(Please write your Exam Roll No.) Exam Roll No. 4061420 2016

END TERM EXAMINATION

(10)

SIXTH SEMESTER [BCA] MAY 2019

Paper Code: BCA-314 **Subject: Computer Network & Information Security**

Time: 3 Hours **Maximum Marks: 75**

Note: Attempt any five questions including Q.No.1 which is compulsory. Select one question from each unit.

Q1 Answer **any five** of the following questions: **(5X5=25)**

(a) Discuss the various attributes of Information Security.

(b) Discuss the differences between Symmetric & Asymmetric Key cryptography.

(c) What do you mean by Digital Signature? Discuss its usage. How digital signatures can be acquired?

(d) Discuss Virtual Private Network (VPN). How tunneling is achieved using IPSEC?

(e) Discuss Bastion Host.

(f) Differentiate between Teardrop attack and Smurf attack using suitable example of each one.

UNIT-I

Q2 (a) Discuss Steam Cipher and Block Cipher with the help of an example. **(6)**

(b) What is DES? Discuss broad level steps in DES. **(6.5)**

Q3 What is malicious software? Explain Viruses, Trojan Horses, Worms, and Trapdoor. **(12.5)**

UNIT-II

Q4 (a) Discuss the fields supported by X.509 version 3 of Digital Certificate. How Digital Certificate work in a website? **(6)**

(b) Find private key/public key pair in RSA using p=11, q=3. **(6.5)**

Q5 What are the cryptographic Hash functions? Explain one round of MD5 or SHA-1 technique with the help of a diagram. **(12.5)**

UNIT-III

Q6 What is IPsec? Discuss the Transport and Tunnel mode with the help of diagram. Draw a neat diagram of Authentication Header (AH) and Encapsulating Security Payload (ESP) protocol header. **(12.5)**

Q7 What do you mean by Network Attacks? Explain Buffer Overflow, IP Spoofing, DOS Attack and SYN Flood attack. **(12.5)**

UNIT-IV

Q8 (a) What is SET? Explain key features of Secure Electronic Transaction (SET). **(6)**

(b) Define SSL and explain the concepts used in SSL. **(6.5)**

Q9 (a) What are the firewalls? Explain the different types of firewalls. **(6)**

(b) What is SNMP? Explain SNMP Managers, SNMP Agents and MIB. **(6.5)**

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