

Scheme - I

Sample Question Paper

Program Name : Diploma in Information Technology
Program Code : IF
Semester : Fourth
Course Title : Database Management
Marks : 70

22416

Time: 3 Hrs.

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following.

10 Marks

- a) Define Relational Database.
- b) State use of
 - i. Save point
 - ii. Roll back
- c) Define View state its uses.
- d) Compare Function and Procedure. (Any 2 Points)
- e) Enlist Types of Database Failures.
- f) State Database Security. Give its importance.
- g) Enlist Arithmetic and logical operators. (Any 2 each)

Q.2) Attempt any THREE of the following.

12 Marks

- a) Define following terms.
 - i. Cardinality
 - ii. Domain
 - iii. Tuple
 - iv. Degree
- b) Describe following types of Join with suitable Venn Diagram.
 - i. Inner Join
 - ii. Outer Join
- c) Create a sequence for following specifications.

- Name : DB_SEQ
- Starting Value : 1
- Maximum Value : 10
- Increment By: 2

d) Consider following schema

Employee (E_id, E_name, Salary, Department)

Write SQL commands for following statement.

- i. Find Summation of salary for all employees.
- ii. Display Minimum and Maximum Salary.
- iii. Display all record in descending order of Employee name.
- iv. Display employee name working in department “Quality”

Q.3) Attempt any THREE of the following.

12 Marks

- a) Write PL/SQL code to check whether entered number is even or odd.
- b) Describe ACID properties of Transaction.
- c) Describe any two Date functions with suitable example.
- d) Write SQL Statement to perform following operation.
 - i. Create Synonym for Hotel table to HM.
 - ii. Create an Index on Hotel Table, use H_id as index attribute.

Q.4) Attempt any THREE of the following.

12 Marks

- a) Define Cursor. Give Significance of following block.
 - Create Cursor
 - Open Cursor
 - Close Cursor
- b) Define Index. Give Salient difference between simple index and composite index.
(Any 2 points)
- c) Consider following schema:

Employee (E_id, First_name, Last_name, Salary, Department)

Write SQL commands for following statement.

 - i. Find length of employee names.
 - ii. Concatenate first name and last name of employee.
 - iii. Left pad each department name with “***”.
 - iv. Right pad each department name with “\$\$\$”.
- d) Describe working of Lock base concurrency control.
- e) Write PL/SQL program to find factorial of user defined number.

Q.5) Attempt any TWO of the following.

12 Marks

- a) Create table for following schema.
 - i. Student (Enroll_no, Roll_no, Name, Percentage);
 - ii. Worker(W_id, W_name, Joining_Date, Department)
 - iii. Book (Book_id, Book_name, Author, Price, ISBN)
- b) Consider given Schema. Write SQL Command for following statement.
Product (P_id, Name, Quantity, Price);
Supplier(S_id, S_name, P_id, Contact_no)
Manufacturer(M_id, M_name, Owner, City)
 - i. Increase Price of all products by 20% having product id *P-123*.
 - ii. Change contact_no for S-123 supplier with new number as “9876543210”.
 - iii. Add following record for new manufacturer.
Id = 123, name = xyz, Owner = jack, city = Delhi
 - iv. Display records of products supplied by supplier S-125.
 - v. Eliminate Supplier with Supplier id S-126.
 - vi. Display all manufacturers whose name starts with ‘A’.
- c) Write a trigger which invokes on deletion of record on Student table.

Q.6) Attempt any TWO of the following.

12 Marks

- a) Write SQL Commands for following statements.
 - i. Create user *Jack* having password as ‘*MSBTE@123*’.
 - ii. Assign create and update privileges to ‘*Jack*’.
 - iii. Remove Update privileges from ‘*Jack*’.
- b) Write PL/SQL procedure / Function for following statements.
 - i. Create a procedure to greet a user with his name.
 - ii. Write Function to perform square of user defined number.
- c) Write SQL Commands to perform following operations on View.
 - i. Create a view to fetch enrollment number, name, and percentage from student table and name it as *S_View*.
 - ii. Display record from *S_View* where percentage is greater than 60.
 - iii. Delete view named as *S_view*.

Scheme - I

Sample Test Paper - I

Program Name : Diploma in Information Technology
Program Code : IF
Semester : Fourth
Course Title : Database Management
Marks : 20

22416

Time: 1 Hour

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR.

08 Marks

- a) Enlist different types of RDBMS software.
- b) Differentiate between drop and truncate.
- c) Describe Group by clause with example
- d) Define DML. List different DML Command
- e) Define view. Give its significance.
- f) Describe Rename Command with its syntax.

Q.2 Attempt any THREE.

12 Marks

- a) Write SQL Statement for following:
 - i. Create table Vehicle with attribute (V_id, Chassis_No, Type, Number_Of_Wheels) use Chassis_No as primary key.
 - ii. Add one attribute to Vehicle Table as (Number_Of_Axle) .
- b) Consider following Schema and perform specified join operations.
Emp(E_id, E_Name, D_id, Manager)
Department (D_id, D_name, Location)
 - i. Perform Inner join on above table.
 - ii. Perform Left Join on Department and Emp Table.
- c) Consider schema Candidate (C_id, Seat_no, Name, Score, City) Write SQL Command for following
 - i. Display Candidate who scored between 60 and 70 Marks.
 - ii. Display Candidate whose city is either Pune or Mumbai.
 - iii. Produce record of candidate who belongs to Nashik and scored more than 60 marks.
 - iv. Change the city of candidate C_10 from Pune to Mumbai.
- d) Write syntax for following.
 - i. Create view for more than one table.
 - ii. Drop view

Scheme - I

Sample Test Paper - II

Program Name : Diploma in Information Technology
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Semester : Fourth
Course Title : Database Management
Marks : 20

22416

Time: 1 Hour.

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR.

08 Marks

- a) Draw block structure of PL/SQL.
- b) List different types of Database Users and Privileges.
- c) Define cursor. State its types.
- d) Compare predefined exceptions and user defined exceptions.
- e) Define Index give its types.
- f) Describe Revoke command. Give its syntax.

Q.2 Attempt any THREE.

12 Marks

- a) Write syntax to create a trigger. Describe [After| Before| Instead of] Options.
- b) Draw State Diagram of transaction. Describe each state.
- c) Describe Parametrized cursor with example.
- d) List causes of database failures. State any two importance of Backup.