LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

THIRDSEMESTER – APRIL 2018

16PCS3MC04- CRYPTOGRAPHY AND CYBER SECURITY

Date: 04-05-2018   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

SECTION-A

ANSWER ALL THE QUESTIONS: **(10 X 2 = 20)**

1. Compare threat and attack.

2. Mention the transposition techniques?

3. What is block cipher?

4. List any two security services.

5. Define: Authenticator.

6. State three the purpose of digital signatures.

7. Compare masquerader and Misfeasor according to the access control.

8. What is Audit record?

9. Mention the difference between law and ethics.

10. Define computer forensic.

SECTION-B

ANSWER ALL THE QUESTIONS: **(5 X 8 =40)**

11. a) Explain about the security services in OSI Security architecture.
(OR)
 b) Explain about Symmetric Cipher Model with a neat diagram.

12. a) Explain in brief the operations involved in Blowfish.
        (OR)
    b) What are stream ciphers and explain RC4 in detail with a neat diagram.

13. a) What is Key Management and explain about Diffie Hellmann Key Exchange.
            (OR)
    b) Explain the steps involved in MD5 Message Digest Algorithm.

14. a) Explain the following: (a) Honey Pots   (b) password selection strategies.
            (OR)
    b) Illustrate the different types of firewalls with neat diagram.

15. a)Write the international issues in computer crime.
            (OR)
    b) Explain the categories of intellectual property law.

SECTION-C

ANSWER ANY TWO QUESTIONS: **(2 X 20 = 40)**

16. (a) Discuss in detail about the encryption and decryption techniques involved in
    Simplified DES.   (10)

    (b) Explain in detail about RSA algorithm.   (10)

17. (a) Explain the types of authentication functions used to produce authenticator.(10)

    (b) Draw and discuss the architecture of distributed intrusion detection system.   (10)

18. (a) Discuss different types of computer crimes with an example.   (10)

    (b) Elaborate in detail the different types of viruses.   (10)

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