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**Department of Cyber Security**

**Lecture Handouts**

**Semester/Year**

**III /II**

**Course Code & Name: 19CB14301 & Fundamentals of Cyber Security Cl Branch: B.E. Cyber Security**

**Faculty Name : Dr.A.Umamaheswari**

**Unit : II Lecture No. 4 Date of Lecture:**

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| **Topic of Lecture: format string vulnerabilities** |
| **Introduction : ( Maximum 5 sentences)**   * vulnerabilities in the printf print formatting and similar functions. * These vulnerabilities put the stack, a critical component of program execution, at risk for corruption. |
| **Prerequisite knowledge for Complete learning of Topic: (Max. Four important topics)**     * Computer Architecture & Organization |
| **Detailed Content of the Lecture:**  **format string vulnerabilities:**   * This section discusses vulnerabilities in the printf print formatting and similar functions. These vulnerabilities put the stack, a critical component of program execution, at risk for corruption. * Exploit code using this type of vulnerability to install malicious code or compromise servers.   Proj 6: Exploiting a Format String Vulnerability (20 pts.)  **Example:**  string = “hello”;  decimal = 1234;  printf(“%s : %d”, string, decimal); // Three  parameters total |
| **Outcome / Application: (**write in bullets or in sentence form**)**  Students will be able to describe the format string vulnerabilities. |
| **Video Content / details of websites for further learning (if any):**  https://www.youtube.com/watch?v=8dcUkJYn-Mk |
| **Reference:**  CYBER SECURITY ESSENTIALS Edited by James Graham Richard Howard Ryan Olson |

**Subject Teacher**

**Verified by HOD**