

Bachelor of Science (Information Technology) (B.Sc. I.T.) Semester-V (CBS) Examination

NETWORK SECURITY

Paper—3

Time : Three Hours]

[Maximum Marks : 50

Note :— (1) All questions are compulsory and carry equal marks.

(2) Draw neat and labelled diagram wherever necessary.

EITHER

1. (a) Explain :
 - (1) Passive attacks
 - (2) Active attacks. 5
- (b) Explain the concepts of the :
 - (1) Access matrix
 - (2) Access control. 5

OR

- (c) Explain HRV model for Network Security. 5
- (d) Explain the kinds of threats over the Network. 5

EITHER

2. (a) What is stream cipher ? Explain RC4 stream cipher algorithm. 5
- (b) Explain cryptography along with the model for the symmetric encryption. 5

OR

- (c) Explain the concept of Chinese wall model. 5
- (d) Explain RSA algorithm. 5

EITHER

3. (a) Explain the concept of SHA-1 secure Hash function. 5
- (b) Explain transport layer security and protocols. 5

OR

- (c) Explain the concept of Digital Signatures. 5
- (d) Write a note on internet security protocols. 5

EITHER

4. (a) Explain packet filtering in firewall. 5
- (b) Write notes on :
 - (1) Smart card
 - (2) Kerberos. 5

OR

- (c) What are intruders ? Explain the intrusion techniques. 5
- (d) What is MIME ? Explain header fields defined in the MIME. 5

5. Attempt all :
 - (a) Write a note on the data confidentiality. 2½
 - (b) Explain Block Ciphers. 2½
 - (c) Explain Digital Certificates. 2½
 - (d) Explain application firewall. 2½