# Chhattisgarh Swami Vivekananda Technical University, Bhilai (C.G.)

**Scheme of Teaching & Examination**

**M.Tech. (Information Security)**

**UNDER COMPUTER SCIENCE & ENGINEERING BOARD**

### 3rd Semester

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Board of Study</th>
<th>Subject Code</th>
<th>Subject</th>
<th>Periods per Week</th>
<th>Scheme of Examination</th>
<th>Total Marks</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>L</strong></td>
<td><strong>T</strong></td>
<td><strong>P</strong></td>
<td><strong>ESE</strong></td>
</tr>
<tr>
<td>1</td>
<td>Computer Science &amp; Engg.</td>
<td>571311 (22)</td>
<td>Wireless Security Systems</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Refer Table – III</td>
<td></td>
<td>Elective – III</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Computer Science &amp; Engg.</td>
<td>571321 (22)</td>
<td>Preliminary work on Dissertation</td>
<td>-</td>
<td>-</td>
<td>28</td>
<td>100</td>
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<tr>
<td>4</td>
<td>Computer Science &amp; Engg.</td>
<td>571322 (22)</td>
<td>Technical Seminar</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
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<td></td>
<td><strong>Total</strong></td>
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<td></td>
<td><strong>6</strong></td>
<td><strong>2</strong></td>
<td><strong>31</strong></td>
<td><strong>300</strong></td>
</tr>
</tbody>
</table>

- L - Lecture, T - Tutorial, P - Practical, ESE - End Semester Examination, CT - Class Test, TA - Teacher's Assessment

### Table – III

#### Elective – III

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Board of Study</th>
<th>Subject Code</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer Science &amp; Engg.</td>
<td>571331 (22)</td>
<td>Security Audit and Risk Assessment</td>
</tr>
<tr>
<td>2</td>
<td>Computer Science &amp; Engg.</td>
<td>571332(22)</td>
<td>Cloud Computing</td>
</tr>
<tr>
<td>3</td>
<td>Computer Science &amp; Engg.</td>
<td>571333(22)</td>
<td>Information Security in Industries</td>
</tr>
</tbody>
</table>

Note (1) ➔ Choice of elective once made for an examination cannot be changed in future examinations. Note (2) ➔ Examination Duration of all Theory papers will be of THREE hours.
Chhattisgarh Swami Vivekananda Technical University, Bhilai (C.G.)

Semester: M.Tech. – 3rd
Subject: Wireless Security Systems
Total Theory Periods: 40
Minimum number of Class tests to be conducted: 02
Branch: Information Security
Code: 571311 (22)
Total Tutorial Periods: 12
Total Marks in End Semester Exam: 100

Unit-I WIRELESS FUNDAMENTALS

Unit-II STANDARDS AND POLICY SOLUTIONS

Unit-III SECURITY PRINCIPLES AND AUTHENTICATIONS

Unit-IV CONFIGURATIONS
WLAN Configuration, IEEE 802.11, Physical layer, Media Access Frame format, Systematic Exploitation of 802.11b, WLAN, WEP Decryption script, Overview of WEP attack, Implementation, Analyses of WEP attacks.

Unit-V M-COMMERCE SECURITY
Mobile Commerce Security and Payment Methods, Reputation and Thrust, Intrusion detection, Vulnerabilities analysis of mobile commerce platform, Secure Authentication for mobile users, Mobile Commerce security, Payment methods, Mobile Coalition, Key Evolving, Digital Signatures scheme for wireless mobile networks.

Text Books:

Reference Books:
Chhattisgarh Swami Vivekananda Technical University, Bhilai (C.G.)

Semester: M.Tech. – 3rd
Subject: Security Audit and Risk Assessment (Elective-III)
Total Theory Periods: 40
Minimum number of Class tests to be conducted: 02

Branch: Information Security
Code: 571331 (22)
Total Tutorial Periods: 12
Total Marks in End Semester Exam: 100

Unit-I INTRODUCTION

Unit-II RISK ASSESSMENT

Unit-III STANDARDS AND LEGISLATIONS
Information Security Standards (ISS), Information Security Legislation (ISL), Formal security, Verification, Security verification with SSL.

Unit-IV SECURITY MONITORING AND AUDITING

Unit-V RISK MANAGEMENT AND SECURITY PLANNING

Text Books:

Reference Books:
Chhattisgarh Swami Vivekananda Technical University, Bhilai (C.G.)

Semester: M.Tech. – 3rd
Subject: Cloud Computing (ELECTIVE – III)
Code: 571332 (22)
Total Theory Periods: 40
Total Tutorial Periods: 12
Minimum number of Class tests to be conducted: 02
Total Marks in End Semester Exam: 100

Unit - I

Unit - II
Communication-as-a-Service (CAAS), Infrastructure-as-a-Service (IAAS), Monitoring-as-a-Service (MAAS), Platform-as-a-Service (PAAS), Software-as-a-Service (SAAS).

Unit - III
The Evolution from the MSP Model to Cloud Computing and Software-as-a-Service, The Cloud Data Center, Basic Approach to a Data Center-Based SOA, Where Open Source Software is Used?, Service-Oriented Architectures as a Step Toward Cloud Computing.

Unit - IV

Unit - V
What is a Smartphone?, Mobile Operating Systems for Smartphone’s (iPhone, Windows Mobile), Google(Android) Blackberry, Ubuntu Mobile Internet, Mobile Platform Virtualization (KVM, VMWare).

Text Books:

Reference Books:
Unit-I INFORMATION SECURITY POLICIES
About Policies, Why Policies are Important ?, When policies should be developed?, How Policy should be developed?, Policy needs, Identify what and from whom it is being protected, Data security consideration, Backups, Archival storage and disposal of data, Intellectual Property Rights and Policies, Incidence Response and Forensics, Management Responsibilities, Role of Information Security Department, Security Management and Law Enforcement, Security awareness training and support.

Unit-II INFORMATION SECURITY OBJECTIVES

Unit-III WRITING SECURE POLICIES

Unit-IV ESTABLISHING POLICIES

Unit-V MAINTAINING POLICIES

Text / Reference Books :
