Reg. No.								

B.Tech. DEGREE EXAMINATION, NOVEMBER 2023

Sixth Semester

18ECE472T – DATABASE MANAGEMENT SYSTEMS

(For the candidates admitted from the academic year 2020-2021 to 2021-2022)

Note:

- (i) **Part A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
- (ii) Part B & Part C should be answered in answer booklet.

	hours			Max. N			
	$PART - A (20 \times 1)$			Marks	BL	CO	P
	Answer ALL ()uesti	ons	4	1	1	1
1.	The oldest database model is	(D)	D1 . 1	1	1	7	1
	(A) Network		Physical				
	(C) Hierarchical	(D)	Relational				
2.	Arrange in order the 3 levels in the sto Highest)	schem	na architecture of DBMS (Lowest	1	1	1	1
	(A) View level, Physical level, Logical level	(B)	Physical level, Logical level, View level				
	(C) Logical level, View level, Physical level	(D)	View level, Logical level, Physical level				
3.	What is DBMS?			1	1	1	1
-	(A) It is a collection of queries	(B)	It is a high level Language				
	(C) It is a Programming Language	` ′	It stores, modifies and retrieves data				
4.	Which command is used to remove a	ı relat	ion from an SOL?	1	1	1	5
	(A) Drop Table		Delete				
	(C) Purge	(D)	Remove				
5	The rectangle divided into two parts	in a F	R diagram represents	1	1	2	3
٥.	(A) Entity set		Relationship set				
	(C) Attributes of a relationship set	\ /	1				
6.	Which of the following indicates the	max	imum number of entities that can	1	1	2	1
	be involved in a relationship	(D)	A 11 11.				
	(A) Minimum Cardinality	. ,	Maximum Cardinality				
	(C) Maximum Entity Counts	(D)	Greater Entity Counts				
7.	Key to represent relationship betwee	n tabl	e is called	1	1	2	1
	(A) Primary Key	` /	Secondary Key				
	(C) Foreign Vay	(\mathbf{D})	Simple Voy				

	1	1	2	1			
` '		` /					
Select *	from employer what type of	state	ment is this?	1	1	3	1
(C) Vi	ew	(D)	Integrity constraint				
		ated	using	1	1	3	1
		(B)	Create Data				
(C) De	efine Type	(D)	Create Type				
All agg	regate function except		ignore null values in their input	1	1	3	1
(A) Co	ount (attribute)	(B)	Count (*)				
			, ,				
A query	that is part of another is calle	ed		1	1	3	1
			Netted Ouerv				
and pro	duces another relation as an or	utput		1	1	4	1
(C) Pro	ocedural	(D)	Fundamental				
In the _individu	normal form a cal attributes	omp	osite attribute is converted in to	I	1	4	1
(A) Fin	est	(B)	Second				
(C) Th	ird	(D)	Fourth				
Which o	one of the following is a proce	dural	language?	1	1	4	1
(A) Do	main Relational Language	(B)	Tuple Relational Language				
The	operation perf	orms	a set union of two similarly	1	1	4	1
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
, ,		(B)	Join				
(C) Pro	oduct	(D)	Intersect				
Transac	tion processing is associated v	vith e	everything below except	1 =	1	5	1
` '	<u> </u>	(D)	Monitoring a data				
trig	ggering a response						
A lock	that allows concurrent transac	ctions	s to access different rows of the	1	1	5	1
			arrest annother town of the				
	pro-	(B)	Table Level Lock				
` '		` '					
	in two c (A) Fic (C) Re Select * (A) Di (C) Vi The use (A) Cr (C) De All aggr collectic (A) Cc (C) Av A query (A) Su (C) Pa Relation and proc (A) Re (C) Pro In theindividu (A) Fir (C) Th Which c (A) Do (C) Qu Thestructure (A) Un (C) Pro Transact (A) Pro (C) Co trig A lock t same tal (A) Da	in two dimensional tables called (A) Fields (C) Relation Select * from employer what type of (A) DML (C) View The user defined data type can be cre (A) Create data type (C) Define Type All aggregate function except collections (A) Count (attribute) (C) Avg A query that is part of another is called (A) Sub Query (C) Partial Query Relational algebra is a query la and produces another relation as an of (A) Relational (C) Procedural In the normal form a conditividual attributes (A) First (C) Third Which one of the following is a proced (A) Domain Relational Language (C) Query Language The operation perfective transaction processing is associated with the conforming and action or triggering a response A lock that allows concurrent transactions as a called (A) Database Level Lock	in two dimensional tables called (A) Fields (C) Relation (D) Select * from employer what type of states (A) DML (C) View (D) The user defined data type can be created (A) Create data type (A) Create data type (B) (C) Define Type (D) All aggregate function except collections (A) Count (attribute) (B) (C) Avg (D) A query that is part of another is called (A) Sub Query (B) (C) Partial Query (D) Relational algebra is aquery langua and produces another relation as an output (A) Relational (B) (C) Procedural (D) In the normal form a comprindividual attributes (A) First (B) (C) Third (D) Which one of the following is a procedural (A) Domain Relational Language (B) (C) Query Language (D) The operation performs structured tables. (A) Union (B) (C) Product (D) Transaction processing is associated with experiments are table is called (A) Database Level Lock (B)	in two dimensional tables called (A) Fields (B) Records (C) Relation (D) Keys Select * from employer what type of statement is this? (A) DML (B) DDL (C) View (D) Integrity constraint The user defined data type can be created using (A) Create data type (B) Create Data (C) Define Type (D) Create Type All aggregate function except ignore null values in their input collections (A) Count (attribute) (B) Count (*) (C) Avg (D) Sum A query that is part of another is called (A) Sub Query (B) Netted Query (C) Partial Query (D) Super Query Relational algebra is a query language that takes to relations as input and produces another relation as an output. (A) Relational (B) Structural (C) Procedural (D) Fundamental In the normal form a composite attribute is converted in to individual attributes (A) First (B) Second (C) Third (D) Fourth Which one of the following is a procedural language? (A) Domain Relational Language (B) Tuple Relational Language (C) Query Language (D) Relational Algebra The operation performs a set union of two similarly structured tables. (A) Union (B) Join (C) Product (D) Intersect Transaction processing is associated with everything below except (A) Porducing detail summary (B) Recording a business activity (C) Confirming an action or (D) Monitoring a data triggering a response A lock that allows concurrent transactions to access different rows of the same table is called (A) Database Level Lock (B) Table Level Lock	in two dimensional tables called	in two dimensional tables called	in two dimensional tables called (A) Fields (B) Records (C) Relation (D) Keys Select * from employer what type of statement is this?

