Syllabus of
B.Sc. (Computer Science)
Optional Paper

Part III (Semester- V)

COMPUTER SCIENCE BOARD

Prepared by Dr. S.B. Kishor
Chairman, Computer Science Board

GONDWANA UNIVERSITY,
GADCHIROLI

SESSION 2014-2015
### Semester V

<table>
<thead>
<tr>
<th>Paper 1:</th>
<th>SYSTEM ANALYSIS AND PROJECT MANAGEMENT</th>
<th>Theory: 50 Marks</th>
<th>Internal: 10 Marks</th>
<th>Practical: 30 Marks</th>
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<tbody>
<tr>
<td>Paper 2:</td>
<td>DATABASE PROGRAMMING WITH ORACLE</td>
<td>Theory: 50 Marks</td>
<td>Internal: 10 Marks</td>
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### Semester VI

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<tr>
<th>Paper 1:</th>
<th>E-COMMERCE AND HTML</th>
<th>Theory: 50 Marks</th>
<th>Internal: 10 Marks</th>
<th>Practical: 30 Marks</th>
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<td>Paper 2:</td>
<td>VB.NET</td>
<td>Theory: 50 Marks</td>
<td>Internal: 10 Marks</td>
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<td>Elective</td>
<td>Data Communication With Cloud Computing Basics</td>
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B.Sc. – III (Computer Science) SEMESTER – V


Paper – II : Database Programming With Oracle
UNIT – I: System Concepts

Systems Concepts: Systems approach, characteristics, Types of Systems; Elements – Input, Output, Environment, Boundary Interface, Feedback & Control; MIS, Types of MIS: TPS, OAS DSS, KWS, Data and Information, Value of Information, Information Life Cycle, Data Vs Information,

UNIT – II: System Analysis

System Analysis: System Development Life Cycle (SDLC), Information Gathering (Sources, Methods, Interviews, Questionnaires, Observation, Document Analysis etc.), Feasibility study, Analysis (PARIS model), Design, Implementation, Planning and Control for System success. Tools of Structure Analysis (Data Flow Diagram, Data Dictionary, Decision Tree, Decision Table, CASE tools)

UNIT – III: System Design & Implementation


Implementation: Testing, Level of Testing, Nature of Test Data, Conversion, User Training, Hardware and Software Selection

Documentation, Types of Documentations, Quality Assurance, Privacy, Disaster Recovery Plan, Maintenance Review

UNIT – IV: Project Management

Introduction, Management Spectrum, Project Manager, Project Estimation, Project Scheduling

Quality Management: Quality Concept, Software Quality, Software Reliability, ISO 9000 Quality standards

Books:


References:

UNIT – I: Introduction
RDBMS Concept, Introduction to Oracle, SQL Tools, Oracle as multi-User System, SQL, SQL *Plus, Getting Started with SQL, Writing SQL Commands, Components of SQL, Data Types, Database Users, Database Objects, Elements of SQL

UNIT – II: SQL Languages
Data Definition Language: Creation of Table, Viewing table Structure, Data Integrity through Constraints, Altering Table, Dropping Table, Truncating Table
Data Retrieval: Select Command, SQL Operators, Text Search, Group Queries, Order By Clause
DML Operation: Insert, Update and Delete
Transaction Control Language: Commit, Rollback, SavePoint
Data Control Language: Grant, Revoke

UNIT - III: SQL Function and Database Objects
Sql *functions: Character Function, Case Manipulation, Numeric Functions, Date Function, Conversion Function, Conditional Functions, Nested Functions, Group Functions
Database Objects: Views, Sequence, Synonym
Join, Set Operator and Sub query

UNIT - IV: PL/SQL
Basic Elements of Programming, Select. Into Statement, Exception Handling: Predefined Exception, When Other Exception, Cursor: Explicit Cursor, Explicit Cursor Attributes, Subprogram and Packages, Trigger

Books:

References: