

Code: CS7T4B

**IV B.Tech - I Semester–Regular Examinations– October 2017**

**ADVANCED DATABASES  
(COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11 x 2 = 22 M

1. a) Give any two differences between Query Tree and Query Graph.
- b) What is the use of Pipelining?
- c) Define Transaction. Give suitable example.
- d) List types of log records in system logs.
- e) Define commit point of a transaction.
- f) Define upgrade and downgrade.
- g) What is a shadow copy scheme?
- h) Mention why ARIES algorithm is important in recovery?
- i) What are the time stamps associated with each data item?
- j) What is GIS? List its applications.
- k) List difficulties in deductive databases.

## PART – B

Answer any **THREE** questions. All questions carry equal marks.  $3 \times 16 = 48 \text{ M}$

2. a) Write about different algorithms for Set operations. 8 M

b) Illustrate Left-outer join with suitable example. 8 M

3. a) Explain lost update problem and temporary update problem in concurrent execution with example. 8 M

b) List and explain desirable properties of transaction. 8 M

4. a) What is shadow paging scheme? Where is it used? 8 M

b) What is time stamping? Explain a mechanism of concurrency control that uses time stamping with the help of an example. 8 M

5. a) Explain the database recovery techniques based on deferred update. 10 M

b) Explain recovery based on immediate update techniques. 6 M

6. Write short notes on the following:

16 M

a) Mobile Data Management.

b) Genomic databases.