

**B.TECH SEM – VII (2007 COURSE) (INF. TECH.) : WINTER -
2017**

SUBJECT : ELECTIVE – I: ADVANCED DATABASE SYSTEMS

Day : **Monday**
Date : **22/01/2018**

Time : **02.30 PM TO 05.30 PM**
Max. Marks : **80**

W-2017-2591

N.B.:

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in the **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.
- 4) Assume suitable data if necessary.

SECTION – I

- Q.1** a) Write a short note on ‘Parallel Query Evaluation’. [05]
b) Explain ACID property of transaction. [05]
c) Write a short note on ‘Data Replication’. [04]
- Q.2** a) Write SQL code to control the concurrency in database transaction. [07]
b) Write SQL code to join two tables having composite key in both the tables. [06]
- Q.3** a) What is the use of encapsulation in persistent programming language? [07]
b) How database schema from OODBMS is different than RDBMS database schema? [06]
- Q.4** a) Briefly explain allocation techniques for distributed database design. [07]
b) When it is useful to have replication or fragmentation of data? [06]

SECTION – II

- Q.5** Write a short note on:
a) Decision tree data mining model. [05]
b) Dynamic Query Execution. [05]
c) Spatial Databases. [04]
- Q.6** a) Briefly explain ‘Transformation of relational expressions’. [07]
b) How cost of the query is measured? Explain with example. [06]
- Q.7** a) How the problem of path direction of packets can be solved with neural nets in distributed databases? [07]
b) Explain ‘Data mining steps’ in brief. [06]
- Q.8** a) Write a short note on ‘Semi-structured data model’. [07]
b) Explain in brief ‘XML document schema’. [06]

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