

Total No of Questions: [12]

SEAT NO. :

[Total No. of Pages : 2]

B.E. 2008 (ADVANCED DATABASE MANAGEMENT)

(Elective - I) (Semester - I)

Time: 3 Hours

Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate answer books.
- 2) Attempt Q.1or Q.2, Q.3or Q.4., Q.5or Q.6 from section I.
- 3) Attempt Q.7or Q.8, Q.9or Q.10., Q.11or Q.12 from section II
- 4) Neat diagrams must be drawn wherever necessary.
- 5) Figures to the right side indicate full marks.
- 6) Use of Calculator is allowed.
- 7) Assume Suitable data if necessary

SECTION I

- Q1) a) What is PL/SQL Engine? Draw PL/SQL BLOCK structure. Explain each block. [8]
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) a) Write a short not on [16]
i)Main Memory Database
ii)Real Time Transaction system

OR

- Q4) a) What is Transactional Workflow explain in detail with example. [8]
b) Explain the Optimistic concurrency control protocol for Multidatabase System. [8]

- Q5) a) Describe XML query algebra operation. Describe FLWOR expression with example. [9]
b) What is Persistent object? Explain the approaches to make the Object Persistent [9]

OR

- Q6) a) What is XML Schema.? Explain with example. [9]
b) Where you would need to use Complex data types? How would you declare structured types using SQL: 1999? [9]

SECTION II

- Q7) a) Discuss the features of Star, Snowflake and Fact Constellation schema of Data Warehouse, Compare the above three schemas. [9]
b) Explain Kimball database design methodology for data warehouse. [9]

OR

- Q8) a) Present a diagrammatic representation of typical architecture and main components of data warehouse. [9]
b) What is the need of extraction, cleaning and transformation while building data warehouse? Give examples to support your answer. [9]

- Q9) a) Explain Apriori Algorithm with example. [8]
b) What is Data cube? Explain the different operations on data cube. [8]

OR

- Q10) a) What is Decision tree? How decision tree is used for classification? [8]
b) What is OLAP benchmark? List the applications and Benefits of OLAP. [8]

- Q11) a) Explain what is the need of granting and revoking privileges . [8]
b) Explain different security and integrity threats to the database. [8]

OR

- Q12) a) What is authorization and encryption in terms of providing security for database? [8]
b) Explain the statistical database security. [8]