

B.E. (Information Technology)
ADVANCED DATABASE MANAGEMENT
(2008 Course) (Semester - I) (Elective - I)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate books.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*
- 4) Assume suitable data, if necessary.*
- 5) All questions are compulsory.*

SECTION - I

Q1) a) Describe the PL/SQL transaction Commands. Write a PL/SQL transaction using the statements that first withdraw an amount of Rs. 1,000. The deposit Rs. 1,40,000. Update the current balance. Then check the total sum of all the accounts in the bank exceeds 2,00,000 then undo the deposit made. **[8]**

Tables: Trans_Master(Trans_No,Acc_no,T_Date,Amount,Trans_Type, Balance)

Acc-Master(Acc_no,cur_balance) assume the proper data types.

b) Describe the working of cursor and types of cursors in PL/SQL. **[8]**

OR

Q2) a) Explain the need of packages and describe the package in detail with its advantages. **[8]**

b) Compare the Embedded SQL and dynamic SQL. **[8]**

Q3) Write a short note on: **[18]**

- a) Main Memory Database.
- b) Real Time Transaction system.
- c) Long Duration Transaction.

OR

- Q4)** a) What is Transactional Workflow explain in detail with example. [9]
b) Explain the different concurrency control protocol for Multidatabase System. [9]

- Q5)** a) What is object oriented databases? Explain the type Inheritance and table Inheritance in OODB. [8]
b) Explain the need and structure of XML document. [8]
c) Write short note on Timestamping concurrency control in Multidatabase System. [2]

OR

- Q6)** a) List and Explain the Query languages for XML. [8]
b) What is Persistent object? Explain the approaches to make the Object Persistent. [8]
c) Consider the following nested relational schema. [2]

Emp=(ename, childrenset setoff(children), skillset setoff(skill))

Children=(name,birthday), Birthday(day,Month,year)

Skills(type,Examset setoff(Exams)), Exams=(year,city))

Write DTD and XML file

SECTION - II

- Q7)** a) Draw and Explain the three tier architecture for Data warehouse. [8]
b) Explain the Data Warehouse Data flows in detail. [8]

OR

- Q8)** a) Discuss the features of Star, Snowflake and Fact Constellation schema of Data Warehouse, Compare the above three schema's [8]
b) State and Explain the process of Data ware house Design. [8]

- Q9)** a) Write K means algorithm in details with example. [8]
b) Explain Apriori Algorithm with example. [8]

OR

Q10) Write short notes on: [16]

- a) OLAP benchmarks and applications.
b) Decision tree Classification and Bayesian classification.

Q11) a) Write a note on Database Security and the threats. [8]

- b) Explain the following in terms of providing security for a database: [8]
i) Authorization.
ii) Encryption.

OR

Q12) a) Explain the implicit and explicit locking? How does Oracle implement it? [8]

- b) Explain the use of Privileges and Role in Oracle with example. [8]

