NARASIMHA REDDY ENGINEERING COLLEGE
(Autonomous)
Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad
Accredited by NAAC with A Grade, Accredited by NBA

COMPUTER SCIENCE AND ENGINEERING

QUESTION BANK

Course Title : **Computer Forensics**

Course Code : **CS3213OE**

Regulation : **NR20**

Course Objectives:
- **T**o understand the cyberspace.
- To understand the **forensics** fundamentals.
- To understand the evidence capturing process.
- To understand the preservation of **digital** evidence.

Course Outcomes (CO's)

- Students will understand the usage of computers in forensic, and how to use various forensic tools for a wide variety of investigations.
- It gives an opportunity to students to continue their zeal in research in computer forensics.
- Able to identify the digital evidence.
- Evaluating computer forensic tool needs.
- Understanding file systems, examining NTFS disks.

UNIT–I

S.No	Questions	BT	CO	PO
	Part –A(Short Answer Questions)			
1	What is Computer Forensics?	L1	CO1	PO1,PO5
2	List the Use of Computer Forensics in Law enforcement.	L1	CO1	PO1, PO5
3	Write three types of Computer Forensics Technologies.	L1	CO1	PO1, PO5
4	List the Steps taken by Computer Forensics Specialists	L1	CO1	PO1, PO5
5	What are the benefits of professional forensics methodology?	L1	CO1	PO1, PO5
6	What is the role of a computer in a crime?	L1	CO1	PO1, PO5
7	What are the problems of computer forensics evidence?	L1	CO1	PO1, PO5
8	List the Types of Law Enforcement.	L1	CO1	PO1, PO5
9	List the Computer Forensics Services.	L1	CO1	PO1, PO5

10		Give a note on Data recovery solution	L1	CO1	PO1, PO5
Part– B(Long Answer Questions)					
11	a)	Explain the Steps taken by Computer Forensics Specialist.	L6	CO1	PO1, PO5
	b)	Discus the Purpose of Computer Forensics	L5	CO1	PO1, PO5
12	a)	List and explain the Benefits of professional Forensics Methodology.	L2	CO1	PO1, PO5
	b)	What is the solution for data recovery.	L2	CO1	PO1, PO5
13	a)	Explain briefly about Role of backup in data recovery	L2	CO1	PO1, PO5
	b)	Explain briefly about Data recovery solution	L1	CO1	PO1, PO5
14	a)	Describe the Computer Forensic Technology.	L2	CO1	PO1, PO5
	b)	Explain Types of Business Computer Forensic Technology.	L2	CO1	PO1, PO5
15	a)	Discuss the Computer Forensics Evidence and capture.	L2	CO1	PO1, PO5
	b)	Discuss the Types of Computer Forensics Technology	L2	CO1	PO1, PO5
16	a)	Is backup necessary in data recovery? explain why.	L2	CO1	PO1, PO5
	b)	What are the technologies of computer forensics.	L2	CO1	PO1, PO5

UNIT–II

S.No	Questions	BT	CO	PO
Part –A(Short Answer Questions)				
1	Why Collect Evidence?	L1	CO2	PO2,PO4
2	List the Rules of Evidence.	L1	CO2	PO2,PO4
3	Write the Preserving the Digital Crime Scene.	L1	CO2	PO2,PO4
4	Write the Collection Steps of Evidence in Sequence.	L1	CO2	PO2,PO4
5	How Authenticode works with VeriSign Digital IDs?	L1	CO2	PO2,PO4
6	How do you seize digital evidence in forensics?	L1	CO2	PO2,PO4
7	What is seizure of digital evidence?	L1	CO2	PO2,PO4
8	What are the 5 rules when collecting electronic evidence?	L1	CO2	PO2,PO4
9	How do you create a digital forensic duplication?	L1	CO2	PO2,PO4
10	What is preservation of digital evidence?	L1	CO2	PO2,PO4
Part– B(Long Answer Questions)				

