CERTIFICATE COURSE – 1ST YEAR ADD-ON COURSES 2012-13 SYLLABUS OF Oracle 9

Semester I

Paper Code : OAP-1

Paper Name : Concepts of DBMS

Course Duration: 6 months

Total Course length: (Theory-12 Credits /180 Hrs)

(Practical/Fields work -08 Credits/ 120 Hrs)

*1 credit =15 Hrs

Max Marks: 100(Theory Marks: 80 /Internal Assessment: 20)

Times Allowed: 3hrs

NOTE: The examiner will set 9 questions, first (I) question will be compulsory which will be set from the entire syllabus. This question will be short answer type carrying 2 mks each. 8 question will be set out of four units, 2 questions from each unit and the student will be required to attempt 1 question from each unit

<u>UNIT - I</u> (3 Credits)

Introduction to Oracle 9: SQL

Define database, DBMS, DBMS Models, records and files, abstraction and data integration, Relational database Design: Functional dependency, finding keys, Normalization

RDBMS (Relational database management system), Relational Data Manipulation: SQL, Basic SQL statements, various types of functions available in SQL, Joins, Subqueries.

<u>UNIT - I I I</u> (3 Credits)

Process of producing readable output with iSQL*Plus, constraints and views, Database objects, Oracle 9i extensions to DML and DDL statements. Introduction To MS-Excel, MS -ACCESS, Advance Ms-Access.

<u>UNIT – IV</u> (3 Credits)

Ouery Processing and Optimisation: General strategies for query processing, Basic algorithms for executing query operations, using Neuristics in query optimisation

- 1) MySQL Essentials
- 2) Complete Reference, By Kevin Loney, By George
- 3) Database System By Ivan Byross

OAP - 2 (Practical)

(8 Credits/120 Hrs)

Practical will be based on the syllabus of theory paper of Practical lab

Max Marks: 100

(Practical Marks: 75 Viva Voce: 10 & Practical file:15)

Semester II

Paper Code : OAP – 3

Paper Name : Oracle 9 And Applications

Course Duration: 6 months

Total Course length: (Theory-12 Credits /180 Hrs)

(Practical/Fields work -08 Credits/ 120 Hrs)

*1 credit =15 Hrs

Max Marks: 100(Theory Marks: 80 /Internal Assessment: 20)

Times Allowed: 3hrs

NOTE: The examiner will set 9 questions, first (I) question will be compulsory which will be set from the entire syllabus. This question will be short answer type carrying 2 mks each. 8 question will be set out of four units, 2 questions from each unit and the student will be required to attempt 1 question from each unit

<u>UNIT - I</u> (3 Credits)

Oracle architecture, Features of the Oracle Universal Installer, Start-up and shutdown of an Oracle instance, Process of database creation

<u>UNIT – II</u> (3 Credits)

Data dictionary and dynamic performance views, control file and redo log files, Managing tablespaces and datafiles, Different types of indexes and their uses, Resource management and privileges, Auditing, Globalisation support in Oracle.

Oracle 11i: Program with PL/SQL

Introduction to Procedural Language/SQL (PL/SQL) ,Features and syntax of PL/SQL, writing executable statements, control structures, composite data types and its types,

UNIT – IV (3 Credits)

Process of writing explicit cursors, Subprogrammes, Use of SQL functions, Packages in PL/SQL, List and explain Oracle server-supplied packages,

- 1) Database System by Navathe (Pearson Education)
- 2) Database System by Bipin C Desai(Galgotia Publication)
- 3) Database System by C. J. Date (Narosa Publication house)

OAP - 4 (Practical)

(8 Credits/120 Hrs)

Practical will be based on the syllabus of theory paper of Practical lab

Max Marks: 100

(Practical Marks: 75 Viva Voce: 10 & Practical file:15)

$\underline{DIPLOMA\ COURSE-2^{ND}\ YR.}$

2013-14

Semester III

Paper Code : OAP - 5

Paper Name : Oracle & Security Features

Course Duration: 6 months

Total Course length: (Theory-12 Credits /180 Hrs)

