Code No: 5258AB

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M. Tech I Semester Examinations, February - 2017
DATABASE INTERNALS
(Computer Science and Engineering)

Time: 3hrs   Max.Marks:75

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B
consists of 5 Units. Answer any one full question from each unit. Each question carries 10
marks and may have a, b, c as sub questions.

PART - A

5 × 5 Marks = 25

1.a)	Define Nested queires. Give an example.	[5]
b)	State third normal form. Give an example relation.	[5]
c)	How does write-ahead Log protocol perform recovery?	[5]
d)	Differentiate between linear probing and linear hashing.	[5]
e)	How to handle distributed catalog?	[5]

PART - B

5 × 10 Marks = 50

2. Illustrate ER model with a school admission system. [10]

OR

3. Explain the purpose of Database systems. Mention its applications. [10]

4. What are the properties of decomposition? Discuss about loss less join Decomposition. [10]

OR

5. Explain about functional dependencies. Illustrate with examples, computation of closure. [10]

6. Define Deadlocks. How are they detected in DBMS? [10]

OR

7. Explain about Crash Recovery. How do we recover from a system crash? [10]

8. Explain the various operations of a B+ Tree. Illustrate with example the Insertion and delete operations of a B + tree index. [10]

OR

9. Explain the Hash based Indexing with illustration. [10]

10. What is Distributed database? Distinguish the features of Distributed Data base and centralized database. [10]

OR

11. Explain the Distributed query processing with a suitable example. [10]

---oo0oo---