

**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

B.Sc. – III (Computer Science)

Semester V	Paper 1:	SYSTEM ANALYSIS AND PROJECT MANAGEMENT	Theory : 50 Marks Internal : 10 Marks	Practical : 30 Marks
	Paper 2:	DATABASE PROGRAMMING WITH ORACLE	Theory : 50 Marks Internal : 10 Marks	
Semester VI	Paper 1:	E-COMMERCE AND HTML	Theory : 50 Marks Internal : 10 Marks	Practical : 30 Marks
	Paper 2:			
	Elective			
	1	VB.NET	Theory : 50 Marks	
	2	Data Communication With Cloud Computing Basics	Internal : 10 Marks	
	3	JAVA		

B.Sc. – III (Computer Science) SEMESTER – V

Paper – I : System Analysis and Project Management

Paper – II : Database Programming With Oracle

B.Sc. – III (Computer Science)
SEMESTER –V

PAPER-I: SYSTEM ANALYSIS AND PROJECT MANAGEMENT[Marks: 50

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

System Design: System Design Principle, Input Design, Output Design, Form Design

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:

- 1) S. Sadagopan, “Management Information System”, PHI, ISBN, 8120311809
- 2) Goyal, “Management Information System”, ISBN 0333 933885
- 3) Jawdejar, “ Management Information System”, MH, ISBN 0-07-044575-3
- 4) Elias Award, “System Analysis & Design”, Golgotha Publication, 2nd Edition, ISBN: 81751568-X

References:

- 1) RogernPressman, “Software Engineering Practition Approach”, ISBN 007-124083-7
- 2) Rajib Mall, “Fundamental of Software Engineering”, PHI, 2nd Edition, ISBN-978-81-203-2445-9

B.Sc. – III (Computer Science)
SEMESTER –V

PAPER-II: Database Programming With Oracle

[Marks: 50

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:

- 1) Dr. S.B. Kishor, "Oracle (PL/SQL) Programming", Das GanuPrakashan, ISBN 978-81-921757-5-1
- 2) Kevin Loney, Marlene Theriault, "Oracle 9i: DBA Handbook", TMH, ISBN: 78-0-07-048674-4.
- 3) Ivan Bayross, "Oracle Developer 2000", BPB, 2006, ISBN : 8/7029-899-7

References:

- 1) Paul Hipsley, "Developing Client / Server Applications with oracle Developer/2000 TM", Techmedia, 1997, ISBN – 81-87150-02-X
- 2) Ivan Bayross, " Commercial Application Development using Oracle Developer 2000 Forms 6i", BPB, 2003, ISBN : 81-7656-742-6