11	a)	Write five rules of Evidences and Explain in Brief.	L2	CO2	PO2,PO4
	b)	Explain the Concept of Digital ID.	L2	CO2	PO2,PO4
12	a)	Discuss the complete legal Aspects of Collecting and Preserving Computer Forensic Evidence.	L3	CO2	PO2,PO4
	b)	Elaborate the Role of Evidence in Computer Forensics and Explain special needs of evidential authentication.	L2	CO2	PO2,PO4
13	a)	Explain the complete process of "Microsoft's Authenticode – VeriSign" Digital IDs Process.		CO2	PO2,PO4
	b)	Discuss the Preserving the Digital Crime Scene.	L2	CO2	PO2,PO4
14	a)	Explain the Computer Evidence processing steps.	L2	CO2	PO2,PO4
	b)	Elaborate the Special needs of Evidential Authentication.		CO2	PO2,PO4
15	a)	Describe the Computer image Verification and Authentication.	L2	CO2	PO2,PO4
	b)	Explain the Evidence Collection and Data Seizure.	L4	CO2	PO2,PO4
16	a)	Explain special needs of evidential authentication	L2	CO2	PO2,PO4
	b)	How to Preserve Computer Forensic Evidence.	L2	CO2	PO2,PO4

UNIT–
III

S.No	Questions	BT	CO	PO
	Part –A(Short Answer Questions)			
1	How are standard procedures developed for network forensics?	L1	CO3	PO2
2	Write about how to secure a Network.	L1	CO3	PO2
3	What are the three rules of forensic hash?	L1	CO3	PO2
4	Explain how to validate Forensic Data with an Example?	L1	CO3	PO2
5	What is computer forensic validation?	L1	CO3	PO2
6	How to validate forensic data?	L1	CO3	PO2
7	Write the performing remote acquisitions.	L1	CO3	PO2
8	What is computer forensic validation?	L1	CO3	PO2

			BT	CO	PO
9		What are the five steps in the computer forensics process?	L1	CO3	PO2
10		What is data analysis process in forensic?	L1	CO3	PO2
Part– B(Long Answer Questions)					
11	a)	List and explain the tools used in network forensics.	L2	CO3	PO2
	b)	Explain the addressing data-hiding techniques.	L2	CO3	PO2
12	a)	Discuss the Determining what data to collect and analyze.	L2	CO3	PO2
	b)	What are the 5 parts for processing a crime scene and who perform them? Explain	L2	CO3	PO2
13	a)	Explain the procedure of processing the crime scene.	L2	CO3	PO2
	b)	Describe the processing law enforcement crime scenes.	L1	CO3	PO2
14	a)	Illustrate the securing a computer incident or crime scene.	L4	CO3	PO2
	b)	Elaborate the seizing digital evidence at the scene.	L2	CO3	PO2
15	a)	Describe the storing digital evidence.	L4	CO3	PO2
	b)	Explain the Network forensic overview.	L1	CO3	PO2
16	a)	How to secure a computer incident.	L1	CO3	PO2
	b)	What are the techniques of data hiding.	L1	CO3	PO2

UNIT–
IV

S.No	Questions	BT	CO	PO
Part –A(Short Answer Questions)				
1	What are the methods of email forensic investigation?	L1	CO4	PO1,PO5
2	What is email investigation?	L3	CO4	PO1,PO5
3	What is forensic analysis of email?	L1	CO4	PO1,PO5
4	What is email analysis in cyber security?	L1	CO4	PO1,PO5
5	What does mobile phone forensics do?	L1	CO4	PO1,PO5
6	How evidence forensics can be obtain from cell phones?	L1	CO4	PO1,PO5
7	How cell phones and other technology can be used in forensic science?	L1	CO4	PO1,PO5
8	What are the forensic techniques that can be applied to mobile devices?	L2	CO4	PO1,PO5
9	What type of evidence can be collected from and mobile device?	L1	CO4	PO1,PO5

