

PAPER: DATABASE AND HUMAN COMPUTER INTERFACES

SPECIALITY: COMPUTER ENGINEERING

OPTION: DATABASE MANAGEMENT

EXAM PAPER: DATABASE AND HUMAN COMPUTER INTERFACES

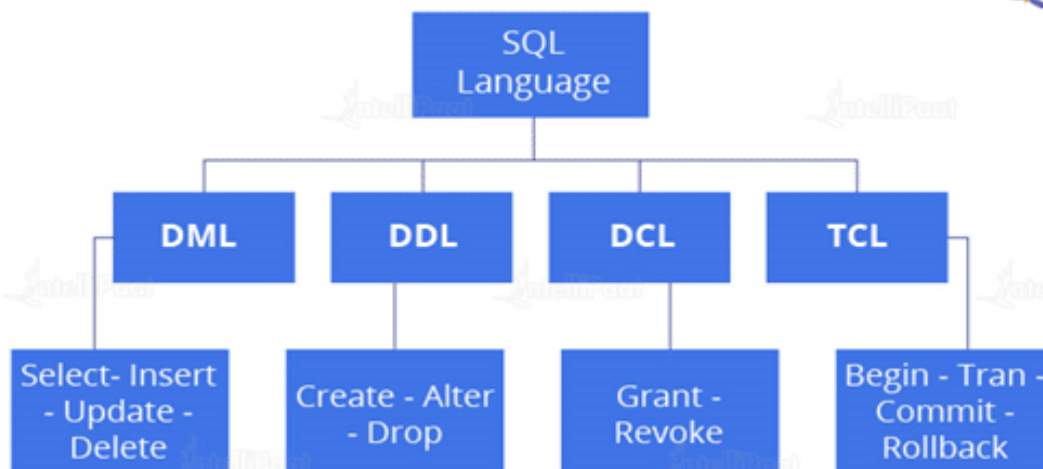
CREDIT VALUE :4

DURATION :4 HOURS

NATURE OF EXAM: WRITTEN

SECTION A: Database Scripting - 40mks

1. - Define the following
 - a) Define PHP 5 ?
 - b) Static Websites.
 - c) Dynamic Websites ?
 - What are the Data Types in PHP? (2+2+2+4mks)
2. Explain the different types of SQL commands below. (10mks)



3. - Explain what a Primary key and a Foreign Key is? Provide an example query for each key each.
 - How would you find the second highest salary from the following table?

e_id	e_name	E_salary	e_age	e_gender	e_dept
1	Sam	95000	45	Male	Operations
2	Bob	80000	21	Male	Support
3	Anne	125000	25	Female	Analytics
4	Julia	73000	30	Female	Analytics
5	Matt	159000	33	Male	Sales
6	Jeff	112000	27	Male	Operations

- What are the types of relationships in SQL Server databases? **(6+2+2mks)**
- 4. - What is the difference between DROP and TRUNCATE commands? **(5mks)**
 - What is AUTO_INCREMENT? Provide a query example. **(5mks)**

SECTION B: Human Computer Interfaces – 30mks

1. Define the following as used in HCI (8marks)
 - a. Human
 - b. Interface
 - c. Unimodal interface
 - d. Multimodal interface
2. Compare the 3 basic HCI (giving the advantages and the disadvantages of each) (6marks)
3. List 3 advanced human computer interfaces (3marks)
4. What is user centered design? (2marks)
5. Give the user center design principles (4marks)
6. Give the advantages and disadvantages of user centered design (5marks)
7. The nature of the HCI can affect the user using it. Explain the effects of a HCI on a user. (5 marks)

SECTION C: Database language and Interfaces – 30mks

1. How can you insert data into your database using DML? 2mks
2. Can you delete data from a table using DML? If yes, then how? 2mks
3. What do you need to consider before deleting a row or column from a database? 3mks
4. What does truncate mean in context with DML operations? 2mks
5. What's the difference between truncating and dropping a table? 2mks
6. What happens if a transaction fails while processing multiple statements? 2mks
7. What is a DBMS Interface? 2mks
itself.
8. Name and describe 4 types of DBMS interfaces 8mks
User-friendly interfaces provided by DBMS may include the following: (choose any four)
9. What is Data Definition Language (DDL)? 2mks
10. What are some three examples of DDL commands? 3mks
11. What happens when you click on a “submit” button in a browser? 2mks