entity in the entity-relationship model.

   b) Explain Array and multi set types in SOL.

UNIT-IV

7. a) Write short not on data bases on www.

   b) Explain Mobile data bases in detail.

OR

8. a) Write a short note on multithreaded server.

   b) Explain the structure of XML data

UNIT-V

9. a) Explain K-D tree in detail.

   b) Write the difference between spatial and Geographic data.

OR

10. Write short note (any four)

    a) Color histogram

    b) Multi media data base

    c) Concurrency control

    d) R-tree

    e) Functional dependency