

SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar
Programme & Subject : B.Sc (CA & IT) – M.Sc (CA & IT) Dual Degree
Semester – 4

PS04CIIT25 : Relational Database Management Systems - II
(w.e.f June 2019)

Credits : 4

Exam Duration : 3hrs

Lectures per week : 4

All units carry equal weightage.

Unit	Description in detail	Weightage
I	<p>Relational Database Design</p> <ul style="list-style-type: none"> - Entity-relationship modeling (different types of entities, attributes, relationships and their representation in the E-R diagram) - Case studies of data modeling using E-R modeling - Consequences of poor Data base Design - Normalization, 1st Normal Form, 2nd Normal Form, 3rd Normal Form, Boyce-Codd Normal Form - Examples of normalization 	25%
II	<p>Basics of PL/SQL</p> <ul style="list-style-type: none"> - PL/SQL - Introduction and advantages - Understanding PL/SQL Block structure - Fundamentals of PL/SQL Language - data types (BOOLEAN, CHAR, NUMBER, DATE, VARCHAR2), variables, constants and expressions (CASE expression) - Operators - Conditional statement – IF and CASE statements - Controlling loop iterations – LOOP, EXIT, EXITWHEN, WHILE, FOR - Sequential control statement – GOTO and NULL 	25%
III	<p>Cursors and Exception Handling</p> <ul style="list-style-type: none"> - SELECT..INTO statement - Working with cursor : introduction, types, attributes and processing (i.e. declaring, opening, fetching and closing), using parameterized cursor, using cursor FOR loop - Error Handling : introduction, advantages of exceptions, types of exceptions - Working with user-defined exceptions – declaration, RAISE_APPLICATION_ERROR, Pragma, EXCEPTION_INIT, SQLCODE and SQLERRM 	25%

IV	<p>Stored Subprograms, Database Triggers and Packages</p> <ul style="list-style-type: none"> - Stored procedures – introduction, creating, modifying, executing and dropping procedures - Stored functions – introduction, creating, modifying, executing and dropping functions - Database triggers – introduction, creating, modifying and dropping triggers, types of triggers - Packages – meaning, advantages, creating, modifying and dropping 	25 %
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Basic Text & Reference Books :

1. Ivan Bayross : SQL, PL/SQL The programming language of Oracle, 3rd revised edition, BPB Publications
2. Database Management Systems ,Raghu Ramkrishnan & Johannes, Mc Graw Hill, 3rd Edition
3. SQL/PLSQL for Oracle9i, P. S. Deshpande, dreamtech press, reprint edition 2009
4. Understanding Database Management System : S. Parthsarthy and B.W.Khalkar, First edition – 2007, Master Academy
5. Oracle9i PL/SQL : A developer’s guide, Buluksu Lakshman, A press, edition 2003