Hall Ticket No.: | | | | | | | | | | |

SRIT R19

SRINIVASA RAMANUJAN INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

II B. Tech I Sem – Continuous Internal Examinations I – Mar 2021

DATABASE MANAGEMENT SYSTEMS

[194GA05302]

(Computer Science and Engineering)

Time: 2 hours **SET – 1** **Max. Marks: 30**

Answer the following questions

Q. No		Questions	Unit	Marks	CO	Cognitive Level
1	a)	Mention the main differences between trivial and non-trivial dependencies.	3	2	2	Remember
	b)	State Thomas' write rule.	4	2	3	Remember
	c)	What is MTTF?	5	2	5	Remember
UNIT-3						
2		Explain 1NF, 2NF, 3NF and 4NF with suitable example.		8	2	Apply
OR						
3		Consider a relation R = {ABCDE}. The FD's = {A →B, BC→E, ED→A} list all candidate keys for R?		8	2	Apply
UNIT-4						
4	a)	Explain about how concurrency can be controlled using time stamp methods with an example.		4	3	Apply
	b)	Illustrate validation based Protocols with a suitable example.		4	3	Apply
OR						
5		Explain storage structure and their access methods in detail.		8	5	Understand
UNIT-5						
6		Explain about B+ - tree file organization with its data structure, search and deletion operations.		8	6	Apply
OR						
7	a)	Distinguish between Extendible and Linear Hashing with an example.		4	6	Apply
	b)	Illustrate static and dynamic hashing techniques with an example.		4	6	Apply

Prepared by

Name of the Faculty: **Mr. M. Narasimhulu, Assistant Professor, CSE**

Signature of the Faculty:

Hall Ticket No.: | | | | | | | | | | |

SRIT R19

SRINIVASA RAMANUJAN INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

II B. Tech I Sem – Continuous Internal Examinations I – Mar 2021

DATABASE MANAGEMENT SYSTEMS

[194GA05302]

(Computer Science and Engineering)

Time: 2 hours **SET – 2** **Max. Marks: 30**

Answer the following questions

Q. No		Questions	Unit	Marks	CO	Cognitive Level
1	a)	What are the anomalies in bad design of database?	3	2	2	Remember
	b)	Draw the state diagram of the transaction.	4	2	3	Remember
	c)	What is RAID?	5	2	5	Remember
UNIT-3						
2		A set of FD's for the relation R {A, B, C, D, E, F} is AB→C, C→A, BC→D, ACD→B, BE→C, EC→FA, FC→BD, and D→E. Find a minimum cover for this set of FD's?		8	2	Apply
OR						
3	a)	Define BCNF. How does BCNF differ from 3NF? Explain with an example		4	2	Apply
	b)	Illustrate Multi-valued dependencies and Fourth Normal Form with an example.		4	2	Apply
UNIT-4						
4	a)	Illustrate Failure Classification of all storage devices.		4	5	Understand
	b)	Explain Remote backup Systems.		4	5	Understand
OR						
5		Illustrate multiple granularity locking algorithm with a suitable example		8	3	Apply
UNIT-5						
6		Illustrate about B+ tree index file with a suitable example.		8	6	Apply
OR						
7	a)	Explain static and dynamic hashing techniques.		4	6	Understand
	b)	Illustrate about clustered, primary and secondary indices in detail.		4	6	Understand

Prepared by

Name of the Faculty: **Mr. M. Narasimhulu, Assistant Professor, CSE**

Signature of the Faculty: