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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

VII SEMESTER B.TECH. (COMPUTER SCIENCE & ENGINEERING) DEGREE
MAKEUP EXAMINATION-DEC 2018
SUBJECT: INFORMATION SECURITY (CSE 4014)
REVISED CREDIT SYSTEM
(31/12/2018)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

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

- 1A. What is CNSS security model? Explain the multiple layers of security that are needed for an IT company. 4M
- 1B. Explain any three technical threats and any three non-technical threats to information security. 3M
- 1C. Explain the following: 3M
 - i. Trojan Horse
 - ii. Mail Bombing
 - iii. Social Engineering
- 2A. Explain the classification of intruders based on behavior patterns. 3M
- 2B. Draw a neat diagram and explain a digital immune system. 4M
- 2C. What is a firewall? What are its capabilities? 3M
- 3A. What are the advantages of using databases? Explain the security requirements of database systems. 5M
- 3B. Explain the different designs of multilevel secure databases. 5M
- 4A. Give the classification of web security threats. Along with a neat diagram explain SSL record protocol operation. Write the SSL record format. 4M
- 4B. Draw a neat diagram and explain PGP compression by taking a suitable example. Calculate the compression ratio. 3M

- 4C. Explain security association database. 3M
- 5A. Explain IPSec services. 3M
- 5B. Define cybercrime. Explain the different ways in which cybercrime is carried out. 4M
- 5C. Explain how to deal with rising tide of cybercrimes. 3M
