Code No: RA311202 **RA**

III B.Tech I Semester Supplementary Examinations, May 2005
DATABASE MANAGEMENT SYSTEMS
(Information Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain the different types of integrity constraints with suitable examples.

2. (a) What is an SQL ? Explain the various aspects of SQL.

   (b) Consider the following schema . The primary keys are underlined.
   Sailors(sailor-id, sailor-name, sailor-rating, sailor-age)
   Boats(boat-id, boat-name, boat-color)
   Reserves(sailor-id, boat-id, day)

   Write the queries in SQL for the following

   i. Find the names of sailors who have reserved at least one boat.
   ii. Find the ages of sailors whose names begin and end with C and has atleast four characters.
   iii. Find the names of sailors who have reserved a blue or a yellow boat.
   iv. Find the names of sailors who have reserved both a blue and a yellow boat.
   v. Find the names of all sailors who have reserved blue boats but not yellow boats.

3. (a) Write a note on inverted files.

   (b) Distinguish between sparse and dense index

4. Discuss the implementation of a select operation. Explain the processing mechanism by means of an example.

5. (a) What is indexing ? Explain with an example.

   (b) Explain about query processing.

6. (a) Explain the functional dependencies and multi valued dependencies with examples.

   (b) What is normalization? Discuss the 1NF,2NF, and 3NF Normal forms with examples.

7. (a) Explain ARIES Recovery algorithm with phases involved in it and principles followed by ARIES?

   (b) How the lock-based concurrency control performance is measured?

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?

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