Roll No. _____

END SEMESTER EXAMINATION
SEMESTER-IV

COURSE CODE : CSE-501 **DURATION : 3 (THREE)HRS**
COURSE TITLE : DBMS **MAXIMUM MARKS : 75**
SESSION : JULY-DEC'2021 **PASS MARKS : 35 %**

NOTE: *1. Attempt any 5 (five) questions.*
2. Mark for each question is shown against it.
3. Assume suitable logical data wherever necessary.

1.	**(a)**	Who is a DBA?	**(2)**
	(b)	What are the various functions of a DBA?	(5)
	(c)	Explain the following constraints with an example: i) not null ii) check iii) unique iv) primary key	(8)
2.	**(a)**	Define database?	(3)
	(b)	Mention six applications of DBMS?	(6)
	(c)	Describe third normal form with example?	(6)
3.	**(a)**	Explain the three schema architecture of a DBMS?	(6)
	(b)	Define attribute with an example?	(3)
	(c)	Define the following types of attributes with examples: i) composite iii) single valued iv) multivalued	(6)
4.	**(a)**	Describe four user friendly interfaces provided by the DBMS?	(4)
	(b)	Explain the properties of a transaction?	(8)
	(c)	In the context of distributed database, define the following: i) distribution transparency ii) replication transparency iii) fragmentation transparency	(3)
5.	**(a)**	In a relationship set, explain with example the following types of participations of an entity set: i) total ii) partial	(8)
	(b)	Define: i) binary lock ii) shared lock	(4)
	(c)	Write a short note on data replication and allocation?	(3)
6.	**(a)**	Describe four possible reasons for the failure of a transaction?	(6)
	(b)	Write a short note on security and authorization?	(6)
	(c)	Describe authentication?	(3)
7.	**(a)**	Define mapping cardinality?	(2)
	(b)	Describe the various mapping cardinalities?	(8)
	(c)	Write the usage of various DDL commands?	(3)
	(d)	What is a query?	(2)
8.	**(a)**	With the help of a neat diagram, explain the various major components of a database system?	(7)
	(b)	Define: i) physical data independence ii) logical data independence	(4)
	(c)	State four advantages of a relational data model?	(4)

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