**Practical No 6**

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**Topic: Writing a Python code for full host TCP Port Scanner**

## import nmap #Importing the Library

## nm = nmap.PortScanner() #Initializing the Library

## ip = raw\_input(“Enter the range of IP(eg. 192.168.43.8-160): ” )

## port = raw\_input(“Enter the range of port that you want to scan (eg. 150-530): ” )

## scanned = nm.scan(ip,port) #Scanning through hosts and Ports range

## #Looping through all the hosts(host is IP address)

## for host in nm.all\_hosts():

## print('Host:'+host + '('+nm[host].hostname()+')') #printing IP and Host Name

## print('Status:'+nm[host].state()) #Printing of Host is Up or Down

## print('Services and Ports:')

## #Looping through the protocols of which ports are open (TCP|UDP...)

## for proto in nm[host].all\_protocols():

## #Looping through ports of all the open services in the protocol

## for port in nm[host][proto].keys():

## #printing Protocol, Port and Product Name running on the port.

## print('%s\t||\t%s\t||\t%s'%(proto,port,nm[host][proto][port]['product']))

## print('')

