Code No: P18CST06

R18

HALL TICKET NUMBER

PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)
II B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH/APRIL - 2023
DATABASE MANAGEMENT SYSTEM
(CSIT Branch)

Time: 3 hours   Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A
Answer all the questions in Part-A (5X2=10M)

Q.No.		Questions	Marks	CO	KL
1	a)	Write the importance of Logical data independence.	[2M]	1	
	b)	What is an Entity Relationship diagram and why it is useful?	[2M]	2	
	c)	Define Normalization.	[2M]	3	
	d)	What is Serializability in DBMS?	[2M]	4	
	e)	How does a database index work?	[2M]	5	

PART-B
Answer One Question from each UNIT (5X10=50M)

Q.No.		Questions	Marks	CO	KL
		UNIT-I			
2.	a)	With a neat diagram, explain the structure of Database Management System.	[5M]	1	
	b)	What are the roles of Database administrator?	[5M]	1	
		OR			
3.	a)	What is a Database model? List out various database models and explain any two of them.	[5M]	1	
	b)	Discuss about the advantages of DBMS.	[5M]	1	
		UNIT-II			
4.	a)	State and explain various features of E-R Models.	[5M]	2	
	b)	What is Integrity constraint? Explain different constraints with example.	[5M]	2	
		OR			
5.	a)	Define Constraint? List and explain different constraints with an example.	[5M]	2	
	b)	Discuss SQL aggregate functions with an example.	[5M]	2	
		UNIT-III			
6.	a)	What is loss less join decomposition? Give an example.	[5M]	3	
	b)	What are the steps to be followed to convert a relation in 3NF to BCNF?	[5M]	3	
		OR			
7.		What is meant by functional dependency? Discuss about second and third normal forms with example.	[10M]	3	
		UNIT-IV			
8.		What is Transaction? Explain the properties of a Transaction?	[5M]	4	
		What are the advantages of Concurrency? Discuss about Two-phase locking	[5M]	4	
		OR			
9.		Discuss about various Concurrency Control techniques in DBMS?	[5M]	4	
		UNIT-V			
10.		Write short notes on: i) Primary index ii) Secondary index iii) Hash-Based Indexing	[10M]	5	
		OR			
11.		Discuss about multilevel indexing using B+ Trees.	[10M]	5	

******