

**Code No: 157JB****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, December-2023/January-2024****VULNERABILITY ASSESSMENT AND PENETRATION TESTING****(Computer Science and Engineering - Cyber Security)****Time: 3 Hours****Max. Marks: 75****Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

**PART - A**

- |      |   |     |
|------|---|-----|
| 1.a) | What are the main targets of social engineering attacks?  | [2] |
| b)   | How a social engineering attack works? Explain.           | [3] |
| c)   | What is penetration attack?                               | [2] |
| d)   | What are the stages of physical penetration testing?      | [3] |
| e)   | Give a note on planning a penetration test.               | [2] |
| f)   | Explain the XPSP3.  | [3] |
| g)   | What is the biggest security threat to a web application? | [2] |
| h)   | Give a note on Passive Analysis.                          | [3] |
| i)   | What is a Honeypot technology?                            | [2] |
| j)   | Give a note on Catching Malware.                          | [3] |

**PART – B****(50 Marks)**

- |           |   |       |
|-----------|---|-------|
| 2.a)      | Why you need to understand your enemy's tactics? Explain.     |       |
| b)        | Discuss the Vulnerability Assessment and Penetration Testing. | [5+5] |
| <b>OR</b> |   |       |
| 3.        | Explain the common attacks used in penetration testing.       | [10]  |
| 4.        | Discuss the Automating and Scripting Metasploit.              | [10]  |
| <b>OR</b> |   |       |
| 5.        | Write the Using the Metasploit Console to Launch Exploits.    | [10]  |
| 6.a)      | Give a note on information sharing during a penetration test. |       |
| b)        | Draw and explain the structuring a penetration test.          | [5+5] |
| <b>OR</b> |   |       |
| 7.        | Give a note on  |       |
|           | a) Compiling and Debugging Windows Programs.                  |       |
|           | b) Local Buffer Overflow Exploits.                            | [5+5] |

QA QA QA QA QA QA QA G

8. Explain the OWASP Top Ten SQL Injection vulnerabilities. [10]

**OR**

9.a) Explain the Cross-site scripting vulnerabilities.

b) Give a note on Binary Analysis. [5+5]

QA QA QA QA QA QA QA G

10.a) Describe the Internet explorer security concepts.

b) Explain the history of client- side exploits and latest trends. [5+5]

**OR**

11. Discuss the client-side vulnerabilities. [10]

QA QA QA QA QA QA QA G

QA QA QA QA QA QA QA G

QA QA QA QA QA QA QA G

QA QA QA QA QA QA QA G

QA QA QA QA QA QA QA G

QA QA QA QA QA QA QA G