PRN:		Course Code :	UCS305

Second Year **B. Tech** End Semester Examination Winter 2023

Database Management System

Day and Date: Wednesday, 06/12/2023 Max Marks: **50**

Time : 10.30 am to 12.30 PM Duration: **02** hrs

Instructions: All questions are compulsory.

		Marks	Bloom's Level	CLO
Q.1	**Attempt any two from the following**			
a)	Classify between file management system and database management system?	06	L2	CLO1
b)	Define with suitable example ER model?	06	L1	CLO3
c)	Identify different ACID properties of database management system?	06	L3	CLO3
Q.2	**Attempt any two from the following**			
a)	Explain relational model with its terminologies?	06	L2	CLO2
b)	Define relational algebra? List and explain different operations of relational algebra?	06	L1	CLO2
c)	Analyze different security constraints in database management system?	06	L4	CLO4
Q.3	**Attempt the following**			
a)	Explain 1NF, 2NF, 3NF with example?	06	L2	CLO4
b)	Identify functional dependency with its types?	07	L4	CLO3
	or			
b)	Identify file organization. Explain types of file organization?	07	L4	CLO1
Q.4	**Attempt the following**			
a)	Select and explain any two concurrency control protocols?	06	L3	CLO4
b)	Construct and explain states of transaction?	07	L2	CLO3
	or			
b)	Explain B+tree file organization with inset and delete operation?	07	L2	CLO4

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