| | | |
|---|---|---|
| | Indexing and Hashing- Basic concepts, Static Hashing, Dynamic Hashing, ordered indices, Multi-level indexes, B-Tree index files, B+- Tree index files, Buffer management Transaction processing concepts: Transaction processing system, schedule and recoverability, Testing of serializability, Serializability of schedules, conflict & view serializable schedule, recovery from transaction failures, deadlock handling. | |
| Unit 5 | Concurrency Control Techniques: Locking Techniques for concurrency control, time stamping protocols for concurrency control, concurrency control in distributed systems. multiple granularities and multi-version schemes.<br><br>Case Studies: Commercial databases, Oracle, Postgress, MySQL | 14 |
| | Total | 42 |

**Books:-**

| S.No. | Name of Books/Authors/Publisher |
|---|---|
| 1 | Elmasri, Navathe,"Fundamentals of Database systems", Addision Wesley, 2006. |
| 2 | Korth, Silbertz, Sudarshan,"Data base concepts", McGraw-Hill, 2001. |
| 3 | Ramakrishna, Gehkre, "Database Management System", McGraw Hill,2002. |
| 4 | Date C.J.,"An Introduction to Database systems", 2004 |