MID Exam Syllabus(DBMS) (60%)

Sr.	Topic	Weightage	Teaching Hrs.
1	**Database system architecture and Data models**: **Database system architecture**: Data Abstraction, Data Independence, Data Definition Language (DDL), Data Manipulation Language (DML). **Data models:** Entity-relationship model, network model, relational and object oriented data models, integrity constraints, data manipulation operations.	15%	7
2	**Relational query languages, Relational database design and Query processing and optimization**: **Relational query languages**: Relational algebra, Tuple and domain relational calculus, SQL3, DDL and DML constructs, Open source and Commercial DBMS -MYSQL, ORACLE, DB2, SQL server **Relational database design:** Domain and data dependency, Armstrong's axioms, Normal forms, Dependency preservation, Lossless design. **Query processing and optimization**: Evaluation of relational algebra expressions, Query equivalence, Join strategies, Query optimization algorithms.	30%	14
3	**Storage strategies**: Indices, B-trees, hashing.	10%	5
4	**SQL Concepts**: Basics of SQL, DDL,DML,DCL, structure creation, alteration, defining constraints Primary key, foreign key, unique, not null	5%	2