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Internal Assessment Test 1 – September 2019

Sub:	Database Mana	ngement Syste	ms			Sub Code:	17CS53	Bra	nch:	CSE		
Date:	7/9/19	Duration:	90 min's	Max Marks:	50	Sem / Sec:	A,E	3 & C	1		OB	BE
	Answer any FOUR FULL Questions from Q1 to Q5,Q6 is COMPULSORY.									RKS	CO	RBT
1 (a)	With reference	to database	system env	rironment, desc	ribe	the compone	ent of DBMS	and	[10]	CO1	L2
	their interaction	n, with the he	elp of a diag	ram.								
2 (a)	What is the diff	ference between	een logical i	ndependence ar	nd ph	ysical data ir	ndependence?		[(05]	CO1	L1
(b)	What are diffe	erent databas	e schema lar	nguages and into	erfac	es?			[(05]	CO1	L1
, ,	,											
3 (a)	a) Explain how the different update operations deal with constraint violations.							[(05]	CO1	L2	
(b)	Explain the bas	sic constrain	ts that can l	be specified in	SQL	as part of t	able creation v	with	[(05]	CO1	L2
	example.											
()	Consider the re								[(04]	CO2	L3
	EMPLOYEE(<u>e</u>	<u>mp_id</u> ,name	e)									
	ASSIGNED_T	O(projectno,	emp_id)									
	PROJECT(pro	jectno ,projed	ct_name)									
	Express the following queries in Relational Algebra.											
	i)Get details of employee working on both P354 and P345 project numbers.											
	ii)Find the emp	loyee numbe	er of employ	ee who do not v	vork	on project Po	678					

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Internal Assessment Test 1 – September 2019

	internal Assessment Test 1 – September 2017											
Sub:	Database Mana	gement Syste	ms			Sub Code:	17CS53	Bra	nch:	CSE		
Date:	7/9/19	Duration:	90 min's	Max Marks:	50	Sem / Sec:	A,I	3 & C			OB	BE
	Answer any FOUR FULL Questions from Q1 to Q5,Q6 is COMPULSORY.									RKS	CO	RBT
1 (a)	1 (a) With reference to database system environment ,describe the component of DBMS and their interaction, with the help of a diagram.							10]	CO1	L2		
2 (a)	What is the diff	erence between	een logical i	ndependence an	nd ph	ysical data ir	ndependence?		[()5]	CO1	L1
(b)) What are different database schema languages and interfaces ?								[05]		CO1	L1
3 (a)	Explain how the different update operations deal with constraint violations.								[()5]	CO1	L2
(b)	Explain the basic constraints that can be specified in SQL as part of table creation with example.							with	[()5]	CO1	L2
4 (a)	Consider the re- EMPLOYEE(e) ASSIGNED_TO PROJECT(pro) Express the foll i)Get details of ii)Find the emp	mp_id,name O(projectno, iectno,project lowing queri employee w	emp_id) ct_name) es in Relatio orking on bo	oth P354 and P3	_	_)]	04]	CO2	L3

	Answer any FOUR FULL Questions from Q1 to Q5,Q6 is COMPULSORY.	MARKS	CO	RBT
(b)	Explain create, insert, delete and update, drop, alter statements in SQL with example.	[06]	CO3	L2
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)	[04]	CO1	L3
(a)	Note: Attribute 'Dependent_name' is a partial key. Draw an ER diagram for the above "COMPANY" database.			
· /	Draw schema diagram for above database	[02]	CO2	L3
(c)	(i)Write an SQL query to find the details of employees who do not work on project P3 ii) Write an SQL query to list the employee names whose name contains the letter 'b'	[04]	CO3	L3
	For the Company database given in question number 5 ,Write SQL query for the following.			
(a)	List female employees from DNo =20 earning more than 50000.	[02]	CO3	L3
(b)	Retrieve the names and ssn of employees who have no dependents	[02]	CO3	L3
\ /	Each project on which more than 2 employees work, retrieve the project number ,project name and number of employees who work on the project.	[02]	CO3	L3
(d)	For each dept,retrieve the dept number,number of employees in dept,and their average salary.	[02]	CO3	L3
(e)	For each dept that has more than five employees, retrieve the dept number and the number of employees who are making more than \$40000.	[02]	CO3	L3

	Answer any FOUR FULL Questions from Q1 to Q5,Q6 is COMPULSORY.	MARKS	CO	RBT
(b)	Explain create, insert, delete and update, drop, alter statements in SQL with example.	[06]	CO3	L2
5 (a)	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. Draw an ER diagram for the above "COMPANY" database.	[04]	CO1	L3
	Draw schema diagram for above database.	[02]	CO2	L3
(c)	(i)Write an SQL query to find the details of employees who do not work on project P3 ii) Write an SQL query to list the employee names whose name contains the letter 'b'	[04]	CO3	L3
6	For the Company database given in question number 5, Write SQL query for the following.			
(a)	List female employees from DNo =20 earning more than 50000.	[02]	CO3	L3
(b)	Retrieve the names and ssn of employees who have no dependents	[02]	CO3	L3
\ /	Each project on which more than 2 employees work, retrieve the project number ,project name and number of employees who work on the project.	[02]	CO3	L3
\ /	For each dept,retrieve the dept number,number of employees in dept,and their average salary.	[02]	CO3	L3
\ /	For each dept that has more than five employees, retrieve the dept number and the number of employees who are making more than \$40000.	[02]	CO3	L3