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Internal Assessment Test 2– October 2019

Sub:	Database Management Systems					Sub Code:	17CS53	Branch:	CSE		
Date:	14/10/19	Duration:	90 min's	Max Marks:	50	Sem / Sec:		A,B & C		OBE	
Answer any FIVE FULL questions.								MARKS	CO	RBT	
1	Draw an ER diagram for BANK database schema with atleast five entities also specify primary key and structural constraints(participation constraint,cardinality)and relationships.							[10]	CO1	L3	
2 (a)	Explain the informal design guidelines used as measures to determine the quality of relation schema design							[05]	CO4	L2	
2(b)	Explain how Group by clause works. What is the difference between "**where**" and "**having**"?							[05]	CO3	L2	
3	Discuss how each of the following constructs used in SQL - (a)views and their updatability (b) Triggers							[05] [05]	CO3	L2	
4 (a)	Draw and explain 3 tier-architecture.							[05]	CO3	L2	
(b)	Explain 1NF,2NF							[05]	CO4	L2	

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Internal Assessment Test 1 – October 2019

Sub:	Database Management Systems					Sub Code:	17CS53	Branch:	CSE		
Date:	14/10/19	Duration:	90 min's	Max Marks:	50	Sem / Sec:		A,B & C		OBE	
Answer any FIVE FULL questions .								MARKS	CO	RBT	
1	Draw an ER diagram for BANK database schema with atleast five entities also specify primary key and structural constraints(Relationship and participation constraint).							[10]	CO1	L3	
2 (a)	Explain the informal design guidelines used as measures to determine the quality of relation schema design							[05]	CO4	L2	
(b)	Explain how Group by clause works. What is the difference between "**where**" and "**having**"?								CO3	L2	
3	Discuss how each of the following constructs used in SQL - (i)views and their updatability (ii) Triggers							[10]	CO3	L2	
4(a)	Draw and explain 3 tier-architecture							[05]	CO3	L2	
(b)	Explain 1NF,2NF.							[05]	CO4	L2	

CI   CCI   HOD

Answer any FIVE FULL questions	MARKS	CO	RBT

5   EMPLOYEE(Name,**Ssn**,Bdate,Address,Sex,Salary,Supervisor_ssn,Dno)
    DEPARTMENT(Dname,**Dnumber**,Mgr_ssn,Mgr_start_date)
   DEPT_LOCATION(**Dnumber,Dlocation**)
   PROJECT(Pname,**Pnumber**,Plocation,Dnum)
   WORKS_ON(**Essn,Pno**,Hours)
   DEPENDENT(Essn,Dependent_name,sex,Bdate,Relationship)
Note: Attribute 'Dependent_name' is a partial key.
(a) Write relational algebra expressions for the following problems:
(i)   Find the names of employees who work on all projects controlled by department no.4
(ii)   Retrieve the name and address of all employees who work for the 'Research' department
(iii)   List the name of all managers with at least one dependent.
	[05]	CO2	L3

(b) Write SQL queries for the following problems: (i)List the name of all employees who have two or more dependents. (ii) Retrieve the names of employees who have no dependents(USE EXISTS) (iii)Print details of department that has less than 5 people working in it.	[05]	CO3	L3
6 (a) Explain functional dependency with example and demonstrate its representation.	[05]	CO4	L2
(b) What are the different kinds of join operations in relational algebra? Explain each with example	[05]	CO2	L1