

Code No: RT31054

R13**SET - 1**

III B. Tech I Semester Supplementary Examinations, May- 2018
DATABASE MANAGEMENT SYSTEMS
(Common to Computer Science Engineering and Information Technology)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**

PART -A

- | | | | |
|---|----|---|------|
| 1 | a) | What is the need of data model in DBMS and give its classification | [3M] |
| | b) | List the SQL functions for string conversions. | [4M] |
| | c) | How to represent a weak entity set in ER diagram? Quote suitable example. | [4M] |
| | d) | What is a surrogate key? How can it be used for schema refinement? | [4M] |
| | e) | Compare wait/die with wound/wait scheme. | [4M] |
| | f) | Quote an example for an index on multiple keys of a relation schema. | [3M] |

PART -B

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|---|----|---|-------|
| 2 | a) | Who are the different database users? Explain their interfaces to database management system. | [8M] |
| | b) | Describe the client server architecture for the database with necessary diagram. | [8M] |
| 3 | a) | What is NULL? What is its importance? How are these values handled in relational model? | [7M] |
| | b) | Consider the following database schema to write queries in SQL
Sailor(sid, sname, age, rating)
Boats(bid, bname, bcolor)
Reserves(sid, bid, day)
i) Find the sailors who have reserved a red boat
ii) Find the names of the sailors who have reserved at least two boats
iii) Find the colors of the boats reserved by 'Mohan'. | [9M] |
| 4 | a) | Define the following terms and give examples
(i)cardinality (ii)unary relationships (iii)aggregation (iv)specialization | [10M] |
| | b) | Illustrate different types of joins in SQL | [6M] |
| 5 | a) | How to compute closure of set of functional dependency? Explain with a suitable example schema. | [8M] |
| | b) | What is multi valued dependency? State and explain fourth normal form based on this concept. | [8M] |
| 6 | a) | Define transaction and explain desirable properties of transactions. | [8M] |
| | b) | What is a trigger? How to create it? Discuss various types of triggers. | [8M] |
| 7 | a) | Discuss the concept of cylinder and its benefit in disk organization. | [6M] |
| | b) | Which file operations are preferred on hash file and why? | [4M] |
| | c) | Is B+ tree, a multi level indexing? How does it differ from B-tree? | [6M] |
