

Samir

Comp/Rev

ADBS T.E/Com/sem V

ws Oct- 10 186

Con. 6095-10.

NOV 2010

(REVISED COURSE)

GT-6712

(3 Hours)

[Total Marks : 100

N.B. :

- 1) Question no.1 is **compulsory**.
- 2) Attempt **any four** out of remaining.

1. a) Define data warehousing and data mining. List the applications. 5
- b) Explain concept of Geographical Information System. 5
- c) Compare RDBMS, OODBMS and ORDBMS. 5
- d) Write short note on Query processing in distributed databases. 5
2. a) Describe different architecture for Parallel Database. 10
- b) Explain mobile databases and multimedia databases. 10
3. a) What is DTD ? Give the DTD for an XML representation of the following nested relational schema. 10

Emp=(ename, Childrenset setof(children), Skillsetsetof(skill))
 Children=(name, Birthday)
 Birthday=(day, month, year)
 Skills=(type, Examset, setof(exams))
 Exams=(year, city) .
- b) What is difference between Persistent and Transient objects? How persistence is handled in typical Object - oriented system. 10
4. a) Explain with proper example nested relation in ORDBMS. 10
- b) Write short note on Mobile databases. 10
5. a) Explain data fragmentation, replication and allocation technique for distributed database design. 10
- b) Consider the following database for a chain of bookstores.
 Books (Booknum, Primary-author, Topic, Total-stock, Price)
 Bookstore (Storenum, City, State, Zip, Inventory-value)
 Stock (Storenum, Booknum, Qty)
 Indicate a star schema that could be used for building a data warehouse. 10
6. a) Explain with suitable example Aggregation, Specialization and Generalization in EER Diagrams. 10
- b) Explain with suitable example object identity, Object structure and type constructors in case OODBs. 10
7. Write short note on any two. 20
 - a) Transient Object, Subclass and superclass.
 - b) Temporal database
 - c) Web databases.