Reg. No.										

Manipal Institute of Technology, Manipal

(A Constituent Institute of Manipal University)

I SEMESTER M.TECH (COMPUTER SCIENCE AND INFORMATION SECURITY) END SEMESTER EXAMINATIONS, NOV/DEC 2015

SUBJECT: SECURITY ARCHITECTURE-DESIGN AND ANALYSIS

[CSE 525]

REVISED CREDIT SYSTEM
DATE: 26-11-2015

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

- Answer **ANY FIVE FULL** questions.
- Missing data, if any, may be suitably assumed.

1A. Explain ping of death and smurf attacks. 4M
1B. Explain different types of social engineering tools to mount an attack. 3M
1C. Explain three levels associated with operating system security. 3M

2A. With neat diagram analyze use-case and misuse for e-commerce application. 4M
2B. Explain the DREAD security threat model. 4M
2C. Explain the different areas to be journalled while doing logging and auditing. 2M

3A. Explain data scavenging attack. Is it is impossible to detect? Give two reasons. 3M
3B. Explain the different components of router hardening strategy. 4M
3C. Explain the three different roles of identity in securing the network. 3M

4A. Explain the Layer 2 looping problem and explain how spanning tree protocol (STP) removes it. 5M
4B. Explain four types of attacks on routing and their mitigation mechanisms. 5M

5A. Explain with neat diagram three-tier web design (with two firewalls). 4M
5B. With neat diagram explain ESP in transport and tunnel mode. 4M
5C. Explain latency and jitter problems associated with VoIP. 2M

6A. Explain four methods to identify rogue access points (APs). 4M
6B. With neat diagram explain WEP encryption and decryption process. 4M
6C. Differentiate between high availability (HA) and load balancing (LB). 2M

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