

Reg. No.									
----------	--	--	--	--	--	--	--	--	--



**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
*(A constituent unit of MAHE, Manipal)*

VII SEMESTER B.TECH. (CSE)  
 MAKE UP EXAMINATION-DEC 2019  
 SUBJECT: INFORMATION SECURITY [CSE 4014]  
 REVISED CREDIT SYSTEM  
 (31/12/2019)

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

- |  |              |
|--|--------------|
| 1A. Explain the multiple layers of security needed in an army headquarters.  | 3            |
| 1B. Explain the components of an information system. Explain what you mean by balancing security and access.   | 4            |
| 1C. Explain the following:   | 3            |
| i. Trojan Horse  | ii. Phishing |
| iii. Social Engineering  |              |
| 2A. Draw neat diagrams and explain distributed intrusion detection.  | 3            |
| 2B. Discuss the different phases in the life cycle of a virus? Explain the different generations of anti-virus software.                                     | 4            |
| 2C. What are the limitations of a firewall? Explain the attacks on packet filters.   | 3            |
| 3A. What is the need for a Two-phase update? Give a suitable example and explain how two phase update works. Clearly write all the steps in both the phases. | 5            |
| 3B. What is inference problem? Explain the different types of inference attacks. Give an example for each.   | 5            |
| 4A. What is SSL alert protocol? Explain the various alert messages.  | 5            |
| 4B. Explain the various PGP services.  | 5            |

- |     |  |   |
|-----|--|---|
| 5A. | Explain Oakley algorithm.  | 3 |
| 5B. | What is a cyber crime? Discuss the different ways in which cyber crimes are carried out. | 4 |
| 5C. | Explain IT Act 2000.   | 3 |

\*\*\*\*\*