B.C.A. (Semester-VI) Examination, 2018

(New Syllabus)

NETWORK SECURITY & MANAGEMENT

[First Paper]

[BCA-S-307]

Time : Three Hours]　　　　　　　　　[Maximum Marks : 100

Note : Answer **five** questions in all. Question **no. 1** is **compulsory**. Besides this, attempt **one** question from each unit.

1.　Answer the following questions :　　　　[4×10=40]

(a)　Explain Network Security and its importance.

(b)　Explain Information security and its importance.

(c)　What is Honey Pot ?

(d)　Define Cryptosystem.

(e)　What is difference between secret key algorithm and hashing algorithm.

(f)　How authentication service provided by Pretty Good Privacy ?

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UNIT-IV

8.　What is importance of Network Security Management ? Explain SNMP architecture.　　　[15]

9.　Explain the following :　　　[15]

(a)　Intruders

(b)　Firewalls

(c)　Configuration management

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(g) Explain Integrity.

(h) What service must be confidentiality service rely upon to provide complete protection of information ?

(i) Should only malicious events be considered as part of threat ?

(j) What are the detection techniques for security ?

UNIT-I

2. (a) Define computer security and its importance. Justify that computer failure will have a critical impact on the organization. [7]

(b) Explain various prevention techniques for network security. [8]

3. Explain cryptographic algorithms : [15]

(a) Secret key algorithm.

(b) Public key algorithm.

(c) Hashing algorithm.

UNIT-II

4. What is the purpose of public key infrastructure ? Explain following components of PKI : [15]

(a) Certificate authorities

(b) Certificate holders

(c) Clients

(d) Repositories

5. How does PGP use the concept of trust ? Explain following services of PGP : [15]

(a) Authentication services

(b) Confidential services

(c) E-mail compatibility services

UNIT-III

6. (a) Write three practical applications of IP sec. [5]

(b) Explain Payload length and sequence number in AH format [5]

(c) Explain security parameter index and authentication data in ESP format. [5]

7. (a) Explain client-server architecture and its importance in web system. [5]

(b) Explain importance of HTML and HTTP in web system. [5]

(c) How integrity confidentiality and authentication help to secure the web system ? [5]