Syllabus of

B.Sc. (Information Technology)

Part III (Semester- V)

Designed by Dr. S.B. Kishor

GONDWANA UNIVERSITY, GADCHIROLI

SESSION 2014-2015
### B. Sc. – III [Information Technology]

#### SEMESTER V

<table>
<thead>
<tr>
<th>Paper 1</th>
<th>Computer Forensic Science</th>
<th>Theory : 80 Marks</th>
<th>Internal : 20 Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper 2</td>
<td>Dynamic Web Development With Scripting</td>
<td>Theory : 80 Marks</td>
<td>Internal : 20 Marks</td>
</tr>
<tr>
<td>Paper 3</td>
<td>Data Communication and Cloud Computing</td>
<td>Theory : 80 Marks</td>
<td>Internal : 20 Marks</td>
</tr>
<tr>
<td>Paper 4</td>
<td>Computational Linguistics</td>
<td>Theory : 80 Marks</td>
<td>Internal : 20 Marks</td>
</tr>
</tbody>
</table>

Practical : 50 Marks
B.Sc. (IT) -III (Semester – V)

**Paper-1** : Computer Forensic Science

**Paper-2** : Dynamic Web Development With Scripting

**Paper-3** : Data Communication and Cloud Computing

**Paper 4** : Computational Linguistics

Practical 1 based on paper 1 and 2

Practical 2 based on paper 3 and 4
UNIT I: Internet Crime
Internet Crime: Definition, Types of Internet Crime, Hacking and Cracking, Cyber Terrisom, Child Pornography, Stalking, Cyber Theft, Cyber Fraud, Phishing, Password Cracking, Evidence Collection, Email Tracing, Internet Fraud.

UNIT II: Security

UNIT III: Cryptography

UNIT IV: Cyber Law

Books:

References:
B.Sc. (I.T.)- III

SEMESTER-V

Paper II: Dynamic Web Development With Scripting  [ Marks : 80 (5BIT2)

UNIT 1: Introduction
Introduction to WWW, Components of Web, Types of Website, Types of Web Sites, Types of Web Side Architecture, Static and Dynamic Web Pages Features of Static and Dynamic Sides, Architectures of Static and Dynamic Web Sites, Introduction of HTML.

Introduction to VBScript, Features of VBScript, Data Types in VBScript, Elements of VBScript: Identifiers, Operators, Control Statements, Control Structure,
Functions: Variant Function, Math Function, Formatting Function, String Manipulation Function, Type Conversion Methods Supported By VBScript, Arrays in VBScript, Regular Expression.

UNIT III: JavaScript:
Introduction, Features of JavaScript, Structure and Basic Syntax of JavaScript, Data Types, Operators Supported By JavaScript, Control Structure, Dialog Boxes Supported By JavaScript, Functions In JavaScript Built In Function, User Defined Function, Recursion, Arrays

UNIT IV: JavaScript- Object:
JavaScript Document Object Model: Built-In Objects In JavaScript, String Object, Math Object, Date Object, Boolean Object, Number Object, User Defined Objects, Handling (WEB PAGE) Events Using JavaScript
Form Objects: - Methods and Properties of Form Object, The Text Element, The Button Element (Submit and Reset Element), Password Element, Checkbox Element, Radio Element, Text Area Element, Select and Option Element, Multiple Choice Select List, Cookies.

Books:
2) Lee Purcell, Mary Jane Mara, “The ABCs of JavaScript”, ISBN 81-7029-826-1

References:
UNIT I: Data Communication


UNIT II: Data Communication Network


UNIT III: Communication Architecture


UNIT IV: Cloud Computing Basics


Books:

Reference:
UNIT – I: Prolog Programming and AI

UNIT – II: Problem Solving
Basic Problem Solving Methods, State Space Search; Production Systems, Depth-First, Breadth-First Search, Heuristic Search - Hill Climbing, Best-First Search, Problem Reduction, Constraint Satisfaction End, Means-End Analysis.

UNIT – III: Knowledge Representation
Representing Simple Facts In Logic, Conservation to Clause Form, Resolution In Prepositional Logic and Predicative Logic, Unification Algorithm.

UNIT – IV: Structural Representation and Natural Language Understanding
Structural Representation of Knowledge: Some Common Language Structures, Choosing Level of Representation, Finding The Right Structure, Declarative Representation.
Natural Language Understanding: Concept of Understanding, Keyword Matching, Syntactic andSymantic Analysis, Understanding Language Generation and Matching Translation, General Concept of Implementation of A.I. System, Introduction to Pattern Recognition, Translation.

Books:

References: