M.Tech. 3rd Semester (CSE) CBCS Scheme
Examination, December–2017
NETWORK SECURITY
Paper–16CSE23C2

Time allowed : 3 hours] *[Maximum marks : 100*

Note : *Attempt **five** questions selecting **one** question from each unit and **question no. 1 is compulsory**.*

1. Write a short note on the following :

(a) What is steganography ? 5

(b) Explain the avalanche effect. 5

(c) Discuss electronic money. 5

(d) What is Honeypot ? Briefly explain. 5

Unit–I

2. What is OSI Security architecture ? How this architecture focuses on security attacks, security mechanism and security services ? 20

3. (a) Explain the network security model in detail. 10

(b) What is symmetric cipher model ? Explain with diagram. 10

Unit–II

4. (a) What is Public key cryptography ? Explain the process of Data Encryption standard with their algorithm. 10

   (b) What is the difference between diffusion and confusion ? 10

5. (a) What is the difference between Elliptic curve arithmetic and RSA ? How Elliptic curve arithmetic is better than RSA ? 10

   (b) What is Diffie-Hellman Key Exchange ? Explain with the algorithm. 10

Unit–III

6. (a) Describe the concept of Internet protocol security. Explain various applications of IPSec. 12

   (b) How Transport layer security is achieved ? 8

7. (a) How Secure Socket Layer play an important role in Internet security ? Explain briefly. 10

   (b) What is the difference between Socket secure layer (SSL) and secure electronic transactions (SET) ? 10

Unit–IV

8. (a) What is intrusion detection system ? Explain various approaches to intrusion detection ? 10

   (b) How firewall plays important role in system security ? Explain various types of firewalls. 10

9. Write a short note on : 20

   (a) Practical implementation of cryptography and security.

   (b) Discuss various firewall design principles.