Code No: RT32192 **R13** SET - 1

III B. Tech II Semester Regular/Supplementary Examinations, April -2018

DATABASE MANAGEMENT SYSTEMS

(Electronics and Computer Engineering)

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)	Describe actors on scene with respect to data base users.	[3M]
	b)	Distinguish between Key constraints and Integrity constraints.	[4M]
	c)	Write about nested queries.	[4M]
	d)	Write the rules involved for Multi Valued Dependencies.	[4M]
	e)	How to design active databases using triggers?	[4M]
	f)	Write about the transaction management with SQL using save point.	[3M]

PART –B

2	a)	Why data modeling is important? Explain different types of data modeling.	[8M]
	b)	What are the functional differences between centralized and client server architecture for the database?	[8M]
3	a)	Illustrate the usage of insert, delete, and update operations on student's database.	[8M]
	b)	What is the importance of integrity key constraints? Express various key constraints in SQL with example.	[8M]
4	a)	Give an example scenario motivating key constraints, weak entities, class hierarchy and aggregation of ER model design constructs.	[8M]
	b)	What operations can be used to manipulate the data in a single relation? Give Examples.	[8M]
5	a)	How to test decomposition is lossless-join and dependency preserving? Give examples.	[8M]
	b)	Consider the attribute set R=ABCDEFGH and the FD set F={AB→C, AC→B,AD→D,BC→A, E→G} for attribute sets ABC, ABCEG compute the set of dependencies that hold over set and name the strongest normal form.	[8M]
6	a)	What is Phantom problem? Where it occurs? Explain in detail.	[4M]
	b)	Write the following i) Implementation of typical lock manager ii) Deadlock detection schemes. iii) Relate precedence graph with conflict Serializability	[12M]
7		Give the structure of B+ tree. And perform insertion, deletion and search operations on it	[16M]

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