



Code No. : 5285/S

FACULTY OF INFORMATICS
B.E. 3/4 (IT) I Semester (Suppl.) Examination, June 2012
DATABASE SYSTEMS

Time : 3 Hours]

[Max. Marks : 75

Note : Answer all questions from Part A.
Answer any five questions from Part B.

PART – A

(25 Marks)

1. List the major disadvantages if information is organized in a file processing system. 2
2. What is a weak entity set ? Describe with example. 3
3. Write how relational algebra operations deal with NULL values. 3
4. Explain set membership in SQL. 2
5. What is the difference between 3NF and BCNF ? 3
6. How do define a procedure in SQL ? 2
7. What is the difference between a B – tree and B + tree ? 3
8. List the ACID properties. 2
9. Write about Thomas, write rule. 3
10. Draw the architecture of remote backup system. 2

PART – B

(5×10=50 Marks)

11. a) What are the functions of a database administrator ? 3
b) Discuss in detail E-R diagram design issues. 7
12. a) Explain about different outer join operations in relational algebra. 3
b) Discuss about basic structure of SQL queries. 7

(This paper contains 2 pages)

- 13. a) Discuss in detail about integrity constraints in SQL. 7
- b) List and explain Armstrong's axioms. 3
- 14. a) What are the disadvantage of static hashing and how it is overcome by dynamic hashing? 5
- b) How do you test whether a given non-serial schedule is serializable? 5
- 15. Compare and contrast the deferred and immediate-modification versions of log based recovery scheme. 10
- 16. Write short notes on:
 - a) Generalization and specialization. 5
 - b) Fundamental relational algebra operations. 5
- 17. Write short notes on :
 - a) Views in SQL. 5
 - b) Bitmap indices. 5