(Practical/Fields work -08 Credits/ 120 Hrs)

*1 credit =15 Hrs

Max Marks: 100(Theory Marks: 80 /Internal Assessment: 20)

Times Allowed: 3hrs

NOTE: The examiner will set 9 questions, first (I) question will be compulsory which will be set from the entire syllabus. This question will be short answer type carrying 2 mks each. 8 question will be set out of four units, 2 questions from each unit and the student will be required to attempt 1 question from each unit

<u>UNIT - I</u> (3 Credits)

Introduction of Oracle 9, Oracle Net architecture, Process of database and data file structures.

<u>UNIT - II</u> (3 Credits)

Concurrency control: Concepts, Locking techniques for concurrency control, concurrency control based on Time-stamp ordering, Multiversion concurrency control techniques

Backups, Different Oracle backup methods and recovery operations, Database utilities (Export and Import), Oracle architecture components related to backup and recovery operations.

<u>UNIT – IV</u> (3 Credits)

Stored Procedures and Functions: creation and execution of Stored procedures, storage of procedures, creation and execution of functions, storage of functions

- 1) Database System by Korth(TMH)
- 2) Database System by Bipin C Desai(Galgotia Publication)
- 3) Database System by C. J. Date (Narosa Publication house)

OAP – 6 (Practical)

(8 Credits/120 Hrs)

Practical will be based on the syllabus of theory paper of Practical lab

Max Marks: 100

(Practical Marks: 75 Viva Voce: 10 & Practical file:15)

Semester IV

Paper Code : OAP - 7

Paper Name : Concepts of Datawarehousing

Course Duration: 6 months

Total Course length: (Theory-12 Credits /180 Hrs)

(Practical/Fields work -08 Credits/ 120 Hrs)

*1 credit =15 Hrs

Max Marks: 100(Theory Marks: 80 /Internal Assessment: 20)

Times Allowed: 3hrs

NOTE: The examiner will set 9 questions, first (I) question will be compulsory which will be set from the entire syllabus. This question will be short answer type carrying 2 mks each. 8 question will be set out of four units, 2 questions from each unit and the student will be required to attempt 1 question from each unit

<u>UNIT – I</u> (3 Credits)

Data Warehousing Concepts: Definition of Data Warehouse, Features of Data Warehouse, Contrasting OLTP and Data Warehousing Environments , Data Warehouse Architectures ,Data Warehouse Architecture (Basic) ,Data Warehouse Architecture (with a Staging Area), Data Warehouse Architecture (with a Staging Area and Data Marts)

<u>UNIT – II</u> (3 Credits)

Logical Design in Data Warehouse: Logical Versus Physical Design in Data Warehouses ,Creating a Logical Design, Data Warehousing Schemas (Star Schemas,Other Schemas), Data Warehousing Objects (Fact Tables ,Dimension Tables ,Unique Identifiers ,Relationships), Example of Data Warehousing Objects and Their Relationships

<u>UNIT – III</u> (3 Credits)

Physical Design in Data Warehouses: Moving from Logical to Physical Design ,Physical Design ,Physical Design Structures (Tablespaces, Tables and Partitioned Tables ,Views ,Integrity Constraints ,Indexes ,and Partitioned Indexes ,Materialized Views ,Dimensions)

<u>UNIT – IV</u> (3 Credits)

Data Mining: Introduction, Important, Kinds of Data, Functionalities—What Kinds of Patterns Can Be Mined, Mining Frequent Patterns, Associations, and Correlations, Classification and Prediction, Cluster Analysis, Outlier Analysis, Classification of Data Mining Systems, Data Cleaning (Missing Values, Noisy Data), Data Cleaning as a Process, Data Integration and Transformation, OLAP Operations in the Multidimensional Data Model

Recommended Books

- 1) Database System by Korth(TMH)
- 2) Database System by Bipin C Desai(Galgotia Publication)
- 3) Database System by C. J. Date (Narosa Publication house)

