MID TERM SEMESTER EXAMINATION, MARCH-2017

COURSE: M.Tech (2nd Semester) Course No: PGMTH2F002T

Course Title: Oracle Database Development

Time Allowed: 1.5 Hours

Max Marks: 25

Instructions:

SECTION-A

Section A contains Five Multiple choice Questions. All are compulsory carrying one Mark each.

1. Choose the right options for each of the following multiple choice questions

I. A good database design

- (i) caters primarily to current needs
- (ii) caters to current and future needs as organizations grow
- (iii) has to be modified when hardware is upgraded
- (iv) ensures data security
- (A) i, ii
- (B) i, ii, iii
- (C) ii, iv

(D) iii, iv

II. Which of the following is a comparison operator in SQL?

(A) =

(B) LIKE

(C) BETWEEN

- (D) All of the above.
- III. Consider the join of a relation R with relation S. If R has m tuples and S has n tuples, then the maximum size of join is:

(A) mn

(B) m+n

(C) (m+n)/2

(D) 2(m+n)

- IV. Which one of the following is not true for a view?
- (A) View is derived from other tables.
- (B) View is a virtual table.
- (C) A view definition is permanently stored as part of the database.
- (D) View never contains derived columns.

V. Which of the following is correct?

- (A) a SQL query automatically eliminates duplicates.
- (B) SQL permits attribute names to be repeated in the same relation.
- (C) a SQL query will not work if there are no indexes on the relations
- (D) None of these

SECTION-B

Section B contains four short answer questions of 3 Marks each. Any two need to be attempted.

2. Database table by name Loan-Records is given below:

Borrower	bank manager	loan_amount
Ramesh	sunder	10000.00
suresh	ram	5000.00
Mahesh	sunder	7000.00

What is the output of the following SQL query?

SQL> Select count(*) from (SELECT borrower, bank_manager from loan_records) AS S NATURAL JOIN SELECT bank manager, loan amount from loan records) AS T):

3. Discuss with suitable examples how privileges on database objects are granted and revoked in oracle DBMS.

4. Why 'Order by' Clause is used? Consider the following relations

Students

Roll No	Student Name	
1	Raj	
2	Rohit	
3	Raj	

Performance

Roll No	Course	Marks
1	Math	80
1	English	70
2	Math	75
3	English	80
2	Physics	65
3	Math	80

Find the resultant relation after execution of the following query

SQL> SELECT S. Student Name, sum(P.Marks)

FROM Student S, Performance P

WHERE S.Roll No = P.Roll No

GROUP BY S.Student Name;

5 Discuss various types of JQIN operations with suitable examples.

SECTION -C

Section C contains two long answer questions with internal choice. Each question carries 7 Marks

UNIT-I

6. What is integrity Constraint? Using some examples, explain the types of constraints that may be put on a database during its design.

OR

Explain the concept of keys in database design. The employee information in a company is stored in the relation

Employee (name, gender, salary, dept_name)

Write a SQL query to find the name of departments in which average salary of male employees is more than the average salary in the company

UNIT-II

7. What is a database object? Which command is used to create and modify a database object? What are the limitations of SQL?

OR

What is a view? Discuss how these are implemented in Oracle.