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**SARDAR PATEL UNIVERSITY**  
**M.Sc.(Information Technology) - FIRST SEMESTER**  
**PS01CINT23 (RDBMS & Client Server Computing)**  
**25<sup>th</sup> March 2019, Monday**

Time: 10 am To 1 pm

Marks: 70

**Q1. Give Answers of following Multiple Choice Questions.****[08]**

- 1 A \_\_\_\_\_ command ends the transaction but undoes any changes made during the transaction  
 (A) ROLLBACK ; (B) COMMIT; (C) SAVE POINT; (D) None of given
- 2 The \_\_\_\_\_ clause can be used in conjunction with the GROUP BY clause to impose a condition on it.  
 (A) WHERE (B) CHECK (C) HAVING (D) None of given
- 3 The \_\_\_ lock is placed on resources whenever a READ operation is performed.  
 (A) Exclusive (B) READ (C) Shared (D) None of given
- 4 \_\_\_\_\_ Command is used to modify the values of a given table.  
 (A) Update (B) Modify (C) Alter table (D) None of given
- 5 In a \_\_\_\_\_ system, all databases are of same type.  
 (A) Client/server distributed database (B) Homogeneous distributed database  
 (C) Heterogeneous distributed database (D) None of given
- 6 \_\_\_\_\_ is the process of extracting the knowledge or design blueprints from anything man-made.  
 (A) Reengineering (B) Reverse engineering (C) Forward engineering (D) None of given
- 7 The \_\_\_\_\_ statement allows various types of access to database objects to other user.  
 (A) Grant (B) Commit  
 (C) Revoke (D) None of given
- 8 In phase 3 of 3PC, coordinator sends \_\_\_\_\_ message to all participating sites.  
 (A) commit/abort (B) partitioning (C) decision (D) None of given

**Q2. Answer the following questions: [Any SEVEN]****[14]**

- 1 List out at least 8 rules of Dr. E.F. CODD.
- 2 Differentiate clearly Physical data independence & Logical data independence.
- 3 Write the use of table DUAL.
- 4 What is Trigger?
- 5 Write the difference between Trigger and Stored procedure.
- 6 Define terms: Heterogeneous services, Transparent gateway agents
- 7 Explain Procedural Programming.

- 8 What is event-driven programming? Write any two ways of triggering event. [6]
- 9 Define: Reverse Engineering. Give categories of its applications. [6]
- Q3. A. Explain Homogeneous Distributed Database System with example [6]  
B. What is normalization? Explain it up to 2NF with example [6]  
**OR**
- B. Explain 3-Tier Client-Server Computing Model. [6]
- Q4. A. Explain briefly the PL/SQL block structure. [6]  
B. Explain Client-Server database architecture [6]  
**OR**
- B. Write the advantages of PL/SQL over SQL. [6]
- Q5. A. Write SQL commands for the following. (Any THREE) [6]  
i. To create a table MAST having fields (MNO number(2,0), DNO number(1,0), MNAME varchar2(15)), where MNO is primary key and DNO is foreign key referencing TNO of table TRANS.  
ii. To display the records of a table EMP whose ENAME starts with character A.  
iii. To take back all permission given on table EMP from user XYZ.  
iv. To display the records in descending order of TMARKS of a table STUD.
- B. Write a function named FSUB, which returns subtraction of two numbers. [6]  
Write a PL/SQL block code, which reads two numbers and using above function FSUB, calculates subtraction of that two numbers and print the result.
- OR**
- B. Explain briefly Error handling in PL/SQL. [6]
- Q6. A. Write short note on Cursor, including its meaning, types and attributes. [6]  
B. Explain briefly the meaning of concurrency control and techniques to handle it. [6]  
**OR**
- B. Assume that table named GEB has fields CNO Number(5), CTYPE varchar2(3), NUNITS number(2) and BAMT number (11,2). [6]  
Write a PL/SQL code block to read CNO from the user and to display all information about that CNO if it is found in table GEB, if it is not found in table GEB then display the message like "This CNO does not found in table GEB".