OAP - 8 (Practical)

(8 Credits/120 Hrs)

Practical will be based on the syllabus of theory paper of Practical lab

Max Marks: 100

(Practical Marks: 75 Viva Voce: 10 & Practical file:15)

$\frac{ADVANCED\ DIPLOMA-3^{rd}\ Yr.}{2014-15}$

Semester V

Paper Code : OAP – 9

Paper Name : Working With Form Developer

Course Duration: 6 months

Total Course length: (Theory-12 Credits /180 Hrs)

(Practical/Fields work -08 Credits/ 120 Hrs)

*1 credit =15 Hrs

Max Marks: 100(Theory Marks: 80 /Internal Assessment: 20)

Times Allowed: 3hrs

NOTE: The examiner will set 9 questions, first (I) question will be compulsory which will be set from the entire syllabus. This question will be short answer type carrying 2 mks each. 8 question will be set out of four units, 2 questions from each unit and the student will be required to attempt 1 question from each unit

<u>UNIT – I</u> (3 Credits)

SQL Forms: Basic concepts, form construction, creating Default form, User-Defined Form, Multi-record form, Master detailed form

<u>UNIT – II</u>

Forms Developer 11i

(3 Credits)

Oracle Forms Developer and Oracle Forms Services, creation of form modules in multiple windows using layout styles, data blocks and frames, LOVs and editors, Creation of Windows and content canvases, triggers, navigation and transaction processing, multiple formapplications.

Reports Developer 9

Oracle 9 Reports Developer, mailing labels and letters creation using templates, basic tabular report creation and modification, report creation using XML,

UNIT – IV (3 Credits)

Identify the main components and the relations between them in a report document, Describe the process of publishing a report on the web, Explain the process of maximising report performance using Oracle 9i AS reports services, Explain graph creation and embedding in a report.

Recommended Books

- 1) Database System by Ivan Byross
- 2) Database System by Bipin C Desai(Galgotia Publication)
- 3) Database System by C. J. Date (Narosa Publication house)

OAP - 10 (Practical)

(8 Credits/120 Hrs)

Practical will be based on the syllabus of theory paper of Practical lab

Max Marks: 100

(Practical Marks: 75 Viva Voce: 10 & Practical file:15)

Semester VI

Paper Code : OAP – 11

Paper Name : RAC Applications

Course Duration: 6 months

Total Course length: (Theory-12 Credits /180 Hrs)

(Practical/Fields work -08 Credits/ 120 Hrs)

*1 credit =15 Hrs

Max Marks: 100(Theory Marks: 80 /Internal Assessment: 20)

Times Allowed: 3hrs

NOTE: The examiner will set 9 questions, first (I) question will be compulsory which will be set from the entire syllabus. This question will be short answer type carrying 2 mks each. 8 question will be set out of four units, 2 questions from each unit and the student will be required to attempt 1 question from each unit

<u>UNIT – I</u> (3 Credits)

Introduction of Oracle Clusterware and Oracle Real Application Clusters, The Oracle Clusterware Architecture and Oracle Clusterware Processing, The Oracle Real Application Clusters Architecture and Oracle Real Application Clusters Processing

<u>UNIT – II</u> (3 Credits)

Oracle Clusterware Components and High Availability, Workload Management with Oracle Real Application Clusters, Introduction to Installing Oracle Clusterware and Oracle Real Application Clusters

Additional Considerations and Features for Oracle Real Application Clusters, Managing Oracle Real Application Clusters Environments

<u>UNIT – IV</u> (3 Credits)

Introduction to Oracle 9 Application Server, Overview of Oracle9i Application Server? , Oracle Application Server Component Migration Options, Enterprise Services Migration

- 1) Database System by C. J. Date (Narosa Publication house)
- 2) Database System by Navathe (Pearson Publication house)

OAP - 12 (Practical)

(8 Credits/120 Hrs)

Practical will be based on the syllabus of theory paper of Practical lab

Max Marks: 100

(Practical Marks: 75 Viva Voce: 10 & Practical file:15)