PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 17 – 12- 2025   **Time:** 01:00pm – 04:00pm

School: SOIS	Program: BCA	
Course Code: CSA3050	Course Name: Ethical Hacking	
Semester: V	Max Marks: 100	Weightage: 50%

CO - Levels	CO1	CO2	CO3	CO4
Marks	26	26	24	24

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.	Summarize ethical hacking and explain its scope.	2 Marks	L2	CO1
2.	Classify the different types of hackers and their roles.	2 Marks	L2	CO1
3.	Illustrate the phases of ethical hacking.	2 Marks	L2	CO1
4.	Classify the key differences between viruses, worms, and Trojans.	2 Marks	L2	CO2
5.	Describe how ransomware functions and its impact on users.	2 Marks	L2	CO2
6.	Explain how a worm differs from a virus.	2 Marks	L2	CO2
7.	Summarize the organizations preventing social engineering attacks?	2 Marks	L2	CO3
8.	Classify the phishing and pretexting.	2 Marks	L2	CO3
9.	List the key layers in mobile OS architecture?	2 Marks	L1	CO4
10.	Define sandboxing in mobile security.	2 Marks	L1	CO4

Part - B

Answer the Questions.   Total Marks: 80M

11.	a.	Explain the difference between black-hat, white-hat, and grey-hat hackers.	10 Marks	L2	CO1
	b.	Classify the different types of malwares and their effects.	10 Marks	L2	CO1
OR					
12.	a.	Describe the ethical hacking techniques, approaches to find vulnerabilities in a web application.	10 Marks	L2	CO1
	b.	Illustrate the working of different password cracking techniques.	10 Marks	L2	CO1

13.	a.	Demonstrate how to use antivirus software to detect and remove malware.	10 Marks	L3	CO2
	b.	Explain the working mechanism of a Trojan horse and how it differs from a virus.	10 Marks	L2	CO2
OR					
14.	a.	Discover the lifecycle of a computer virus from infection to execution.	10 Marks	L3	CO2
	b.	Explain how to detect and prevent malware infections also describe what does malware do?	10 Marks	L2	CO2

15.	a.	Explain various social engineering techniques with examples.	10 Marks	L2	CO3
	b.	How an attacker uses network scanning to identify vulnerabilities in a target system. Provide examples of different scanning techniques.	10 Marks	L3	CO3
OR					
16.	a.	Explain the key concepts of network scanning and discuss its role in vulnerability assessment.	10 Marks	L2	CO3
	b.	Describe common tools and techniques used in network scanning.	10 Marks	L3	CO3

17.	a.	Discuss major security threats to mobile applications and explain how encryption, sandboxing, and permissions enhance security.	10 Marks	L2	CO4
	b.	Compare and analyze the security models of Android and iOS. Which one is more secure and why?	10 Marks	L4	CO4
OR					
18.	a.	Explain the layered architecture of a mobile operating system with a neat diagram. Discuss the role of each layer.	10 Marks	L2	CO4
	b.	Analyze the security challenges in mobile applications and suggest solutions.	10 Marks	L4	CO4