

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS**

**FIFTH SEMESTER – NOVEMBER 2019**

**16/17PCA5MC01 – NETWORK SECURITY**

Date: 29-10-2019

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**Part – A**

**Answer ALL Questions**

**(10 \* 2 = 20 Marks)**

1. Comment on phisher.
2. Distinguish between hacker and cracker.
3. Define Brute-force attack.
4. Compare conventional encryption and public key encryption.
5. What is digital signature?
6. What are the email security protocols?
7. List out the authentication functions.
8. Define Public key infrastructure.
9. What are the applications of IPsec?
10. Illustrate the ESP format.

**Part – B**

**Answer ALL Questions**

**(5 \* 8 = 40 Marks)**

11. a) Write short notes on the following
  - i) Reconnaissance
  - ii) Denial of Service

**(or)**

  - b) Illustrate the model of network security services.
12. a) Write short notes on Transposition techniques.

**(or)**

  - b) Explain Diffie-Hellman key exchange algorithm.
13. a) Write a note on Digital Signature Standard.

**(or)**

  - b) Describe the different Authentication requirements.
14. a) Explain the MIME specification in detail.

**(or)**

  - b) Describe Secure Socket Layer architecture.
15. a) List and explain the different firewall design principles.

**(or)**

  - b) Explain IPsec architecture with suitable diagram.

**Part – B**

**Answer ALL Questions**

**(2 \* 20 = 40 Marks)**

16. a. Discuss the X.800 Security services.

b. Explain the steps for Playfair and convert the plaintext HELLO into cipher text with the keyword

NETWORK

17. a. Discuss DES encryption algorithm in detail.

b. Explain Kerberos authentication services in detail.

18. a. Write about various ISAKMP formats in detail.

b. Explain VPN architecture with suitable diagram.

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