



Nutan Maharashtra Vidya Prasarak Mandal's
NUTAN MAHARASHTRA INSTITUTE OF ENGINEERING &
TECHNOLOGY, PUNE

Department of Computer Engineering

Name: _____ Rollno: _____ Year: _____

Class: _____ Branch: _____ Semester: _____

Subject: _____ Exam Seat No.: _____

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|--------------------------------|--|------|---------|-----------|---------|
| Group A: SQL and PL/SQL | | | | | |
| 1 | ER Modeling and Normalization. Design using ER features using tools like ERD plus | | | | |
| 2 | Design and develop SQL DDL statements which demonstrate the use of SQL objects such as Table, View, Index, Sequence, Synonym. | | | | |
| 3 | Design at least 10 SQL queries for a suitable database application using SQL DML statements: Insert, Select, Update, Delete with operators, functions, and set operators. | | | | |
| 4 | Design at least 10 SQL queries for suitable database application using SQL DML statements: all types of Join, Sub-Query and View. | | | | |
| 5 | Unnamed PL/SQL code block: Use of Control structure and Exception handling is mandatory. | | | | |
| 6 | Write a Stored Procedure namely proc_Grade for the categorization of student. If marks scored by students in examination is ≤ 1500 and marks ≥ 990 then student will be placed in Distinction category if marks scored are between 989 and 900 category is First Class, if marks 899 and 825 category is Higher Second Class. Write a PL/SQL block for using procedure created with above requirement. 1. Stud_Marks(Roll, Name, Total_marks) 2. Result(Roll, Name, Class) Frame the separate problem statement for writing PL/SQL Stored Procedure and function, inline with above statement. | | | | |
| 7 | Cursors: (All types: Implicit, Explicit, Cursor FOR Loop, Parameterized Cursor) Write a PL/SQL block of code using parameterized Cursor, that will merge the data available in the newly created table N_RollCall with the data available in the table O_RollCall. If the data in the first table already exist in the second table, then that data should be skipped. | | | | |
| 8 | Database Trigger (All Types: Row level and Statement level triggers, Before and After Triggers). Write a database trigger on Library table. The System should keep track of the records that are being updated or | | | | |

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|---------------------------------|---|--|--|--|--|
| | deleted. The old value of updated or deleted records should be added in Library_ Audit table. Frame the problem statement for writing Database Triggers of all types, in-line with above statement. | | | | |
| Group B: NoSQL Databases | | | | | |
| 9 | Study of Open Source NOSQL Database: MongoDB (Installation, Basic CRUD operations, Execution) | | | | |
| 10 | Design and Develop MongoDB Queries using CRUD operations. (Use CRUD operations, SAVE method, logical operators) | | | | |
| 11 | Implement aggregation and indexing with suitable example using MongoDB. | | | | |
| 12 | Implement Map reduces operation with suitable example using MongoDB. | | | | |
| 13 | Design and Implement any 5 query using MongoDB | | | | |
| 14 | Write a program to implement MogoDB database connectivity with PHP/ python/Java Implement Database navigation operations (add, delete, edit etc.) using ODBC/JDBC. | | | | |
| Group C: Mini Project | | | | | |
| 15 | | | | | |