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P P SAVANI UNIVERSITY

Third Semester of Diploma Studies Examination
November 2022

IDCE2020 Database Management System

23.11.2022, Wednesday

Time: 10:00 a.m. To 12:30 p.m.

Maximum Marks: 60

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

Q - 1	MCQ/Short Question/Fill in the Blanks (Any Five)	[05]	CO	BTL
(i)	In which of the following formats data is stored in the database management system? a) Image b) Text c) Table d) Graph		1	1
(ii)	Architecture of Database can be viewed as a) two Level b) Four Level c) three Level d) One Level		1	1
(iii)	The database Schema is Written in a) HLL b) DML c) DDL d) DCL		1	1
(iv)	Which operator is used to compare the NULL values in SQL? a) Equal b) IN c) IS d) None of Above		3	2
(v)	All aggregate functions except _____ ignore null values in their input collection. a) Count(attribute) b) Count(*) c) Avg d) Sum		3	2
(vi)	Drop Table cannot be used to drop a table referenced by a..... constraint. a) Local Key b) Primary Key c) Composite Key d) Foreign Key		2	1
(vii)	In SQL, which command is used to remove a stored function from the database? a) REMOVE FUNCTION b) DELETE FUNCTION c) DROP FUNCTION d) ERASE FUNCTION		1	1
Q - 2 (a)	Explain Data Independency with diagram.	[05]	2	1
Q - 2 (b)	Difference between File Management and DBMS.	[05]	1	4
OR				
Q - 2 (a)	Describe an architecture of DBMS.	[05]	1	1
Q - 2 (b)	Difference between Specialization and Generalazation.	[05]	1	4
Q - 3 (a)	Explain following term with syntax and example: Insert, Update, Delete	[05]	2	3
Q - 3 (b)	Explain E-R diagram with its symbol.	[05]	1	1
OR				
Q - 3 (a)	Explain primary key and foreign key constraints.	[05]	3	2
Q - 3 (b)	Draw E-R diagram for library management system using suitable entity and relationship.	[05]	1	6
Q - 4	Attempt Any five question. Write the queries of following questions from the given schema table: EmployeeInfo (EmpID, EmpName, Department, Salary, City, DOB, Gender)	[05]	3	6
	1. Create above table of employeeInfo with give datatype and size.			
	2. Insert one recorde in above table: (110, Swati Garg, HR, 25000, Delhi, 06/04/1991, Female)			
	3. Change the salary 35000 of that employee who se EmpID is 105.			

4. Remove that employee record which department is IT.
5. Write a query to find all the employees whose salary is between 50000 to 100000.
6. Write a query to find out employees whose have maximum salary of employee.
7. Write a query to get the number of employees working in the department 'HR'.
8. Write a query to get the details of employees whose EmpName ends with 'A'.

SECTION - II

Q - 1	MCQ/Short Question/Fill in the Blanks (Any Five)	[05]		
(i)	Give the full form of SQL		1	1
(ii)	Define query.		1	1
(iii)	What is Function Dependency?		1	1
(iv)	What is an Entity?		4	1
(v)	Define ER Diagram.		4	1
(vi)	Define tuple.		5	1
(vii)	List out basic database operations.		1	1
Q - 2 (a)	Explain selection and projection operation in detail.	[05]	2	2
Q - 2 (b)	Explain deadlock in detail.	[05]	2	2
OR				
Q - 2 (a)	Explain properties of transaction in detail.	[05]	3	2
Q - 2 (b)	Explain transaction states of processing.	[05]	3	2
Q - 3 (a)	What is Attribute? Explain types of Attribute with example and symbol.	[05]	4	3
Q - 3 (b)	Explain Normalization from 1NF, 2NF and 3NF with example.	[05]	4	4
OR				
Q - 3 (a)	Explain ACID Property.	[05]	5	3
Q - 3 (b)	What is constraint? Explain different types of constraints in detail.	[05]	4	4
Q - 4	Attempt any one.	[05]		
(i)	Explain three concurrency control problem with example.		5	4
(ii)	What is joins? Explain different types of joins in detail.		5	5

CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create