1. Distributed query optimization concept
2. Concept of join graph, data replication, autonomy in distributed systems
3. Join graph uses
4. Concept of types of fragmentations
5. Definition of catalogs and its uses
6. Distributed catalog management concepts
7. Simplification of queries using query reduction techniques.
8. Architecture of distributed transaction management
9. Concept of distributed transaction management and its components
10. Semi-join strategies and its benefits.