	19.	If a transaction does not modify the database until it has committed it is said to use the technique.	1	1	5	1
		(A) Deferred – modification (B) Late modification				
		(C) Immediate modification (D) Undo				
	20.	The actions which are played in the order while recording is calledhistory.	1	1	5	1
		(A) Repeating (B) Redo				
		(C) Replay (D) Return				
		$\mathbf{D}\mathbf{A}\mathbf{D}\mathbf{T} = \mathbf{D}\left(\mathbf{S} \vee \mathbf{A} - 20 \mathbf{M}_{\mathbf{S}}\mathbf{A}\mathbf{B}^{*}\right)$				
		$PART - B (5 \times 4 = 20 \text{ Marks})$ Answer ANY FIVE Questions	Marks	BL	со	PO
	21	List out the major advantages and disadvantages of DBMS.	4	2	1	1
	21.	List out the major advantages and disadvantages of DBMS.		2		1
	22.	Briefly explain any four DML commands.	4	2	1	1
	23.	Explain the distinction among the terms Primary key, Candidate Key and Super Key.	4	2	2	1
	24.	Define: The concept of aggregation in ER model with an example.	4	2	3	1
	25.	Explain third normal form with an example.	4	2	4	2
	26.	Brief about serializability. What is its objective?	4	2	5	2
	27.	Discuss the solutions for concurrency related problems.	4	3	5	4
		$PART - C (5 \times 12 = 60 \text{ Marks})$				
30	, _	Answer ALL Questions	Marks	BL		PO
4 č	s. a.	With neat sketch explain in detail about two tier and three tier architecture of database.	12	2	1	1
		(OR)				
	b.	Explain the different evolution models and discuss the advantages and limitations of each.	12	3	1	1
29	. a.	Explain in detail about the conversion of ER to relational table with an example	12	2	2	4
		(OR)				
	b.	Write detailed notes on		2	2	4
		i. Mapping Cardinalities	6			
		ii. Design process of Entity Relation model	6			
30	. a.	What is Trigger? Discuss trigger in SQL in detail with examples. When should not triggers be used?	12	3	3	1
		(OR)				
	b.	With suitable syntax explain in detail about various types of integrity constraints in SQL and aggregation function.	12	3	3	4

31. a. i.	Explain about inference rules for functional dependencies.	6	2	4	1
ii.	Briefly explain First Normal Form and its significance.	6	2	4	1
b.	(OR) Explain the fundamental Operations and Queries of Relational Algebra.	12	2	4	1
32. a.	Explain concurrent scheduling algorithm to transfer amount from one account to another.	12	2	5	1
h.	(OR) Discuss the various dead lock Prevention Schemes.	12	2	5	1

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