			BT	CO	PO
10		What are computer forensics tools?	L1	CO4	PO1,PO5
		Part– B(Long Answer Questions)			
11	a)	Explain the validating and testing forensic software.	L2	CO4	PO1,PO5
	b)	Discuss the evaluating computer forensic tool needs.	L2	CO4	PO1,PO5
12	a)	Illustrate the computer forensic software tools.	L4	CO4	PO1,PO5
	b)	Discuss the computer forensic hardware tools.	L1	CO4	PO1,PO5
13	a)	Describe the investigating email crimes and violations.	L2	CO4	PO1,PO5
	b)	Explain the understanding acquisition procedures for cell phones and mobile devices.	L4	CO4	PO1,PO5
14	a)	Explain the Understanding mobile device forensic.	L1	CO4	PO1,PO5
	b)	Elaborate the Exploring the role of email in investigations.	L2	CO4	PO1,PO5
15	a)	Describe the exploring the role of client and server in email.	L2	CO4	PO1,PO5
	b)	Explain the using specialized email forensic tools.	L2	CO4	PO1,PO5
16	a)	Describe the testing of forensic software.	L2	CO4	PO1,PO5
	b)	List out the violations and investigations of email crimes.	L1	CO4	PO1,PO5

UNIT–V

S.No	Questions	BT	CO	PO
	Part –A(Short Answer Questions)			
1	What is use of registers in windows?	L1	CO5	PO4,PO5
2	What do you mean by encrypting a disc?	L1	CO5	PO4,PO5
3	What is the difference between Windows and DOS operating system?	L1	CO5	PO4,PO5
4	What are Microsoft startup tasks?	L1	CO5	PO4,PO5
5	What are the 4 basic types of encryption systems?	L1	CO5	PO4,PO5
6	What is MS-DOS and why it is used for?	L1	CO5	PO4,PO5
7	Difference between DOS and Windows.	L1	CO5	PO4,PO5
8	Define virtual machines.	L1	CO5	PO4,PO5
9	How can you switch between DOS and Windows?	L1	CO5	PO4,PO5
10	What is virtual machine and how does it work?	L1	CO5	PO4,PO5
	Part– B(Long Answer Questions)			

11	a)	Discuss about Virtual Machines	L2	CO5	PO4,PO5
	b)	Write short notes on a. Microsoft File Structures. b. Microsoft Startup Tasks.	L2	CO5	PO4,PO5
12	a)	Explain the NTFS Encrypting File System.	L2	CO5	PO4,PO5
	b)	Explain the features of NTFS.	L2	CO5	PO4,PO5
13	a)	Discuss the Windows Registry Commands.	L2	CO5	PO4,PO5
	b)	Elaborate the understanding file systems.	L4	CO5	PO4,PO5
14	a)	Give a brief note on MS Dos startup tasks.	L2	CO5	PO4,PO5
	b)	What are virtual machines give examples? Explain	L2	CO5	PO4,PO5
15	a)	Elaborate the Microsoft startup tasks.	L1	CO5	PO4,PO5
	b)	Illustrate MS Dos startup tasks.	L4	CO5	PO4,PO5
16	a)	Describe the structure of Microsoft File.	L1	CO5	PO4,PO5
	b)	List out the features of NTFS.	L1	CO5	PO4,PO5

***BloomsTaxonomyLevel(BT)**(L1–Remembering;L2–Understanding;L3–Applying;L4–Analyzing;L5–Evaluating;L6–Creating)

Course Outcomes (CO)Program Outcomes(PO)

Prepared By: ANUSHA.K

   Assistant Professor

    CSE

                                    HOD, CSE

Q.P Code: CS3210E   Hall Ticket No.:

NARSIMHA REDDY ENGINEERING COLLEGE(UGC

MODEL QUESTION PAPER

AUTONOMOUS)

III B.Tech lI Semester (NR20) Regular Examination, JUNE/JULY 2023

COMPUTER FORENSICS

(CSE / CS/DS/AI&ML)

