# C1001

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## **MIT (CS)-202/PGDCS-06**

## **Digital Forensic**

## (MSCCS-18/PGDCS-17)

2nd Semester Examination, 2022 (June)

Time : 2 Hours]

### Max. Marks : 80

**Note :** This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

## SECTION-A

## (Long Answer Type Questions)

**Note :** Section 'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 20 = 40)$ 

- 1. Answer the following : (5 marks each)
  - (a) What are the four stages of computer forensic process?
  - (b) What are the objectives of computer forensics?

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- (c) What is the role of a forensics investigator?
- (d) What is continuity of evidence?
- **2.** Answer the following:
  - (a) State Locard's Principle. (4)
  - (b) What is best evidence rule? Under what circumstances the duplicate copy of the digital evidence is admissible for lawful purposes? (8)
  - (c) What are the essential characteristics of digital evidence? (8)
- **3.** Answer the following :
  - (a) What do you mean by "shadow copy" of the World Wide Web and 'cloaked' URL? Where does it take place? Describe in detail. (10)
  - (b) How is privacy a big issue in emailing? (5)
  - (c) What are the various types of email services? (5)
- 4. Answer the following :
  - (a) What are the different steps involved in the assessment of the situation? (7)
  - (b) What are the important guidelines for forming an investigating team? (7)
  - (c) How the authenticity of the digital evidence can be proved? (6)

- 5. Answer the following :
  - State major features of wireshark tool. (6)(a)
  - (b) What is promiscuous mode in networking? (5)
  - Describe any 3 web application forensic tools. (c)

(9)

### **SECTION-B**

### (Short Answer Type Questions)

- **Note :** Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only.  $(4 \times 10 = 40)$
- 1. Answer the following :
  - What is network sniffing? List some popular tools used (a) for packet sniffing. (5)
  - List all the important sections that should be included (b) in the investigation report. (5)
- Answer the following : (5 marks each) 2.
  - What is a file system? Why it is used? (a)
  - What are different types of File Systems? Explain in (b)detail.
- 3. Answer the following : (5 marks each)
  - What do you understand by network tapping and port (a) mirroring?

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- (b) How are the network logs captured and analyzed? Explain.
- **4.** Answer the following:
  - (a) Why the testimonies of the experts are becoming increasingly important these days? (5)
  - (b) Describe the various steps of report preparation in detail. (5)
- **5.** Answer the following :
  - (a) List all the important sections that should be included in the investigation report. (5)
  - (b) What are the different techniques of digital forensics? (5)
- **6.** Answer the following :
  - (a) Explain the working of HDD
  - (b) What is cyclic redundancy check (CRC)? (5)
- 7. Explain various types of mobile communications and relate this to forensic investigation.
- **8.** State the usage and forensic importance of PsLoggedon, Netsessions, logonsessions tools.