

**SARDAR PATEL UNIVERSITY**  
**Programme: B.Sc (Information Technology)**  
**Semester: VI**  
**Syllabus with effect from: November - 2013**

<b>Paper Code: US06CINT01</b>	<b>Total Credit: 3</b>
<b>Title of Paper: Relational Database Management Systems - II</b>	

Unit	Description in detail	Weightage (%)
I	<b>SQL Reports and Basics of PL/SQL</b> Overview of SQL*Plus report Building a simple report Reporting commands – remark, set headsep, ttitle, btitle, column, breakon, compute, spool, set pause, skip, setting and clear environment. PL/SQL - Introduction and advantages Understanding PL/SQL Block structure	25%
II	<b>Control Flow Constructs</b> Fundamentals of PL/SQL Language – character set, 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, EXIT WHEN, WHILE, FOR Sequential control statement – GOTO and NULL SELECT...INTO statement	25%
III	<b>Cursors, Security and Exception Handling</b> Working with cursor: introduction, types, attributes and processing (i.e. declaring, opening, fetching and closing), using parameterized cursor, using cursor FOR loop PL/SQL Security : Locks, Types of locks, Levels of locks, Lock Table Statement, Releasing Lock. 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	<b>Stored Procedures , Functions, Database Triggers and Packages</b> Stored procedures – introduction, creating, modifying, executing and dropping procedures Stored functions – introduction, creating, modifying, executing and dropping functions Packages – meaning, advantages, creating, modifying and dropping Database triggers – introduction, creating, modifying and dropping triggers, types of triggers	25%

**Basic Text & Reference Books:**

- An introduction to Database Systems: Bipin C. Desai, Galgotia Publications Pvt. Ltd.
- Ivan Bayross: SQL, PL/SQL The programming language of Oracle, 3<sup>rd</sup> revised edition, BPB Publications.
- Kevin Loney, George Koch, Oracle9i The Complete Reference, Oracle Press.
- Understanding Database Management System : S. Parthasarthy and B.W.Khalkar, First edition – 2007, Master Academy.
- P. S. Deshpande : SQL/PLSQL for Oracle9i, dreamtech press, reprint edition 2009

