VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE & ENGINEETING
CONTINUOUS ASSESSMENT TEST - II
WINTER SEMESTER 2024-2025

Programme Name & Branch	: B.Tech & CSE
Course Code and Course Name	: BCSE322L and Digital Forensics
Faculty Name(s)	: Dr. Aju D
Class Number(s)	: VL2024250501658
Date of Examination	: 320 Mar 2025
Exam Duration	: 90 minutes

SLOT: E2

Maximum Marks: 50

Q. No	Question (Answer ALL Questions)	M	CO	BL
1.	Exemplify the structure and functioning of the Windows/DOS file system, including its key components such as FAT, NTFS, and directory management. Additionally, describe the boot sequence of a DOS-based or Windows operating system in detail, outlining each stage from power-on to loading the operating system.	10	2	2
2.	Explain the concept of Whole Disk Encryption (WDE) and its role in securing data on storage devices. Discuss the methods used to decrypt encrypted drives, including key recovery techniques and forensic approaches. Additionally, analyze the challenges faced by forensic investigators when dealing with encrypted drives and the legal implications of bypassing encryption protections.	10	3	4
3.	Explain the concept of Distributed Digital Forensics and its significance in modern forensic investigations. Discuss how distributed forensic frameworks enable investigators to analyze digital evidence across multiple systems or locations. Additionally, highlight the advantages, challenges used in distributed digital forensics.	10	4	4
4.	The Enron scandal, one of the most infamous corporate fraud cases in history, led to the bankruptcy of Enron Corporation in 2001. During the investigation, email forensics played a crucial role in uncovering fraudulent activities, insider trading, and financial misconduct by Enron executives. In this regards, illustrate the digital forensics investigation procedure to solve the respective scandal and expose the Enron executives.	10	5	1
5.	Discuss the role of social media forensics in reconstructing the past events and identifying criminal activity in social media. Explain the forensic techniques used to analyze posts, messages, metadata, and multimedia content for evidence. Additionally, explore challenges such as data tampering, anonymity that investigators face in tracking digital footprints on social media platforms.	10	5	5

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