



PRESIDENCY UNIVERSITY

BENGALURU

Roll No.													
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End - Term Examinations – MAY/ JUNE 2025

Date: 02-06-2025

Time: 01:00 pm – 04:00 pm

School: SOCSE	Program: B. Tech –CCS	
Course Code: CSE3100	Course Name: Security Assessment and Testing	
Semester: IV	Max Marks: 100	Weightage: 50%

CO - Levels	C01	C02	C03	C04
Marks	24	24	26	26

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.

10Q x 2M=20M

1.	Define the concept of a zero-day exploit.	2 Marks	L1	C01
2.	Describe the primary goal of a phishing attack.	2 Marks	L1	C01
3.	Define the purpose of the set command in Metasploit	2 Marks	L1	C02
4.	Define the function of the run command in Meterpreter.	2 Marks	L1	C02
5.	Define is the role of RBAC in security?	2 Marks	L1	C03
6.	Name the attack which floods a server with excessive requests?	2 Marks	L1	C03
7.	Define the principle of least privilege?	2 Marks	L1	C03
8.	State the significance of high entropy in a malware sample.	2 Marks	L1	C04
9.	Describe the purpose of API call tracing in dynamic analysis.	2 Marks	L1	C04
10.	State the reason for the following statement, "Chromium-based browsers are targeted in modern exploits."	2 Marks	L1	C04

Part B

Answer the Questions.

Total Marks 80M

11.	a.	Describe gray areas in cybersecurity with examples.	10 Marks	L1	C01
	b.	Discuss the importance of understanding an attacker's tactics in ethical hacking.	10 Marks	L2	C01
Or					
12.	a.	Define the concept of penetration testing and its key objectives.	10 Marks	L1	C01
	b.	Explain the concept of privilege escalation and its impact on system security.	10 Marks	L2	C01

13.	a.	Write a Ruby script to automate post-exploitation tasks in Meterpreter.	10 Marks	L2	C02
	b.	Explain how to use Metasploit to pivot through a compromised system.	10 Marks	L2	C02
Or					
14.	a.	Explain the steps to identify and exploit a vulnerable FTP service using Metasploit.	10 Marks	L2	C02
	b.	Explain how to use Metasploit to exploit a client-side vulnerability in Adobe Reader.	10 Marks	L2	C02

15.	a.	Solve a scenario where an attacker exploits weak password recovery. Suggest mitigations.	10 Marks	L3	C03
	b.	Compare SQL Injection and NoSQL Injection with examples.	10 Marks	L2	C03
Or					
16.	a.	Interpret how an XML Injection attack escalates privileges.	10 Marks	L3	C03
	b.	Summarize the impact of the MySpace Samy Worm and its exploitation technique.	10 Marks	L2	C03

17.	a.	Explain how AI-driven honeynets improve threat detection, with an example.	10 Marks	L2	C04
	b.	Defend the statement: "Heap spraying remains relevant despite modern mitigations."	10 Marks	L2	C04
Or					
18.	a.	Explain the seven key techniques in dynamic malware analysis.	10 Marks	L2	C04
	b.	Explain how Operation Aurora exploited IE6, and its long-term impact on cybersecurity.	10 Marks	L2	C04