Eighth Semester B.E. Degree Examination, June/July 2019
Information and Network Security

Time: 3 hrs.   Max. Marks:100

**Note: *Answer FIVE full questions, selecting
atleast TWO questions from each part.***

PART – A

1   a. Explain the elements and components of enterprise information security policy.   **(10 Marks)**
    b. What is contingency planning? Explain in detail incident response planning.   **(10 Marks)**

2   a. What is firewall? Explain the packet filtering firewall.   **(08 Marks)**
    b. With a neat diagram, explain the screened subnet firewall with DMZ.   **(06 Marks)**
    c. What is VPN? Explain the tunnel mode of implementing a VPN.   **(06 Marks)**

3   a. What is IDS? Explain network based intrusion detection system. Also mention its advantages and disadvantages.   **(08 Marks)**
    b. Explain the signature based IDP's method used to monitor and evaluate the network traffic.   **(06 Marks)**
    c. Explain Honey pots.   **(06 Marks)**

4   a. What is cryptography? Explain the vernam cipher method used to encrypt the plaintext. Apply the same method to encrypt the plaintext COMPUTER SECURITY using one time pad INFORMATION WORLD.   **(08 Marks)**
    b. Differentiate between symmetric and asymmetric encryption.   **(04 Marks)**
    c. Explain the different categories of attacks on the cryptosystem.   **(08 Marks)**

PART – B

5   a. Define a attack? Explain the different types of active and passive attacks.   **(07 Marks)**
    b. Explain the Kerberos version 4 message exchanges.   **(08 Marks)**
    c. With a neat diagram, explain the various fields of X·509 certificate format.   **(05 Marks)**

6   a. With a neat diagram, explain the authentication and confidentiality services provided by PGP.   **(10 Marks)**
    b. Explain the different MIME content types.   **(10 Marks)**

7   a. What is security association? Explain the different parameters associated with SA. **(08 Marks)**
    b. Explain the anti-replay mechanism.   **(05 Marks)**
    c. Explain the format of an ESP packet in IP security.   **(07 Marks)**

8   a. With a neat diagram, explain the operation of SSL record protocol.   **(08 Marks)**
    b. Explain the different participants in SET system.   **(06 Marks)**
    c. Explain the construction of dual signature in SET protocol.   **(06 Marks)**

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