

- What is database management system (DBMS) ? What are the tasks performed by users in DBMS ?
- What are the advantages and disadvantages of DBMS ?
- What do you understand by database users ? Describe the different types of database users.
- Who are data administrators ? What are the functions of database administrator ?OR Discuss the role of database administrator.
- What is data abstraction ? Explain different levels of abstraction.
- Explain the differences between physical level, conceptual level and view level of data abstraction.
- Explain the difference between database management system (DBMS) and file system.
- Discuss the architecture of DBMS. What are the types of DBMS architecture ?
- What are data models ? Briefly explain different types of data models.
- Describe data schema and instances.
- Describe data independence with its types
- Describe the classification of database language. Which type of language is SQL ?
- Explain DBMS interfaces. What are the various DBMS interfaces ?
- What is ER model ? What are the elements of ER model ? What are the notations of ER diagram ?
- What do you understand by attributes and domain ? Explain various types of attributes used in conceptual data model.
- Construct an ER diagram for University system.
- Construct an ER diagram for the registrar's office
- Explain the primary key, super key, foreign key and candidate key with example. OR Define key. Explain various types of keys.
- What do you mean by a key to the relation ? Explain the differences between super key, candidate key and primary key.

- Explain generalization, specialization and aggregation. OR Compare generalization, specialization and aggregation with suitable examples.
- What is Unified Modeling Language ? Explain different types of UML.
- What is relational model ? Explain with example.
- Explain constraints and its types.
- Consider the following relations:
- What are the additional operations in relational algebra ?
- Explain integrity constraints.
- Describe mapping constraints with its types.