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**

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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

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   [9M]
   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'.

4   a) Define the following terms and give examples   [10M]
   (i)cardinality (ii)unary relationships (iii)aggregation (iv)specialization

   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]

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