

**CMR ENGINEERING COLLEGE: : HYDERABAD****UGC AUTONOMOUS****III-B.TECH-II-Semester End Examinations (Regular) - June- 2025****CYBER CRIME INVESTIGATION AND DIGITAL FORENSICS****(CSC)****[Time: 3 Hours]****[Max. Marks: 60]****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 10 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, c as sub questions.

**PART-A****(10 Marks)**

1. a) Which device might store volatile digital evidence? [1M]
- b) What does "integrity" of digital evidence mean? [1M]
- c) If evidence is spread across multiple devices, how would you handle them? [1M]
- d) How could failure in evidence preservation impact the case? [1M]
- e) If a deleted photo is recovered, how might it aid the investigation? [1M]
- f) How can location data support or challenge a suspect's statement? [1M]
- g) Why might manual inspection be preferred over automated tools in some cases? [1M]
- h) How would you examine deleted emails on a suspect's computer? [1M]
- i) Which type of network evidence packet capture or flow data is more reliable and why? [1M]
- j) Suggest a simple logging format for network traffic evidence. [1M]

**PART-B****(50 Marks)**

2. How might an investigator recognize the presence of digital evidence during a crime scene survey? [10M]

**OR**

3. What could be the reasons for digital evidence being considered more fragile than physical evidence? [10M]

4. How might a forensic analyst determine which model of investigation to use in a new case? [10M]

**OR**

5. What steps would you take to survey and secure a digital crime scene in a corporate breach? [10M]

6. How might digital evidence differ in cases of premeditated vs. impulsive violent crimes? [10M]

**OR**

7. What types of digital tools might be used in planning or executing a violent crime? [10M]

8. How do differences in file structure between Windows and Unix affect forensic data recovery? [10M]

**OR**

9. Write the procedure how you determine if forensic software has altered the original system data? [10M]

10. What are the strengths and limitations of applying traditional forensic tools to live network traffic? [10M]

**OR**

11. Create a policy for logging and preserving evidence during a suspected ransomware attack. [10M]

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