

ADT important questions:

- 1) Database Applications Example.
2. DDL, DML. → examples.
3. ~~Ent~~ ER model with example. (Student Table)
4. Case studies. → Database design.
5. Normalisation. → Upto BCNF.
6. Ordered Indices, B+ tree, Bit map, static Hashing technique.
7. Acid Properties → Importance.
8. Transaction Atomicity, Durability.
9. Implementation of isolation.
10. Transaction Definition in SQL.
11. Isolation levels.

- Unit-1 ~~Adm~~ and also
1. High level database (Models)
 2. Relationship type, sets, rules
 3. Constraints on relationships types.
 4. Mapping Cardinality Constraints
 5. ER data model. (Student, library management, banking system, university management)
 6. EER or advantages with examples.

Unit-2.

1. Normal forms.
2. Projection (5NF)
3. Design guidelines for ^{relational} schemas.
4. Functional Dependency with examples, in Normalisation.

Unit-3.

1. Variations of 2 ~~phase~~ ^{phase} locking protocols.
2. ~~wait~~ Cautious waiting, no waiting and time out protocols in dead-lock prevention.
3. Dead-lock is starvation.
4. {wait-die, wounder-wait} → Dead-lock prevention.
5. Different levels of Isolation.
6. Lock-based concurrency control.

Unit-4.

17. ^{or Traditional,} NOSQL vs SQL D/B.
18. HBase vs Oracle D/B
19. HBase Architecture
20. HBase Commands.
21. Graph Databases & usages, with examples.
22. Categories of NOSQL databases.
23. Column Oriented Databases.
- ✓ 24. Key-Value Databases.
25. NOSQL Characteristics.
26. Storing & Accessing data with HBase.

Unit-5.

27. CRUD in NOSQL Database.
- ✓ 28. Transaction control language. (Commit, Rollback, Savepoint)
29. Data consistency with NOSQL db
30. NOSQL vs traditional db with respect to CRUD operations.
31. DDL Commands.
32. DML with Cassandra
33. Comparison of MongoDB vs Cassandra.