Code: CS7T3

IV B.Tech - I Semester – Regular/Supplementary Examinations
October - 2019

INFORMATION SECURITY
(COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours   Max. Marks: 70
PART – A

Answer *all* the questions.   All questions carry equal marks

                                            11 x 2 = 22 M

1. a) Define Security Service.

   b) What is Message Authentication?

   c) What is the difference between block and stream cipher?

   d) Explain the concept of Public key Cryptography.

   e) What is Digital certificate?

   f) What are the Authentication requirements of Kerberos?

   g) Define Tunnel mode Transmission.

   h) What is the difference between AH and ESP?

   i) What is SET?

   j) Define Intruder.

   k) Explain Trusted System concept.

PART – B

Answer any **THREE** questions. All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) Explain about Passive Attacks.   8 M

   b) Explain about various security mechanisms.   8 M

3. a) Explain about various block cipher modes of operations.

                                                                                                 8 M

   b) Explain DES single round details with a neat diagram.

                                                                                                 8 M

4. a) Write RSA Algorithm with a suitable example.   8 M

   b) Explain the Functionalities of S/MIME.   8 M

5. a) Draw and Explain IP Security Architecture .   8 M

   b) Explain about various requirements of Web security.   8 M

6. a) Explain various Intrusion Detection Techniques.   8 M

   b) Define firewall and explain the Types of firewalls.   8 M