KESHAV MEMORIAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE & Govt of T.S and Affiliated to JNTUH)

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Department of Computer Science and Engineering
DATABASE MANAGEMENT SYSTEMS
(Common to CSE, IT)

Time: 3 Hours   Max. Marks:75

Model Paper

PART A (25 Marks)

Q. No.	Questions	Marks	CO	BL
1a.	What is logical data independence?	3M	CO1	L1
1b.	Define view? How to create and destroy the view?	2M	CO1	L1
1c.	Write about candidate key?	2M	CO2	L3,L6
1d.	Describe triggers and active databases?	3M	CO2	L2
1e.	What is redundancy? And what are the problems caused by redundancy?	2M	CO3	L1
1f.	Differentiate 3NF and BCNF?	3M	CO3	L4
1g.	What is shadow copy technique?	2M	CO4	L1
1h.	Define stable storage?	3M	CO4	L1
1i.	Differentiate hash based indexing and tree based indexing?	2M	CO5	L4
1j.	Write the applications of indices?	3M	CO5	L3,L6

PART B (50 Marks)

2a.	Explain levels of abstraction with the help of the diagram?	5M	CO1	L1
2b.	List and explain advantages of Database system?	5M	CO2	L1
OR				
3a	Illustrate the architecture of the database system?	5M	CO2	L3
3b	Describe the database languages?	5M	CO1	L2
4a	What is query? Explain nested queries and correlated nested queries with examples?	5M	CO2	L1
4b	Discuss the relational algebra operators with examples?	5M	CO2	L2
OR				
5a	List and explain aggregate operators with example?	5M	CO2	L1
5b	Explain the concept of nested queries? And differentiate with correlated nested queries with examples?	5M	CO2	L1
6a	What is multivalued dependency? Explain 4NF in detail?	5M	CO3	L1
6b	Explain about decomposition with example?	5M	CO3	L1
OR				
7a	What is Functional Dependency (FD)? Explain FDs using example in detail?	5M	CO3	L1
7b	Explain the properties of decomposition with example?	5M	CO3	L1

8a	Explain the concept of conflict serializability with example?	5M	CO4	L1
8b	What is recoverability? Explain all varieties of recoverable schedules?	5M	CO4	L1
	OR				
9	Explain different varieties of two-phase locking protocol (2PL)?	10M	CO4	L1,L2
10	Define index? Explain different types of indices?	10M	CO5	L1
	OR				
11	B. Explain the operations of B+ trees using a simple example?	5M	CO5	L1