Database Management Systems - Question Bank

UNIT-1

1. Explain with the help of a suitable example the concept of generalization, specialization, aggregation, and association in EER model. (Repeated)

2. What are the advantages of the Object-Oriented Database approach for database management? (aa sakta hai)

3. What is an Object Identifier? Explain with the help of an example. What are its advantages and disadvantages?

4. What are the enhancements that distinguish the EER model from the ER model? (aa sakta hai)

5. What is the difference between specialization and generalization? Why do we not display this difference in a schema diagram? (Repeated)

6. Differentiate the following with respect to the object-oriented data model:

   - Object and Attributes
   - Classes, Subclasses, and Superclasses

7. What are the different ways of Transaction Management and Concurrency Control in OODBMS?

8. How are Encapsulation, Recursion, Selection, Restriction, and Multiset Aggregation specified in ORDBMS? (aa sakta hai)

9. What are different architectures and storing issues related to OODBMS?

UNIT-2

1. What is a Distributed Database? Explain the various architectures of Distributed Databases. What are the advantages and disadvantages of Distributed Databases? (Repeated)

2. What is a Parallel Database? Explain the following in the context of Parallel Database: (Repeated)

   - Inter- and Intra-query parallelism
   - Inter- and Intra-operation parallelism

3. What is a Parallel Database? Explain various architectures of Parallel Database along with their advantages and disadvantages. (Repeated)

4. Differentiate Interoperation and Intraoperation Parallelism. How does Interoperation Parallelism increase the performance of a parallel system? (Repeated)

5. How does a server provide transaction services to a client? Illustrate with diagrammatic notation. (Repeated)

UNIT-3

1. How is time incorporated using tuple versioning and attribute versioning in a temporal database? (Repeated)

2. How are rules interpreted in a deductive database? Also discuss the Datalog program and their safety. (Repeated)

3. What is XML? What are its advantages? Explain the three main types of XML documents. (Repeated)

4. What is a Deductive Database? How are rules interpreted in Deductive Databases? (Repeated)

UNIT-4

1. What is OLAP? Discuss the following OLAP operations with the help of examples: (Repeated)

- Roll-up
- Drill-down
- Pivot
- Slice and Dice

2. What is a Data Warehouse? How does it differ from a Database? Explain and compare the following types of Data Warehouse: (Repeated)

- Data Mart
- Virtual Warehouse
- Enterprise Warehouse

Note: If schema types are asked instead of warehouse types, write the full answer for types as given above.

3. What is a Data Cube? How is it used in data warehousing? Explain with the help of an example. (Repeated)