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

II SEMESTER M.TECH. (CSIS)
MAKEUP EXAMINATION-JUNE 2019
SUBJECT: NETWORK SECURITY [CSE 5222]
REVISED CREDIT SYSTEM
(10/06/2019)

Time: 3 Hours   MAX. MARKS: 50

Instructions to Candidates:

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

1A.	What is a CIA triad? Explain the levels of impact associated with breach of security.	3M
1B.	Explain the different types of security attacks.	3M
1C.	Explain the various DBR infection techniques used by viruses.	4M
2A.	Briefly explain any six first generation scanners.	3M
2B.	What are the design goals of a firewall? List out any three firewall limitations.	3M
2C.	Differentiate between intrusion prevention and intrusion detection. Explain rule-based intrusion detection.	4M
3A.	Explain the different classes of intruders. Give an example for each.	3M
3B.	What are the benefits of IPSec? What is the difference between transport mode and tunnel mode in IPSec?	3M
3C.	Write the packet formats and explain ESP encryption and authentication on IPV6 packet.	4M
4A.	What are the features of photuris protocol? Draw neat diagrams and explain IKE phase-1 protocols based on pre-shared secret keys.	5M
4B.	Draw the time line diagram and explain SSL handshake protocol. Explain how round constants K_0-K_{79} and words W_0-W_{79} are generated in SHA-512 algorithm.	5M

5A. Explain message compression and Email compatibility provided in PGP   5M
protocol.

5B. Describe the working of Kerberos version 5 protocol. Mention any four   5M
flags used in Kerberos version 5 protocol.

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