

II B.TECH II SEM–REGULAR/SUPPLEMENTARY EXAMINATIONS MAY - 2010**DATABASE MANAGEMENT SYSTEMS****Common to Information Technology, Computer Science And Engineering****Time: 3 hours****Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. Explain Buffer Management in detail. [16]
2. Define functional dependencies. How are primary keys related to Functional dependency's? [16]
3. Explain Different states of Transactions? [16]
4. (a) Explain the difference between logical and physical data independence.
(b) Give short notes on Transaction management. [8+8]
5. (a) Define all the variations of the join operation. Why is the join operation given special attention? Cannot we express every join operation in terms of Cross-product, Selection and Projection?
(b) Relational Calculus is said to be a declarative language, in contrast to algebra, which is a procedural language. Explain the distinction. [8+8]
6. (a) Write a detail note on participation constraint.
(b) What is the class hierarchy? How is it represented in the ER diagrams? [8+8]
7. Explain heap file with un clustered Hash index? [16]
8. (a) Write the following queries in SQL using Nested queries concept for following Schema.
Sailors (sid: integer, sname: string, rating: integer, age: real)
Boats (bid: integer, bname: string, color: string)
Reserves (sid: integer, bid: integer, day: date)
 - i. Find the names of sailors who have reserved both red and green boat
 - ii. Find the names of sailors who have reserved all boats
 - iii. Find the names of sailors who have not reserved red boat
 - iv. Find sailors whose rating is better than some sailor called raghu.
(b) What is a correlated nested query? Explain with an example. [12+4]
