



Bangladesh Army University of Engineering & Technology (BAUET)

Department of Computer Science and Engineering (CSE)

ClassTest-01

Semester: Summer-2024

Course Title: Database Management Systems

Time: 30 Minutes

Batch: CSE-16A & 16B

Course Code: CSE-2211

Full Marks: 15

	Marks
Q.1 Illustrate the data redundancy and inconsistency with the necessary example. [CO-1, C2]	2
Q.2 Differentiate between DELETE and TRUNCATE SQL command in database systems. Explain which one is better you think. [CO-1, C1]	3
Q.3 Differentiate between strong entities and weak entity sets in the ER model. How are weak entities represented in an ER diagram? [CO-2, C2]	5
Q.4 Illustrate the following with the suitable examples: [CO-2,C2]	5
i. Entity	
ii. Relationship	
iii. Attribute	



Bangladesh Army University of Engineering & Technology (BAUET)

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Class Test-02 (Imp.)

Semester: Summer-2024

Batch: CSE-16

Course Code: CSE-2211

Course Title: Database Management Systems

Full Marks: 15

Time: 15 Minutes

		Marks
Q.1	i). Illustrate the string matching operators in SQL.	2
	ii). Demonstrate the purpose of nested queries in database system. [CO3-C2]	3
Q.2	Consider the following database schema; construct the expressions in SQL for each of the below queries. [CO3-C3]	10
	<i>person</i> (driver id, name, address)	
	<i>car</i> (license, model, year)	
	<i>accident</i> (report number, date, location)	
	<i>owns</i> (driver id, license)	
	<i>participated</i> (report number, license, driver id, damage amount)	
	i). Add a new accident to the database; assume any values for required attributes.	
	ii). Update the <u>damage</u> amount for the car with the license number "AABB2010" in the accident with report number "AR2197" to \$3000.	
	iii). Find the total number of people who owned cars that were involved in accidents in 2020.	
	iv). Delete the Mazda belonging to "John Smith".	
	v). Find the number of accidents in which the cars belonging to "John Smith" were involved.	



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Batch: CSE-16

Class Test-02

Semester: Summer-2024

Course Code: CSE-2211

Course Title: Database Management Systems

Full Marks: 15

Time: 15 Minutes

	Marks
Q.1 Illustrate the <i>GROUP BY</i> and <i>HAVING</i> clause in SQL. [CO3-C2]	3
Q.2 Consider the following database schema construct the following SQL query: [CO3-C3]	12
<i>Teacher</i> (<i>T_id</i> , <i>T_name</i> , <i>dept_name</i> , <i>city</i> , <i>salary</i>)	
<i>Department</i> (<i>dept_name</i> , <i>building</i> , <i>budget</i>)	
i). Find the name of the teacher whose department is CSE and lives in Natore.	
ii). Find those departments where the average salary of the teachers is more than 60,000.	
iii). Delete all tuple in the teacher relation for those teachers associated with a department located in the Nexus building.	
iv). Find those departments for teachers which the average salary is greater than or equal to the average salaries of industrial and production department.	
v). Add a new column (column name is dept_color) to the department relation.	
vi). Give a 5 percent salary raise to teachers whose salary is less than average salary of all teacher.	



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Department of Computer Science and Engineering (CSE)

Batch: CSE-16

Class Test-03

Semester: Summer-2024

Course Code: CSE-2211

Course Title: Database Management Systems

Full Marks: 15

Time: 15 Minutes

	Marks
Q.1 Explain the restrictions of database views. [C03-C2]	3
Q.2 Consider the following database schema construct the following SQL query: [C03-C3]	12
<i>Students(S_id, name, dept_name, district, age)</i>	
<i>Course(C_id, title, S_id)</i>	
i). Inner join	
ii). Left outer join	
iii). Right outer join	
iv). Full outer join	



Bangladesh Army University of Engineering & Technology (BAUEI)

Department of Computer Science and Engineering (CSE)

Batch: CSE-16A & 16B

ClassTest-04

Semester: Summer-2024

Course Code: CSE-2211

Course Title: Database Management Systems

Full Marks: 15

Time: 25 Minutes

Marks

- Q.1 Compare the main differences between Dense and Sparse indexing techniques in DBMS. 4
- Q.2 Illustrate Bucket overflow in the hashing technique. Mention the names of different types of collision resolution techniques. 4
- Q.3 Consider the B+ tree index shown below. Delete key 60 from the tree and display the new tree structure. 7

