

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE  
(AUTONOMOUS)

II B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, JAN - 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) What is the role of Database Administrator?	[2M]	1	
	b) Why NULL values are needed in databases?	[2M]	2	
	c) What is a surrogate key in a database?	[2M]	3	
	d) List the properties of a Database Transaction.	[2M]	4	
	e) What is indexing in DBMS?	[2M]	5	

PART-B

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

Q.No.	Questions	Marks	CO	KL
UNIT-I				
2.	a) Discuss about the advantages of DBMS.	[5M]	1	
	b) Compare the database system with conventional file system.	[5M]	1	
OR				
3.	a) What is data independence and how does a DBMS support it? Explain.	[5M]	1	
	b) Discuss about the advantages of DBMS.	[5M]	1	
UNIT-II				
4.	a) Discuss about generalization and specialization in E-R diagrams.	[5M]	2	
	b) Explain integrity constraints over relations.	[5M]	2	
OR				
5.	a) Explain various types of joins available in SQL with examples.	[5M]	2	
	b) Discuss about sub queries with example.	[5M]	2	
UNIT-III				
6.	a) Explain the problems related to decomposition.	[5M]	3	
	b) Define Normalization. Explain BCNF with an example.	[5M]	3	
OR				
7.	a) What are the problems caused by redundantly storing information? Explain.	[5M]	3	
	b) Discuss about Properties of decompositions.	[5M]	3	
UNIT-IV				
8.	Discuss about various Concurrency Control techniques in DBMS?	[10M]	4	
OR				
9.	a) Discuss about Timestamp based Concurrency Control?	[5M]	4	
	b) Write short notes on Database Transaction Recovery management?	[5M]	4	
UNIT-V				
10.	Write short notes on: i) Primary index ii) Secondary index iii) Hash-Based Indexing	[10M]	5	
OR				
11.	What are the differences among primary, secondary and clustering indexes? Which of the indexes are dense and which are not?	[10M]	5	

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