

**SES's L.S. RAHEJA COLLEGE OF ARTS AND COMMERCE
(AUTONOMOUS)**



BOARD OF STUDIES: Information Technology and Data Science

Programme: B.Sc. (Cyber Security & Digital Forensics)

Semester: II

Nomenclature of the Course: Digital Forensics Tools – Fundamentals

NEP Vertical: VSC

Credit: 02

Total Marks: 50

Academic Year: 2026–27

(As per Choice Based Credit System under NEP 2020)



Unit-wise Detailed Syllabus

Unit	Detailed Contents	Andragogy	Hours
Unit I: Fundamentals of Digital Forensics	1. Introduction to Digital Forensics 2. Forensic Process Model 3. Chain of Custody 4. Types of Digital Evidence 5. Disk Imaging Concepts 6. Hashing & Integrity Verification 7. Legal Admissibility of Evidence	Concept explanation with forensic workflow diagrams. Hands-on: • Demonstration of hashing (MD5/SHA) • Evidence documentation format • Case study analysis	15
Unit II: Introduction to Forensic Tools	1. Overview of Forensic Tools (Autopsy, FTK – Conceptual) 2. Disk Analysis Basics 3. File Recovery Concepts 4. Log File Analysis 5. Email Forensics (Overview) 6. Browser Forensics Basics 7. Reporting & Documentation	Tool demonstration sessions. Hands-on: • Basic analysis using Autopsy (demo) • File recovery simulation • Log file examination • Prepare simple forensic report	15

Learning Objectives

1. To understand digital forensic process.
2. To learn evidence acquisition principles.
3. To analyze digital evidence using basic tools.
4. To prepare forensic documentation reports.

Course Outcomes (CO)

CO No.	Course Outcome	Bloom's Level
CO1	Explain digital forensic process	Understand (L2)
CO2	Demonstrate hashing and integrity verification	Apply (L3)
CO3	Analyze basic digital evidence using tools	Analyze (L4)
CO4	Prepare forensic documentation report	Apply (L3), Evaluate (L5)

QUESTION PAPER PATTERN

(A) Continuous Evaluation – 20 Marks

Particulars	Marks
Class Test	10
Activity Journal / Tool-based Assignment	10
Total	20

(B) Semester End Examination – 30 Marks

Duration: 1 Hour

Question No.	Description	Total Marks
Q1	Attempt Unit I	15
	A – Remembering	
	B – Analysing	
	C – Applying	
OR		
	P – Remembering	15
	Q – Analysing	
	R – Applying	
Q2	Attempt Unit II	15
	A – Remembering	
	B – Analysing	
	C – Applying	
OR		
	P – Remembering	15
	Q – Analysing	
	R – Applying	