

III B.Tech II Semester Regular Examinations, April/May 2005
DATA BASE MANAGEMENT SYSTEMS
(Common to Electronics & Communication Engineering, Electronics &
Instrumentation Engineering and Electronics & Control Engineering)
Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Distinguish between DDL and DML
(b) Explain various integrity constraints.
2. (a) Explain the three set-manipulation constructs available in SQL with examples.
(b) What is a subquery? Explain with examples.
3. (a) Construct a B tree of order 2 to maintain the keys 1,9,8,6,4,5 and 10
(b) Show how 4 is replaced by 7 in the tree constructed in the above question
4. Discuss the salient features of processing a high level query. Mention the steps and explain each step with an example.
5. (a) Why is it not desirable to force users to make an explicit choice of a query processing strategy? Are there cases in which it is desirable for users to be aware of the costs of competing query processing strategies? Explain.
(b) What are the advantages and disadvantages of hash indices relative to B+ - tree indices? How the type of index available influences the choice of query processing strategy?
6. (a) Explain the difference between the following
 - i. Attribute and value set
 - ii. Relationship instance and Relationship type
(b) Construct an E-R diagram for a hospital with a set of patients and a set of medical doctors. A log of the various conducted tests is associated with each patient. Determine the entities and relationships that exists between the entities. Also construct the tabular representation of the entities and relationships.
7. What is two phase locking protocol? How does it guarantee serializability?
8. Answer the following briefly:
 - (a) How is check pointing done in ARIES?
 - (b) Can a second end check point record be encountered during analysis phase?
 - (c) Why is the use of CLRS important for the use of UNDO actions that are not the physical inverse of the original update?
