

Govt. of Karnataka, Department of Technical Education
Diploma in Computer Science & Engineering

Sixth Semester

Subject: Network Security Lab

Contact Hrs / week: 6

Total hrs: 96

Note:

1) For all experiments the student must and should install software's. After the demonstrate the same be uninstalled. Each batch has to learn to install and use the tools. You ca use any other equivalent softwares other then the mentioned one.

2)The lab should have structured network with 2 mbps internet line.

Using Virutal Box, Two OS can be installed on one machine, where in one OS acts as a client and other acts a server.

SN	TOPIC
1	Learn to install Wine/Virtual Box/ or any other equivalent s/w on the host OS
2	Perform an experiment to grab a banner with telnet and perform the task using Netcat
3	Perform an experiment for Port Scanning with nmap, superscan or any other equivalent software
4	Using nmap 1)Find Open ports on a system 2) Find machines which are active 3)Find the version of remote OS on other systems 4)Find the version of s/w installed on other system (using nmap or any othe software)
5	Perform an experiment on Active and Passive finger printing using XProbe2 and nmap
6	Performa an experiment to demonstrate how to sniff for router traffic by using the tool Cain and Abel / wireshark / tcpdump

7	Performa an experiment how to use DumpSec.
8	Perform an wireless audit of an access point / router and decrypt WEP and WPA (softwares netstumbler or aircsniff)
9	Perform an experiment to sniff traffic using ARP poisoning
10	Install IPCop on a linux system and learn all the function available on the software.
11	Install JCrypt tool (or any other equivalent) and demonstrate Asymmetric, Symmetric crypto algorithm, Hash and Digital/PKI signatures studied in theory Network Security and Management
12	Demonstrate Intrusion Detection System (IDS) using any tool eg. Snort or any other s/w
13	Install RootKits and study variety of opt
14	Generate minimum 10 passwords of length 12 characters using open ssl command
15	Setup a honey pot and monitor the honey pot on network

Text:

1. Build Your Own Security Lab: A field guide for network Testing, Michael Gregg, Wiley India edition, ISBN: 9788126516919

Scheme of Valuation

1	Record	05
2	Installation of tool (Any two)	30
3	Demonstration	45
4	Viva Voce	20
	Total	100

Lab requirements

SN	Item	Quantity
1	Computers with wireless network card	20
2	Internet Connection : Minimum 2 Mbps	Shared for 20
3	Switch – 32 port	01
4	Wireless router	01

Open Source Software may be encouraged