SARDAR PATEL UNIVERSITY
Programme: B.A.
Syllabus with effect from: June-2017
Choice Based Credit system
First Year B.A.
Semester - II

Interdisciplinary Subject Computer Method Paper-IV
Title of Paper: Network and Cyber Security

Paper Code: UA02SCAP22   **Total Credit:** 3

Unit	Description in Detail	Weightage (%)
I	**Network:** Introduction, Networking Concepts, Advantages and Usages of Networking, Characteristics of Networking, Networking components–Cables, NIC, Repeater, Bridge, Hub, Switch Router, Access point, Types of Network - Wired and Wireless. LAN, MAN, WAN, Wi-Fi, Network Topologies and their advantages / disadvantages - Bus, Ring, Star, Mesh, Tree, Concepts of Servers, Client [Work station].	**25%**
II	**Inernet:** History of Internet, Hardware and Software requirements for using Internet: Dial-up connection, Broadband connection, DSL,ADSL, Internet Via Cable, Hotspot, Wireless Internet Access, Internet through Mobile Phone Network, Internet through Satellite, Internet, Intranet, Extranet, Using the Internet: WWW, WWWn, URL, ISP, DNS, IP address, E–mail, , Function of Internet Service Provider, Usages of internet/network based protocols : HTTP, HTTPS, TCP/IP, IP, DHCP, SMTP, POP3,IMAP, ICMP, FTP, TELNET Important of Web Browser, Various Browser, Website, Portal, Blog,	**25%**
III	**Cyber Intrusions and Security:** Cyberbullies, Online Reputation Attacks, Reputation Management, Protecting from Cyberbullies, Phishing, Recognizing Phishing trip, Protection from Phisher's hook up, Online Shopping Basics, Hijackers, Ensuring Safe Shopping, Security Tokens, Cookies, Measures for staying Safe over Social network, Meeting People Online, Liars, Creeps, Cyberstalkers, Protecting yourself from creeps. Safe measure for eBanking, eShopping and ePayment.	**25%**
IV	**Virus: Virus:** Definition of Virus, Type of Virus, Functions of virus **Malicious software:** Spyware, Malware, Scareware, Ransomware, Worms, Trojan horses, Fishing, SPAM, Spoofing, Sniffing, Hijack. **Anti-Virus**: Various Antiviruses, Its important, Measures for preventing virus and other malicious software.	**25%**

Practical: Cyber Security-Threats & Preventive Measure. Virus, AntiVirus (Theory 50% + Practical 50%)

Reference Books
- Computer fundamentals By Anita Goel Pearson Publication New Delhi.
- Sinha, P.K.(2004), "Computer Fundamentals", 4th Ed.,BPB Publications
- Rajaraman,V, "Fundamentals of Computers", PHI
- Network Security 2e, Ankit Fadia
- India's Internet Security, Rajkumar Samiyappan Ponnusamy,
- Anatomy Of Computer Virus English (Pb) - Khan S, Diamond Pocket Books-New Delhi
- Disaster Recovery & Business Continuity: A Quick Guide for Small Organizations and Busy Executives-Thejendra BS, BPB