II B.Tech I Semester Examinations,November 2010

## DATA BASE MANAGEMENT SYSTEMS

Common to Information Technology, Computer Science And Engineering, Computer Science And Systems Engineering
Time: 3 hours
Max Marks: 80
Answer any FIVE Questions
All Questions carry equal marks

1. (a) Write a short note on
i. Reading uncommitted data(WR Conflict)
ii. Unrepeatable reads(RW Conflict)
iii. Overwriting uncommitted data( WW Conflict)
(b) Explain schedules involving aborted transaction with suitable examples.
2. Construct a $B+$ - tree for the following set of key values. $(23,5,7,11,17,19,23,29,31)$ Assume that the tree is initially empty and values are added in ascending order. For this tree steps in the following queries.
a) Find records with a search-key value of 11 .
b) Find records with a search-key value between 7 and 17, inclusive
3. (a) Write about the storage manager of database system structure.
(b) Discuss the Query Processor of Database system structure.
4. Compare Séquentia1, Indexed, Indexed Sequential File organization techniques. [16]
5. (a) Define the division operation in terms of basic relational algebra operations. Describe a typical query that calls for division. Unlike join, the division operator had not special attention in database, Explain. Why?
(b) What is relational completeness? If a query language is relationally complete, can you write any desired query in that language.
6. (a) What is functional dependency? Explain with Example?
(b) What is 2 NF? Expalin with example?
7. (a) Explain how does granularity of locking affect performance of concurrency control Algorithm.
(b) What is a lock? Explain Shared \& Exclusive locks with a suitable example.
8. (a) What is multi valued dependency?
(b) What type constraint does it specify? Give an example?

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