

(20518)

Roll No.

BCA-VI Sem.

18026

B. C. A. Examination, May 2018

Computer Network Security

(BCA-601)

(New)

Time : Three Hours

[Maximum Marks : 75

Note : Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Attempt all the *five* questions. Each question carries 3 marks. Very short answer is required.

3×5=15

1. Specify the components of encryption algorithm.
2. What are the roles of public and private key ?

3. What are the advantages and disadvantages of secret key encryption ?
4. Difference between HTTP and HTTPS protocol.
5. Name four factors needed for a secure network.

Section-B

(Short Answer Questions)

Attempt any *two* questions out of the following three questions. Each question carries 7½ marks. Short answer is required. 7½×2=15

6. What are security protocols ? Discuss five benefits of IPSec as a security protocol.
7. Compare Substitution and Transposition cipher techniques.
8. Explain the operation of Secure Socket Layer in detail.

Section-C

(Detailed Answer Questions)

Attempt any *three* questions out of the following five questions. Each question carries 15 marks.

Answer is required in detail. $15 \times 3 = 45$

9. What do you mean by firewalls? Discuss the need of firewall in VPN along with its types.
10. Discuss the role of digital signatures in modern communication. Also discuss the differences between digital certificates and digital signatures in authentication.
11. What is Kerberos? Explain Kerberos authentication system.
12. Explain the type of encryption/decryption method. Differentiate symmetric and asymmetric encryption.

13. Compare and contrast (5*3):
- (a) Cryptography and Cryptanalysis
 - (b) SNMPV1 and SNMPV3
 - (c) Active and Passive Attack.