NR

Code No: A0506, A5806
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I Semester Examinations, March/April-2011
DATA BASE MANAGEMENT SYSTEMS
(COMMON TO COMPUTER SCIENCE, COMPUTER SCIENCE AND ENGINEERING)
Time: 3hours **Max. Marks: 60**
Answer any five questions
All questions carry equal marks
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1.a) Describe the components of database management system.
  b) Explain about the transaction management. [12]

2. What is relational algebra? What is the input to a relational query? What is the result of evaluating a query? Why it is important? [12]

3. How do you modify the database with SQL? What SQL commands are used? How do you modify various transactions in SQL? [12]

4.a) Given a decomposition p ={R_1, R_2…..R_k} of R and let R_i be a super key of R. Show that the decomposition p is lossless join.
  b) Explain how you identify entity sets in schema refinement. [12]

5.a) Explain about transaction failures.
  b) List the Acid properties and explain use of each. [12]

6. Describe the concept of data structure in ARIES algorithm. [12]

7.a) What is clustered index ? Explain about primary index? Differentiate between clustered & un-clustered index
  b) What are the characteristics of data that affect the choice of file organization?
[12]
8.a) What is the order of a B^+ tree ? Describe the format of nodes in a B^+ tree. Why are nodes linked at the   leaf level linked?
  b) Explain how data in a DBMS is stored on devices like disks & tapes. [12]

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