

[6]

Or

Differentiate between normalization and denormalization.

4. What is cursor ? Discuss the parameterized cursor with example.

Or

Write a database trigger before insert/update/delete for each statement not allowing any of these operations on the table emp on Saturday and Sunday.

5. Explain the query processing with example.

Or

Describe the indexes and hashing techniques in detail.

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Roll No.....

M.Sc. I Semester Examination, April-2021

INFORMATION TECHNOLOGY

Paper II

(RDBMS and SQL)

Time : 3 Hours]

[Maximum Marks : 100

Note : All questions are compulsory. Question Paper comprises of 3 sections. **Section A** is objective type/Multiple Choice questions with no internal choice. **Section B** is short answer type with internal choice. **Section C** is long answer type with internal choice.

SECTION 'A'

1×10=10

(Objective Type Questions)

Choose the correct answer :

1. The term “Data” refers to :
- (a) The electronic representation of the information (or data)
 - (b) Basic information
 - (c) Row Facts and figures
 - (d) Both A and C

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- (c) CREATE CURSOR cursor_name AS
select_statement
- (d) CURSOR cursor_name AS select_statement

SECTION 'B' **6×5=30**

(Short Answer Type Questions)

Note : Answer the following questions in 250 words.

1. Define data, information and knowledge with example.

Or

Discuss the type of database languages

2. What is attributes ? Write the types of attributes also.

Or

Discuss the domain relational calculus with example.

3. Describe the integrity constraints with example.

Or

Explain the trigger with example.

4. Write a procedure to print the multiplication table.

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7. Which of the following refers collection of the information stored in a database at a specific time ?
- (a) Independence
(b) Instance of the database
(c) Schema
(d) Data domain
8. What is the relation calculus ?
- (a) It is a kind of procedural language
(b) It is a non-procedural language
(c) It is a high-level language
(d) It is Data Definition language
9. Which of the following keys is generally used to represents the relationships between the tables ?
- (a) Primary key (b) Foreign key
(c) Secondary key (d) None of the above
10. Which of the following is the correct syntax for creating an explicit cursor ?
- (a) CURSOR cursor_name IS select_statement
(b) CREATE CURSOR cursor_name.IS.
select_statement;

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2. Which of the following refers to the number of tuples in a relation ?
(a) Entity (b) Column
(c) Cardinality (d) None of the above
3. Which of the following is a top-down approach in which the entity's higher level can be divided into two lower sub-entities ?
(a) Aggregation (b) Generalization
(c) Specialization (d) All of the above
4. In a relation database, every tuples divided into the fields are known as the..... .
(a) Queries (b) Domains
(c) Relations (d) All of the above
5. Which of the following refers to the number of attributes in a relation ?
(a) Degree (b) Row
(c) Column (d) All of the above
6. Which one of the following commands is used for removing (or deleting) a relation forms the SQL database ?
(a) Delete (b) Drop
(c) Remove (d) All of the above

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Or

Write a PL/SQL program to find the factorial of any inputted number.

5. How to protect database ?

Or

Discuss the assertion in brief.

SECTION 'C'

12×5=60

(Long Answer Type Questions)

Note : Answer the following questions in 500 words.

1. Describe the architecture of database.

Or

Explain the data model in detail.

2. Explain an ER-model with example. How you convert an ER-model to relational scheme.

Or

Explain the different types of joins with example.

3. Explain INSERT, UPDATE and DELETE with example.

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