LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

SECOND SEMESTER – NOVEMBER 2016

CS 2823 - CRYPTOGRAPHY & NETWORK SECURITY

Date: 05-11-2016   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

SECTION-A

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

1. Differentiate a threat and an attack.
2. Define cryptology.
3. What is stream cipher? Give an example.
4. Enumerate any four characteristics of Advanced Symmetric Block Ciphers.
5. Define Authenticator.
6. State the purpose of digital signature.
7. What is PGP?
8. What is SET?
9. Define Logic Bomb.
10. Mention any two virus counter measures.

SECTION-B

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

11. a) Explain Network Security using a model.
        (OR)
    b) Describe the transposition techniques with examples

12. a) Explain the concept of Triple DES.
        (OR)
    b) Explain RSA Algorithm with an example.

13. a) What is Key Management and explain Diffie Hellmann Key Exchange.
        (OR)
    b) Explain Message Authentication Codes.

14. a) Explain the features and services of S/MIME.
        (OR)
    b) Discuss about KERBEROS.

15. a) Discuss about Trusted Systems.
        (OR)
    b) Explain the role of Firewall in Network security.

SECTION-C

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

16. (a) Explain the services of OSI Security Architecture in detail.   **(10)**
    (b) Explain RC5 with its encryption and decryption procedure.   **(10)**

17. (a) Explain MD5 algorithm.   **(10)**
    (b) Discuss about the SSL Transport Layer Security.   **(10)**

18. (a) Discuss the role played by Intrusion Detection system with its types. **(10)**
    (b) Discuss the different types of viruses.   **(10)**

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