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 Aproiri 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]