Information Security Practical

B. Sc. (Information Technology)		Semester – VI	
Course Name: Information Security Practical		Course Code: USIT6P2	
Periods per week (1 Period is 50 minutes)		3	
Credits		2	
		Hours	**Marks**
Evaluation System	**Practical Examination**	2½	50
	Internal	--	--

List of Practical	
1.	**Configure Routers:**
a.	OSPF MD5 authentication.
b.	NTP.
c.	to log messages to the syslog server.
2.	Configure AAA Authentication
a.	Configure a local user account on Router and configure authenticate on the console and vty lines using local AAA
b.	Verify local AAA authentication from the Router console and the PC-A client
3.	**Configuring Extended ACLs**
a.	Configure, Apply and Verify an Extended Numbered ACL
4.	**Configure IP ACLs to Mitigate Attacks and IPV6 ACLs**
a.	Verify connectivity among devices before firewall configuration.
b.	Use ACLs to ensure remote access to the routers is available only from management station PC-C.
c.	Configure ACLs on to mitigate attacks.
d**.**	Configuring IPv6 ACLs
5.	**Configuring a Zone-Based Policy Firewall**
6.	**Configure IOS Intrusion Prevention System (IPS) Using the CLI**
a.	Enable IOS IPS.
b.	Modify an IPS signature.
7.	**Layer 2 Security**
a.	Assign the Central switch as the root bridge.
b.	Secure spanning-tree parameters to prevent STP manipulation attacks.
c.	Enable port security to prevent CAM table overflow attacks.
8.	**Layer 2 VLAN Security**

9.	Configure and Verify a Site-to-Site IPsec VPN Using CLI
10.	**Configuring ASA Basic Settings and Firewall Using CLI**
a.	Configure basic ASA settings and interface security levels using CLI
b.	Configure routing, address translation, and inspection policy using CLI
c.	Configure DHCP, AAA, and SSH
d.	Configure a DMZ, Static NAT, and ACLs

Books and References:

Sr. No.	Title	Author/s	Publisher	Edition	Year
1	Essential Cybersecurity Science	Josiah Dykstra	O'Reilly	Fifth	2017
2	Principles of Computer Security: CompTIA Security+ and Beyond	Wm.Arthur Conklin, Greg White	McGraw Hill	Second	2010
3	The Complete Reference: Information Security	Mark Rhodes-Ousley	McGraw-Hill	2nd	2013