SARDAR PATEL UNIVERSITY
BCA EXAMINATION, 6ᵗʰ SEMESTER
Tuesday, 3ᵗʰ April, 2018
2:00 p.m. to 4:00 p.m.
US06EBCA01
[Information Security]

Maximum Marks: 70

Q-1   Multiple Choice Question.[Each Question carries one Mark]   **[10]**

1) _____ the process that is designed to detect, prevent or recover from a security.

   a) Security mechanism   b) Security Attack
   c) Service attack   d) Threat

2) _____ is one type of Security services.

   a) Data Integrity   b) Authentication
   c) Access Control   d) NonRepudiation

3) _____ control is the ability to limit and control the access to host system and applications via communications links.
   a) Authentication   b) Active & Passive
   c) Access   d) none of above

4) The exact substitutions and transformations performed by the algorithm depend on the _____key.
   a) plaintext   b) Encryption algorithm
   c) secret key   d) ciphertext

5) _____ cipher process the input elements continuously, producing output one element at a time.
   a) Block Cipher   b) Stream cipher
   c) Stream cipher   d) Block cipher

6) _____,is the original message or data that is fed into the algorithm as input.
   a) plaintext   b) Encryption algorithm
   c) secret key   d) ciphertext

7) _____ is a mechanism that bypasses a normal security check.
   a) Logic bomb   b) Trojan horse
   c) Bacteria   d) Trapdoor

8) What the virus does besides spreading is known as _____ .
   a) Triggering   b) Dormant
   c) Infection vector   d) Payload

9) _____ server is a server that creates a secure tunnel connection.
   a) DNS   b) VPN
   c) Tunnel   d) authentication

10) _____ Controls access to service according to which user is attempt.
   a) Service control   b) Direction control
   c) User control   d) Behavior control

①

Q-2   Give Answers for the following:(Any ten)   [20]

1   Define threat and attack.

2   What do you mean by Access control and data confidentiality?

3   List the different types of security attacks.

4   What is cryptography? Give name of its component?

5   Difference between substitution and transposition ciphers.

6   Define plain text and cipher text.

7   What do you mean by misfeasor?

8   Write the approach used by the antivirus.

9   Define: Virus and Worm.

10   Write limitations of firewall.

11   What do you mean by application level gateway?

12   Define Digital signature.

Q-3 A) Explain active attack in detail.   [5]

       B) List categories of security services and explain any one in detail.   [5]

OR

Q-3 A) Explain passive attack in detail.   [5]

       B) Write a short note on Network Security Model.   [5]

Q-4 A) Explain symmetric key in detail.   [5]

       B) Explain substitution cipher in detail.   [5]

OR

Q-4 A) Explain public – key cryptography in detail.   [5]

       B) Explain the applications for public – key cryptosystems.   [5]

Q-5 A) Explain all phases during virus lifetime.   [5]

       B) Write a brief note on Intruders.   [5]

OR

Q-5 A) Explain the term Virus kit, Macro viruses, E-mail Viruses.   [5]

       B) Classify the viruses in detail.   [5]

Q-6   What is firewall? Explain characteristics of firewall in detail with Goal, Scope, technique   [10]
          and limitations.

OR

Q-6   What is Digital Signature Process and services? Explain in detail.   [10]