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SNS College of Technology, Coimbatore-35.
(Autonomous)
B.E/B.Tech- Internal Assessment - II
Academic Year 2022-2023(EVEN)
Fourth Semester
19CST202&Database Management Systems
(Common to CSE, IT and AIML)

B

Time: 1.5 Hours

Maximum Marks: 50

Part-A (5 x 2 =10)

		CO	Blooms
1.	List the set operations of SQL	CO2	Und
2.	What are aggregate functions? And list the aggregate functions supported by SQL?	CO2	Rem
3.	Define Boyce Codd Normal Form .	CO3	Rem
4.	Write down the steps for Closure set of FD's.	CO3	Und
5.	Define Multi-valued Functional Dependency.	CO3	Rem

Part-B (13+13+14=40)

6.	a.	Build a mobile food delivery app with a data-centric architecture pattern using Kubernetes engine, Docker containers, and Oracle Autonomous Database.using Modern AppDev	13	CO2	App															
		(or)																		
	b.	Explain about the advanced and Embedded SQL with an example	13	CO2	Rem															
7.	a.i	Normalize the given table into Fourth Normal Form and explain it.	6	CO3	Ana															
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Std Id</th> <th>Course</th> <th>Hobby</th> </tr> </thead> <tbody> <tr> <td>121</td> <td>Computer</td> <td>Reading</td> </tr> <tr> <td>121</td> <td>Maths</td> <td>Playing</td> </tr> <tr> <td>123</td> <td>Chemistry</td> <td>Designing</td> </tr> <tr> <td>124</td> <td>Biology</td> <td>Drawing</td> </tr> </tbody> </table>	Std Id	Course	Hobby	121	Computer	Reading	121	Maths	Playing	123	Chemistry	Designing	124	Biology	Drawing			
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	ii	Normalize the given table into Fifth Normal Form and explain it.	7	CO3	Ana															
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		(or)																		

	b.	Explain the Dependencies and types used in database design with a suitable example	13	CO3	Und
8.	a.	Consider the following relation schema Works (Pname,Cname,salary) Lives (Pname,Street,City) located in (Cname, city) Manager (Pname,Mgrname) Write the SQL queries for the following i) List the names of the people who work for company Wipro along with the cities they live in ii) Find the people who work for the company "Infosys" with salary more than Rs. 50000/-. List the names of the people, along with the streets and city addresses. iii) Find the names of the persons who live and work in the same city iv) Find the names of the person who do not work for "Infosys" v) Find the average salary of "Infosys" persons	14	CO2	App
		or			
	b.	Derive the secondary rules for the given axioms 1. Union If $A \rightarrow B$ holds and $A \rightarrow C$ holds, then $A \rightarrow BC$ holds. If $X \rightarrow Y$ and $X \rightarrow Z$ then $X \rightarrow YZ$ 2. Composition If $A \rightarrow B$ and $X \rightarrow Y$ holds, then $AX \rightarrow BY$ holds. 3. Decomposition If $A \rightarrow BC$ holds then $A \rightarrow B$ and $A \rightarrow C$ hold. If $X \rightarrow YZ$ then $X \rightarrow Y$ and $X \rightarrow Z$	14	CO3	App

Rem-Remembering Und-Understanding App-Appling Ana-Analysing Cre-Creating

Prepared by

Verified by

Hod