

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS:M.Tech  
BRANCH:IS**

**SEMESTER: II  
SESSION: SP/22**

**SUBJECT: IT515 DIGITAL FORENSICS**

**TIME: 2 HRS**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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|--------|---|---------------|-----|
| Q.1(a) | Illustrate the goals of digital forensic investigation.   | BT2, CO1, CO2 | [5] |
| Q.1(b) | How would you classify the different types of digital evidence? Explain the characteristics of each of them.                    | BT2, CO1, CO2 | [5] |
| Q.2(a) | Explain the importance of Reconnaissance in the ethical hacking process.  | BT6, CO2, CO3 | [5] |
| Q.2(b) | Discuss the stages involved in incident response handling.  | BT2, CO2, CO3 | [5] |
| Q.3(a) | What are the three methods of Forensic imaging? Briefly discuss the advantages and disadvantages of each.                       | BT5, CO4      | [5] |
| Q.3(b) | Explain the use of Write Blocking during the process of Forensic duplication.   | BT2, CO4      | [5] |
| Q.4(a) | Categorize the different types of Intrusion Detection Systems based on their working.   | BT4, CO5      | [5] |
| Q.4(b) | How can an intrusion attack be planned on a system by using address spoofing?   | BT3, CO5      | [5] |
| Q.5(a) | Summarize the working of an Email communication system. In what ways can an attacker use Email communication to plan an attack? | BT2, CO5      | [5] |
| Q.5(b) | Explain the role of Header analysis in Email forensics.   | BT4, CO5      | [5] |

**:::::06/05/2022 E:::::**

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**(END SEMESTER EXAMINATION)**

**CLASS:M.Tech**

**SEMESTER: II**

**BRANCH:IS**

**SESSION: SP/19**

**SUBJECT: IT515 DIGITAL FORENSICS**

**TIME: 2 HRS**

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|--------|--|---------------|-----|
| Q.1(a) | Discuss the procedure of Evidence handling.  | BT2, CO1      | [5] |
| Q.1(b) | Explain the abstract digital forensic model framework of digital investigation.                      | BT2, CO1, CO2 | [5] |
| Q.2(a) | What characteristics distinguish a White hat from a Black hat hacker?                                | BT4, CO2, CO3 | [5] |
| Q.2(b) | How would you classify the different types of Ethical hacks?   | BT2, CO2, CO3 | [5] |
| Q.3(a) | Illustrate the different rules of Forensic duplication.  | BT2, CO4      | [5] |
| Q.3(b) | Discuss the tools required for forensic duplication.   | BT2, CO4      | [5] |
| Q.4(a) | Discuss the various ways in which password cracking is done by hackers.                              | BT2, CO2, CO5 | [5] |
| Q.4(b) | Distinguish the different ways of network monitoring.  | BT4, CO5      | [5] |
| Q.5(a) | Briefly discuss the working of Email forensic tools that help in tracing the location of the sender. | BT2, CO5      | [5] |
| Q.5(b) | Elaborate the different Mobile hacking attacks. How are they manifested?                             | BT6, CO5      | [5] |

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