R22

ANURAG Engineering College
(An Autonomous Institution)
II B.Tech II Semester Regular Examinations, June/July – 2024
DATABASE MANAGEMENT SYSTEMS
(COMPUTER SCIENCE AND ENGINEERING, INFORMATION TECHNOLOGY
&ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

Time: 3 Hours   Max. Marks: 60

Section – A (Short Answer type questions)   (10 Marks)
Answer All Questions

		Course Outcome	B.T Level	Marks
1.	What is the data model in a database system?	CO1	L1	1M
2.	List the features of the ER model?	CO1	L1	1M
3.	How views different from tables?	CO2	L1	1M
4.	State the purpose of selection operation do in Relational Algebra?	CO2	L1	1M
5.	Define trigger?	CO3	L1	1M
6.	State BCNF?	CO3	L1	1M
7.	List the properties of transactions?	CO4	L1	1M
8.	How does recovery ensure atomicity?	CO4	L1	1M
9.	Abbreviate ISAM?	CO5	L1	1M
10.	What is file organisation DBMS?	CO5	L1	1M

Section B (Essay Questions)
Answer all questions, each question carries equal marks.   (5 X 10M = 50M)

			Course Outcome	B.T Level	Marks
11.	A)	i) Discuss various levels of abstraction.	CO1	L2	5M
		ii) What is a data model? What are the different data models?			5M
		OR			
	B)	Define Entity set and define Relationship set. List and explain the symbols used to draw ER Diagram	CO1	L2	10M
12.	A)	Explain the syntax and semantics of Tuple Relational Calculus.	CO2	L2	10M
		OR			
	B)	Discuss how to alter, destroy the tables and views with example queries?	CO2	L3	10M
13.	A)	Discuss SUM, AVG, MIN, MAX, and COUNT operators with examples?	CO3	L3	10M
		OR			
	B)	Define normalization? Briefly explain 3NF, 4NF, 5NF Normal forms with example.	CO3	L3	10M
14.	A)	What is serializability? What are different types of serializabilites discuss in detail?	CO4	L3	10M
		OR			
	B)	Discuss about transaction recovery techniques.	CO4	L2	10M
15.	A)	Explain deletion and insertion operation in B+ trees	CO5	L3	10M
		OR			
	B)	Compare and contrast the Hash-Based Indexing and Tree-based Indexing.	CO5	L3	10M