PRESIDENCY UNIVERSITY

BENGALURU

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: CSE3099	**Course Name:** Digital and Mobile Forensics
Semester: IV	**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.	List out the phases of digital forensics?	2 Marks	L1	CO1
2.	Define closed and open systems in digital forensics.	2 Marks	L1	CO1
3.	Explain the different categories of cybercrime?	2 Marks	L2	CO1
4.	Summarize the term "chain of custody" in digital forensics.	2 Marks	L2	CO2
5.	Explain the purpose of hashing in digital forensics?	2 Marks	L2	CO2
6.	Classify the two digital devices commonly examined in forensic investigations.	2 Marks	L2	CO2
7.	Define war-driving and state its purpose.	2 marks	L1	CO3
8.	Explain war-chalking, and how is it used in wireless security?	2 marks	L2	CO3
9.	Why is maintaining the chain of custody important in handling mobile phone evidence and explain in detail.	2 marks	L2	CO4
10.	Why are contacts and SMS stored in a SIM card considered useful for forensic analysis?	2 marks	L2	CO4

Part - B

Answer the Questions.   **Total Marks: 80M**

11.	**a.**	Illustrate the various types of cybercrime and provide examples for each type.	10 Marks	L2	CO1

	b.	Summarize the challenges faced by digital forensic experts while extracting evidence from digital devices.	10 Marks	L2	CO 1
OR					
12.	a.	Explain the different phases of digital forensics and their significance in cybercrime investigations.	10 Marks	L2	CO 1
	b.	Explain digital evidence? Discuss its importance and challenges in cybercrime investigations.	10 Marks	L2	CO 1
13.	a.	Illustrate the challenging aspects of digital evidence, including issues related to volatility, integrity, encryption, and jurisdiction.	10 Marks	L2	CO 2
	b.	Classify the Previewing and Imaging in digital forensics. Why is imaging preferred in forensic investigations?	10 Marks	L2	CO 2
OR					
14.	a.	Discuss common anti-forensics techniques used by criminals to hide or destroy digital evidence. How can investigators detect and counteract these techniques?	10 Marks	L2	CO 2
	b.	Explain the purpose of previewing in a digital forensics' examination? How does it help investigators identify potential evidence without altering the original data?	10 Marks	L2	CO 2
15.	a.	Explain the process of mobile phone forensic investigation. Describe the tools and techniques used to recover data from smartphones during a forensic examination.	10 marks	L2	CO 3
	b.	List and explain the forensic guidelines that must be followed during mobile phone collection, preservation, analysis, and presentation in court.	10 marks	L5	CO 3
OR					
16.	a.	Summarize the key forensic rules for handling cellular phone evidence. Critically examine how these rules ensure admissibility in court.	10 marks	L2	CO 3
	b.	Discuss the concept of war-driving in detail. What are its implications for wireless network security, and what countermeasures can organizations adopt?	10 marks	L5	CO 3
17.	a.	Explain the types of data typically stored on a SIM card and explain their significance in forensic investigations.	10 marks	L2	CO 4
	b.	Summarize at least three popular mobile forensic tools. Highlight their features, strengths, and limitations.	10 marks	L2	CO 4
OR					
18.	a.	Illustrate the standard forensic procedure for the seizure, preservation, and examination of a mobile phone.	10 marks	L2	CO 4
	b.	Explain the structure and function of a SIM card in mobile communication. What role does it play in digital forensic investigations?	10 marks	L2	CO 4