Bachelor of Science (Information Technology) (I.T) (Semester–V) Examination

NETWORK SECURITY

Paper–3

Time : Three Hours] [Maximum Marks : 50

N.B. :— (1) All questions are compulsory and carry equal marks.
(2) Draw neat and labelled diagram wherever necessary.

EITHER

1. (a) Define security attack. Explain passive attacks in detail. 5
   (b) Explain :
   (1) Data Integrity
   (2) Access Control 5

OR

   (c) Explain the model for the Inter-Network security. 5
   (d) Explain RFC mechanism related to internet standards. 5

EITHER

2. (a) Draw and explain the model for symmetric encryption. 5
   (b) Explain Bell- Lapadula model with its important features. 5

OR

   (c) Explain DES algorithm. 5
   (d) Explain IDEA algorithm 5

EITHER

3. (a) What do you mean by the cryptanalysis ? Explain. 5
   (b) Explain :
   (1) Digital Signature
   (2) Non-repudiation. 5

OR

   (c) Explain the concept of key management. 5
   (d) Write a note on network security objectives. 5

EITHER

4. (a) Explain the cryptographic authentication protocols. 5
   (b) Explain :
   (1) Hardware Firewall
   (2) Software Firewall 5

OR

   (c) Explain the key features of SET. 5
   (d) Explain intrusion detection mechanism. 5

5. Attempt **ALL** :
   (a) Write a note on Authentication. 2½
   (b) Define secret and public key. 2½
   (c) Explain the Hash Function requirements. 2½
   (d) Write a note on PGP (Pretty Good Privacy). 2½