Academic Lesson Plan of Summer 2023

| Department : CSE                                   | Semester: 6TH   | Name of the Teaching Faculty :<br>SOMYASHREE SAMAL |
|--|---|--|
| Subject :<br>CRYPTOGRAPHY<br>& NETWORK<br>SECURITY | No. of Days/per<br>week class<br>allotted :<br>4Period/week | Semester from: 15TH FEBRUARY 2023                  |
|  |   | No of Weeks : 15 Weeks                             |
|  |   | Topic to be covered:                               |
| WEEK   | DAYS  | TOPIC  |
| 1st Week   | lst   | The need for Security                              |
|  | 2nd   | Continue   |
|  | 3rd   | Security Approach                                  |
|  | 4th   | Continue   |
| 2nd Week   | 1st   | Principles of Security                             |
|  | 2nd   | Continue   |
|  | 3rd   | Types of Attacks                                   |
|  | 4th   | Continue   |
| 3rd Week   | 1st   | Cryptography Concepts Plain Text & Cipher Text     |
|  | 2nd   | Substitution techniques                            |
|  | 3rd   | Continue   |
|  | 4th   | Transposition Techniques                           |
|  | 1st   | Encryption & Decryption                            |
| 4th Week   | 2nd   | Continue   |
|  | 3rd   | Symmetric & Asymmetric Key Cryptography            |
|  | 4th   | Continue   |
| 5th Week   | 1st   | Symmetric Key Algorithm types                      |
|  | 2nd   | Continue   |
|  | 3rd   | Overview of Symmetric Key Cryptography             |
|  | 4th   | Continue   |
| 6th Week   | 1st   | Data Encryption Standards                          |
|  | 2nd   | Continue   |
|  | 3rd   | The RSA Algorithm                                  |
|  | 4th   | Continue   |
| 7th Week   | 1st   | Symmetric & Asymmetric Key Cryptography            |
|  | 2nd   | Continue   |
|  | 3rd   | Digital Signature                                  |
|  | 4th   | Continue   |
|  | 1st   | Digital Certificates                               |

| WEEK      | DAYS | TOPIC  |
|-----------|------|--|
| 8th Week  | 2nd  | Continue                                       |
|           | 3rd  | Continue                                       |
|           | 4th  | Private Key Management                         |
| 9th Week  | 1st  | PKIX Model                                     |
|           | 2nd  | Continue                                       |
|           | 3rd  | Public Key Cryptography Standards              |
|           | 4th  | Continue                                       |
|           | 1st  | Basic Concept                                  |
| 10th Week | 2nd  | Secure Socket Layer                            |
|           | 3rd  | Continue                                       |
|           | 4th  | Transport Layer Security                       |
|           | 1st  | Secure Hyper Text transfer Protocol (SHTTP)    |
| 11th Week | 2nd  | Time Stamping Protocol (TSP)                   |
|           | 3rd  | Secure Electronic Transaction (SET)            |
|           | 4th  | Continue                                       |
|           | 1st  | Authentication basics                          |
| 12th Week | 2nd  | Continue                                       |
| 12th Week | 3rd  | Password                                       |
|           | 4th  | Continue                                       |
|           | 1st  | Authentication Tokens                          |
| 13th Week | 2nd  | Certificate Based Authentication               |
| 13th week | 3rd  | Continue                                       |
|           | 4th  | Biometric Authentication                       |
|           | 1st  | Revision                                       |
| T         | 2nd  | Brief Introduction of TCP/IP                   |
| 4th Week  | 3rd  | Continue                                       |
|           | 4th  | Firewall                                       |
| 5th Week  | 1st  | Continue                                       |
|           | 2nd  | IP Security                                    |
|           | 3rd  | Virtual private Network (VPN)                  |
|           | 4th  | Revision & Semester Question Answer Discussion |

Signature of the faculty

Signature of the Principal