Maturi Venkata Subba Rao Engineering College

B.E IV sem ASSIGNMENT – 2

SUBJECT: **DBMS**

1. Why do we normalize tables, explain.
2. Write short notes on ACID properties.
3. What is a recoverable schedule.
4. Define Functional Dependency with an example.
5. List and explain about **Armstrong axioms.**
6. Write short notes on closure of attribute set.
7. Write short notes on closure of Function dependency.
8. Decompose the following relation R till 3NF, using given set of FD's.
    a. R (ABCDEFGHIJ) and FD: {AB->C, A->DE, B->F, F->GH, D->IJ}
9. **Explain 1NF, 2NF & 3NF with suitable examples and Compare BCNF & 3NF.**
10. When a transaction need to rollback?
11. Differentiate **Static and Extensible Hashing** considering suitable examples.
12. Write short notes on bitmap indices.
13. Explain in detail about ordered index mechanisms.
14. **Construct a B+ tree for the given set of values - 6,17,28,22,43,54,65,76,87,98,99.**
15. Draw *transaction state diagram* and explain transaction states.
16. Describe the concept of serializability with suitable example.
17. How do we test for conflict serializability explain considering suitable example.
18. Explain **conflict Serializability and view Serializability**.
19. Write short note on Cascading Rollback.
20. What is a **precedence graph** and why it is used?
21. Explain *Deadlock Prevention and Recovery* techniques.
22. Explain about Log based recovery.
23. Explain **Two phase locking** protocol.
24. Explain Timestamp ordering protocol.
25. Explain *Validate based* protocol.
26. What is Thomas Write Rule?
27. Explain cursor considering suitable example.
28. Explain *Multiple Granularity* protocol.
29. What is dirty write?
30. Differentiate Static and Extensible Hashing considering suitable examples.
31. Write short notes on **ARIES Recovery algorithm**.