

H. N. G. University , Patan
M.C.A(5 Years Integrated Programme) – Semester - IV
405: Advance Database Architecture

Unit: 1	[25%]
The Oracle Instance Architecture	
Introduction	
Defining the Instance	
Creating the Instance	
The Oracle Database Architecture	
Defining the Database	
The SYS and SYSTEM Schemas	
Understanding the Components of the Database	
Understanding Database Segments	
Oracle Data Dictionary	
Other Database Objects	
Exploring the oracle Environment	
Creating the Oracle Environment	
Designing an Optimal Flexible Architecture	
Creating Your First Database	
Unit: 2	[25%]
SQL Plus for Administrators	
Administering SQL Plus	
Using the SQL Plus COPY Command	
Using SQL to Create SQL	
Tracing SQL Statements	
Oracle Enterprise Manager	
Understanding the Enterprise Manager Architecture	
Using the Database Administration Tools	
PL/SQL	
Index, View, Sequence, Trigger, Procedure, Function, Package, Cursor, Exception Handling	
Unit: 3	[25%]
IMPORT/EXPORT	
Understanding Import/Export	
Controlling & Configuring Import/Export	
Walkthrough of Import/Export Sessions	
Using SHOW & INDEXFILE Options	
SQL*Loader	
Components of SQL Loader	
Looking at SQL Loader Examples	
Conventional and Direct Path Loading	
Unit: 4	[25%]
Managing Database Storage	
Administering Database Objects	
Understanding Database Fragmentation	
Managing Rollback Segments	
Identifying Storage Problems	
Administering Growing Database	
Integrity Management	
Introduction	
Implementing Locks	
Analyzing v\$log	
Monitoring Locks on the System	
Avoiding Locks: Possible Solutions	
Implementing Locks with Latches	
BackUp and Recovery	
Types of Backup	
Database Backup in offline and online mode	
Database recovery	
Performance Tuning fundamentals	

Understanding Why You Tune
Knowing the Tuning Principles
Tuning Goals
Using the Return on Investment Strategy

Text Books:

1. William Page & Nathan Hughes : Using Oracle8/8i Special Edition, Prentice Hall India.

Reference Books:

1. Oracle Unleashed,
2. Oracle10g Complete Reference, Kevin Loney, Tata McGraw-Hill,2004.
3. Oracle Bible,
4. Oracle Architecture, Oracle Press.
5. Oracle Database 10g DBA Handbook, Kevin Loney & Bob Bryla, Tata McGraw-Hill,2005