

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE Supplementary Examination – Summer 2024 Course: B.Tech Semester :V Branch: Artificial Intelligence and Data Science Engineering and Allied. Subject Code and Name :Advanced Database System (BTAIPE504A) Max Marks : 60 Date: 08/07/2024 Duration : 3 Hrs.			
Instructions to the students: 1. All the questions are compulsory 2. The level of question /expected answer as per OBE or the course outcome (CO) on which the question is based is mentioned in () in front of the question 3. Use of non-programmable scientific calculator is allowed. 4. Assume suitable data wherever necessary and mention it clearly			
Q.1	Answer any two of the following	(CO)	Marks
A)	What is Relational Database system .Explain in details database design and its applications	CO1	6
B)	Write short notes on: a) Mapping Cardinality b) Concept of Super Key c) Candidate key and primary key	CO1	6
C)	What is Codd's Rule? Explain Weak Entity sets	CO1,2	6
Q.2	Answer any two of the following		
A)	What is Structure of Relational Database? Explain in detail Database Schema.	CO2	6
B)	Write a short note on a) SQL Data Definition b) SQL Join c) Null Values	CO1,2	6
C)	What is Integrity Constraints and Explain SQL Data types and Schema?	CO2	6
Q.3	Answer any two of the following		
A)	Write short notes on a) ODBC b) JDBC c) Embedded SQL	CO3	6
B)	What is Normal Forms? Explain in detail First, Second, Third and BCNF.	CO2	6
C)	Which are the functions, procedure & Trigger of good relational database in SQL.	CO4	6
Q.4	Answer any two of the following		
A)	Draw and Explain Database System Architecture diagram.	CO4	6
B)	What is difference between Data Warehousing and Data Mining.	CO4	6
C)	Write short notes on : a) Decision support system b) parallel system c) Distributed system.	CO4	6
Q.5	Answer any two of the following		
A)	What are Concurrency control techniques?	CO5	6
B)	Which are the Lock Based Protocol and Time stamp based protocol.	CO5	6
C)	Write short note on a) A simple Transaction Model b) Deadlock handling	CO5	6

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