

SARDAR PATEL UNIVERSITY
Programme: BCA
Semester: IV
Syllabus with effect from: June 2019

Paper Code : US04SBCA25	Total Credit: 2
Title of Paper: Information Security	

Lectures per week : 2 Exam Duration: 2 hrs
All units carry equal weightage.

Unit	Description in Detail	Weightage (%)
I	Introduction Attacks, services and mechanism Security attacks Security services A model for network security	25%
II	Cryptography Introduction Conventional encryption principles Basic terms : plaintext, cipher text, cryptography, cryptanalysis Substitution ciphers vs. transposition ciphers Types of attack on encrypted messages Introduction to public key cryptography Applications for public-key cryptosystems	25%
III	System Security Intruders Viruses and related threats : trap doors, logic bombs, Trojan horses, viruses, worms, bacteria The nature of viruses Types of viruses Antivirus approaches : detection, identification and removal	25%
IV	Network Security Digital signatures Firewalls : introduction, design principles, characteristics, types, configuration	25%

Basic Text & Reference Books:-

1. William Stallings: Network Security Essentials (Applications and Standards), Pearson Education India, 2001.
2. Behrouz Forouzan, Introduction to Data Communications and Networking, Tata McGraw-Hill Publishing Co. Ltd., New Delhi, 1998.