Second Semester M.Tech. Degree Examination, June-July 2009
Information & Network Security

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions.*

1   a.   Discuss the various critical characteristics of information.   (10 Marks)
      b.   Explain the development life cycle of security systems.   (10 Marks)

2   a.   With the help of diagram, explain the contingency planning time line.   (10 Marks)
      b.   Categorize the firewalls based on processing mode. Explain them in brief.   (10 Marks)

3   a.   What are the different managements defined by ISO Network management? Explain them in brief.   (10 Marks)
      b.   With the help of diagram, explain the maintenance model   (10 Marks)

4   a.   With a network security model, explain about attacks, mechanisms and services.   (10 Marks)
      b.   Explain how encryption and decryption are done using Feistel structure, with the important factors considered for providing security.   (10 Marks)

5   a.   Explain how DES can be used to operate in different modes.   (10 Marks)
      b.   Explain how SHAI can be used to generate message digest.   (10 Marks)

6   a.   Discuss how public key cryptosystems differ from conventional cryptosystems. Explain the RSA algorithm.   (10 Marks)
      b.   With the format explain the X.509 directory authentication services.   (10 Marks)

7   a.   Explain the operations of PGP for various services (any four).   (10 Marks)
      b.   Explain SSL architecture.   (10 Marks)

8   Write short notes on :
      a.   Attacks in cipher text
      b.   SET
      c.   Caesar cipher
      d.   Authentication header   (20 Marks)

* * * * *