Time :3 hours   Maximum marks: 75

Note:
- This question paper contains two parts A and B
- Part A is compulsory which carries 25 marks (1st 5 sub questions are one from each unit carry 2 Marks each & Next 5 sub questions are one from each unit carry 3 Marks). Answer all questions in Part A
- Part B Consists of 5 Units. Answer any one full question from each unit. Each question carries 10 Marks and may have a, b sub questions

Part-A   **(25 Marks)**
Answer all questions

Q.No		Question	M	BL	CO	PO
1)	a.	What is Computer Forensics?	2	L1	CO1	PO1, PO5
	b.	List the Use of Computer Forensics in Law enforcement.	2	L1	CO1	PO1, PO5
	c.	List the Rules of Evidence.	2	L1	CO2	PO2,PO4
	d.	Write the Preserving the Digital Crime Scene.	2	L1	CO2	PO2,PO4
	e.	How are standard procedures developed for network forensics?	2	L1	CO3	PO2
	f.	Write about how to secure a Network.	3	L1	CO3	PO2
	g.	How evidence forensics can be obtain from cell phones?	3	L1	CO4	PO1,PO5
	h.	How cell phones and other technology can be used in forensic science?	3	L1	CO4	PO1,PO5
	i.	What are Microsoft startup tasks?	3	L1	CO5	PO4,PO5

Q.No		Question	M	BL	CO	PO
j.		What are the 4 basic types of encryption systems?	3	L1	CO5	PO4,PO5

Part-B   **(50 Marks)**
Answer any fivequestions
All Questions carry equal
Marks

Q.No		Question	M	BL	CO	PO
		UNIT–I				
2)	a.	Explain the Steps taken by Computer Forensics Specialist.	5	L2	CO1	PO1, PO5
	b.	Discus the Purpose of Computer Forensics	5	L2	CO1	PO1, PO5
		OR				
3)	a.	Explain briefly about Role of backup in data recovery	5	L3	CO1	PO1, PO5
	b.	Explain briefly about Data recovery solution	5	L2	CO1	PO1, PO5
		UNIT–II				
4)	a.	Write five rules of Evidences and Explain in Brief.	5	L2	CO2	PO2,PO4
	b.	Explain the Concept of Digital ID.	5	L2	CO2	PO2,PO4
		OR				
5)	a.	Explain the complete process of "Microsoft's Authenticode – VeriSign" Digital IDs Process.	5	L3	CO2	PO2,PO4
	b.	Discuss the Preserving the Digital Crime Scene.	5	L3	CO2	PO2,PO4
		UNIT–III				
6)	a.	List and explain the tools used in network forensics.	5	L2	CO3	PO2
	b.	Explain the addressing data-hiding techniques.	5	L2	CO3	PO2
		OR				
7)	a.	Discuss the Determining what data to collect and analyze.	5	L1	CO3	PO2
	b.	What are the 5 parts to processing a crime scene and who perform them? Explain	5	L1	CO3	PO2
		UNIT–IV				
8)	a.	Explain the validating and testing forensic software.	5	L1	CO4	PO1,PO5
	b.	Discuss the evaluating computer forensic tool needs.	5	L4	CO4	PO1,PO5
		OR				
9)	a.	Illustrate the computer forensic software tools.	5	L3	CO4	PO1,PO5
	b.	Discuss the computer forensic hardware tools.	5	L4	CO4	PO1,PO5
		UNIT–V				

10)	a.	Explain the NTFS Encrypting File System.	5	L2	CO5	PO4,PO5
	b.	Explain the features of NTFS.	5	L4	CO5	PO4,PO5
OR						
11)	a.	Elaborate the Microsoft startup tasks.	5	L2	CO5	PO4,PO5
	b.	Illustrate MS Dos startup tasks.	5	L2	CO5	PO4,PO5

M – Marks   **CO –** Course Outcomes   **PO –** Program Outcomes

BL – Bloom's Taxonomy Levels (**L1–**Remembering, **L2–**Understanding, **L3–**Applying,**L4–**Analyzing, **L5–**Evaluating, **L6–**Creating)