Register Number									

Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam – 603 110

(An Autonomous Institution, Affiliated to Anna University, Chennai)

Department of Computer Science and Engineering

Continuous Assessment Test – I

Question Paper

Degree & Branch	B.E. CSE				**Semester**	IV
Subject Code & Name	UCS1404 Database Management Systems				**Regulation: 2018**	
Academic Year	2020-2021	**Batch**	2019-2023	**Date**	**19.02.2021**	**FN 11.00 to 11.40 PM**
Time: 40 Minutes	**Answer All Questions**				**Maximum: 20 Marks**	

Part – B Answer all the questions (2×10 = 20 Marks)

<K2>	1. a) Given the schema, define the following relations with appropriate constraints using DDL statements: **(3+3)** **Employee (SSN, fname, lname, address, email, dob, gender, job, salary, dno)** **Department (Dnumber, name, dmgr_no, mgr_start)** where dmgr_no is the department manager number who is also an employee, mgr_start is the starting date of that employee as manager for that department. State your assumptions on domain and key constraints to the above relations. b) Consider the following relations for a database that keeps track of student enrollment in courses and the books adopted for each course: **(4)** **STUDENT (SSN, Name, Major, Bdate)** **COURSE (Course#, Quarter, Grade)** **ENROLL (SSN, Course#, Quarter, Grade)** **BOOK_ADOPTION (Course#, Quarter, Book_ISBN)** **TEXT (Book_ISBN, Book_Title, Publisher, Author)** Specify the foreign keys for this schema, stating any assumptions you make.	<CO2>
	(OR)	
<K2>	2. Discuss the integrity constraints (domain, key, entity integrity, referential integrity) supported in Relational database. Explain each constraint with suitable example. **(10)**	<CO2>
<K3>	3. Consider the following Employees schema. **(3+3+4)** **Employees(employee_id number(6), first_name VARCHAR2(20), last_name VARCHAR2(25), email VARCHAR2(25), phone number VARCHAR2(20), hire_date DATE, job_id VARCHAR2(10), salary NUMBER(8,2), commission_pct NUMBER(2,2), manager_id NUMBER(6), department_id NUMBER(4))**	<CO2>

	Write each of the following queries in SQL. a) Display the details of employees (id, first name, hire date, job id, salary and dept id) other than sales representatives (SA_REP) who are hired after '01-MAY--1999' or whose salary is at least 10000. b) Display the employee details (first name, salary, hire date and dept id)whose salary falls in the range of 5000 to 15000(inclusive) and his/her name begins with any of characters (A,J,K,S). Sort the output by first name. c) Display the minimum, maximum and average salary, number of employees for each department. Exclude the employee(s) who are not in any department. Include the department(s) with at least 2 employees and the average salary is more than 10000. Sort the result by minimum salary in descending order.	
	(OR)	
<K3>	4. Consider the schema given in 1.a. Write the following UPDATE operations: **(1+3+3+3)** a) Insert the new employee <216352, 'Abinav', 'Kumar', '14-apr-82', 'clerk', 18000>. Assume that the values of <address, email, gender, dno> columns are not mandatory to insert a new employee. b) Change the salary of employees who born after 01st Jan 1975 by incrementing with 5%. c) A new department is created with dno=15. Assign the employee(s) who are {clerk, supervisor} but not in any department to the new department. d) Remove the employee(s) whose name ends with *n* and does not belongs to dno=15.	<CO2>

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