Bachelor of Science (Information Technology) (I.T.) Semester-V (CBS) 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 diagrams wherever necessary.

EITHER

1. (a) Explain threats and risks in networking.   5

(b) Explain passive and active attacks in a network.   5

OR

(c) Explain the following :

(i) Confidentiality

(ii) Non-repudiation.   5

(d) Explain the RFCs Access control mechanism in networking.   5

EITHER

2. (a) Explain Chinese wall model in detail.   5

(b) Explain the secret key and public key cryptosystems.   5

OR

(c) Explain the working mechanism of DES.   5

(d) Explain :

(i) Symmetric ciphers

(ii) Block ciphers.   5

EITHER

3. (a) Explain non-repudiation.   5

(b) What is digital signature ? Explain.   5

OR

(c) Explain the objectives of network security.   5

(d) Explain transport layer security.   5

EITHER

4. (a) What are the applications of network security ?   5

(b) Explain the following authentication mechanisms :

(i) Passwords

(ii) Biometrics.   5

OR

(c) What do you mean by intruders ? Explain intrusion detection.   5

(d) Explain :

(i) Hardware firewall

(ii) Application firewall.   5

5. Attempt all :

(a) Explain access matrix.   2½

(b) What is cryptography ?   2½

(c) Explain key management.   2½

(d) Explain Kerberos.   2½