Semester	III	Specialization	Information Technology
Course Code	309IT	Type	Subject - Elective
Course Title	RDBMS with Oracle /MS-SQL Server		

Course Objectives:	
1	To understand theoretical concepts in Relational Data Base Management
2	To develop working level proficiency for writing SQL commands
3	To develop capability to design applications for a real life DBMS problem

Syllabus:

Unit Number	Contents	Number of Sessions
1	**Overview of DBMS :** Architecture, Data models, constraints	3
2	**Relational model concept**: Relational model constraints ,relational Algebra, Relational database language, Data definition in SQL, Views and Queries in SQL, Specifying constraints and Indexes in SQL, Specifying constraints management systems,	6+1
3	**SQL Functions:** Date - Sys_date , next_day, Add_months, last_day, months_between. Numeric - round, trunc, abs, ceil, cos, exp, floor. Character - initcap, lower, upper, ltrim, rtrim, translate, length, lpad. rpad, replace. Conversion - to_char, to_date, to_number. Miscellaneous - Uid, User, nvl, vsize, decode, rownum. Group function - avg, max, min, sum, count, with Group by and Having Clause. Nested functions.	6+1
4	**Joins:** Simple join Equi join Non equi join Self join Outer join Set operators (Union, union all, intersect, minus) Sub queries and Correlated query DML statements (Insert, Update, Delete with whereclause) TCL (Commit, Rollback, Saveint)	5+1

5	**Tables** Create, Alter, Drop, Truncate, Rename Constraints (Primary key, Foreign Key, Unique Key, Check, Defult, Not Null, On delete, Cascade) Column level and Table level constraints **Oracle Objects** Views, Sequences, Synonyms, Index (Define, Alter and Drop)	6+1

Learning Resources:		
1	Text Books	Data Base System Concept by Korth, TMH, 5thEdition Oracle by Ivan Bayros
2	Reference Books	Introduction To Database Systems By C.J.Date, Pearson. Data Management Systems by Alexis Leon, Mathew Leon Principles of Database Management by James Martin, PHI. SQL - The complete Reference by Groff James & Weinberg Paul., TMH,2nd Edition.
3	Supplementary Reading Material	Oracle 7 by Ivan Bayross, BPB Pub.
4	Websites	www.thinkoracle.in
5	Journals	Development of a Relational Database Management System