United College of Engineering and Research, Prayagraj

Database Management System (KCS-501)

Assignment-2

Q. No.	Question	CO	Bloom's level
1.	Write difference between Cross Join, Natural Join, left outer join and right outer join with suitable example.	CO2	L1
2.	Give the following queries in the relational algebra using the relational schema: student(id, name) enrolled(id, code) subject(code, lecturer) a) What are the names of students enrolled in cs3020? b) Which subjects is Hector taking? c) Who teaches cs1500? d) Who teaches cs1500 or cs3020? e) Who teaches at least two different subjects? f) What are the names of students in cs1500 or cs307? g) What are the names of students in both cs1500 and cs1200?	CO2	L4
3.	Consider the following relational DATABASE. Give an expression in SQL for each following queries Underline records are Primary Key Employee(person_name , street , city) Works(person_name, Company_name ,salary) Company(Company_name , city) Manages(person_name, manager_name) a) Finds the names of all employees who works for the ABC bank b) Finds the name of all employees who live in the same city and on the same street as do their managers c) Find the name street address and cities of residence of all employees who work for ABC bank and earn more than 7,000 per annum. d) Find the name of all employee who earn more than every employee of XYZ. e) Give all Employees of corporation ABC a 7% salary raise . f) Delete all tuples in the works relation for employees of ABC. g) Find the name of all employees in this DATABASE who live in the same city as the company for which they work.	CO2	L4
4.	Suppose there are two relations	CO2	L3

	R(A, B, C), S(D, E, F) Write TRC and SQL for the following RAs i) $\Pi_{A,B}$ (r) ii) $\sigma_{B=45}$ (r) iii) $\Pi_{A,F}$ ($\sigma_{C=D}$(r x s))		
5.	What is Trigger? Explain different trigger with example.	CO2	L1
6.	Consider the following relation. The Primary key is Rollno, Isbn. Student(RollNo, Name, Branch), Book(Isbn, Title, Author, Publisher) Issue(Rollno, Isbn, te_of_issue). Write the query in Relational algebra and SQL of the following:- i) List the Roll Number and Name of All CSE Branch Student. ii) Find the name of students who have issued a book of publication 'BPB'. iii) List the title and author of all books which are issued by a student name started with a. iv) List the title of all books issued on or before 20/09/2012. v) List the name of student who will read the book of author named 'Sanjeev'.	CO2	L4
7.	Explain embedded SQL and dynamic SQL in detail.	CO2	L2