Format: 5

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| **Symbiosis Institute of Technology, Pune** | | | |
| **Session Plan** | | | |
| **Name of the department – Computer Science and Engineering** | | | |
| **Name of the course- Network Security Lab** | | **Credit - 1** |  |
| **Semester – 7** |  | **Batch – 2021-25** | |
| **Name of the faculty- Dr. Sonali Kothari** | | | |

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| **Assign. No.** | **SR. No.** | **Points to cover** | **Synchronous/ Asynchronous** | **No. of Hours** | **Faculty Conducting** | **CO** |
| 1 |  | Virtual Lab setup for network security | Synchronous | 2 | Dr. Sonali Kothari | CO1 |
| 2 |  | Network forensic lab using Nmap tool | Synchronous | 2 | Dr. Sonali Kothari | CO1 |
|  | Network forensic lab using Nmap tool | Synchronous | 2 | Dr. Sonali Kothari | CO1 |
| 3 |  | Demonstration of Network Security tools/framework like metasploit | Synchronous | 2 | Dr. Sonali Kothari | CO1 |
| 4 |  | Demonstration of Network Security tools/framework like metasploit | Synchronous | 2 | Dr. Sonali Kothari | CO1 |
|  | Basic cryptography - Caesar cipher and substitution ciphers using an open-source tool Cryptool. | Synchronous | 2 | Dr. Sonali Kothari | CO2 |
|  | Basic cryptography - Caesar cipher and substitution ciphers using an open-source tool Cryptool. | Synchronous | 2 | Dr. Sonali Kothari | CO2 |
|  | CA1 | Continuous Evaluation I | Asynchronous | 2 | Dr. Sonali Kothari | CO1, CO2 |
| 5 |  | Symmetric and Asymmetric Key Encryption - DES, Triple DES, and RSA | Synchronous | 2 | Dr. Sonali Kothari | CO3 |
|  | Symmetric and Asymmetric key Encryption - DES, Triple DES and RSA | Synchronous | 2 | Dr. Sonali Kothari | CO3 |
| 6 |  | Hashing - one-way randomness in hash-function | Synchronous | 2 | Dr. Sonali Kothari | CO4 |
| 7 |  | Demonstrate and Analyse PCAP file using Wireshark | Synchronous | 2 | Dr. Sonali Kothari | CO5 |
| 8 |  | Study and demonstration of Snort IDS | Synchronous | 2 | Dr. Sonali Kothari | CO5 |
|  | Study and demonstration of Snort IDS | Synchronous | 2 | Dr. Sonali Kothari | CO5 |
| 9 |  | Study of SIEM | Synchronous | 2 | Dr. Sonali Kothari | CO5 |
|  | CA2 | Continuous Evaluation II | Asynchronous | 2 | Dr. Sonali Kothari | CO3, CO4, CO5 |
| **Note:**   1. **Do not perform any activity on any domain without prior permission.** 2. **All assignments are for study purposes only. Do not perform any unethical activity.** 3. **Make sure that knowingly or unknowingly, you are not committing any cyber-attack or cybercrime** | | | | | | | |

**Course Outcome**

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| **CO No** | **Statement** |
| CO1 | Demonstrate working on N-map tool for Network forensic |
| CO2 | Illustrate the applications of basic cryptography using cryptool |
| CO3 | Implement Symmetric and Asymmetric key Encryption algorithms |
| CO4 | Analyze use of Hashing function |
| CO5 | Distinguish relevance of Intrusion Detection System |

**Rubrics for Lab Evaluation:**

**CA 10 Marks:** Evaluation of every assignment on regular basis as per below details

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| **Criteria ->** | **Attendance** | **Submission** | **Performance** | **Extra activity** | **Total** |
| **Marks ->** | **2** | **2** | **4** | **2** | **10** |

**ESE Evaluation:** Performance based quiz on all 5 COs

**Viva:** 5 Marks

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| --- | --- |
| **Criteria** | **Marks** |
| 5 COs answered correctly | 5 |
| 4 COs answered correctly | 4 |
| 3 COs answered correctly | 3 |
| 2 COs answered correctly | 2 |
| 1 COs answered correctly | 1 |
| No questions answered | 0 |