

**Operating Systems
Laboratory Assignment Number 1
Assigned August 6, 2003
Due August 8, 2003
100 Points**

Name: _____

Instructions:

Answer the following questions in the space provided. For assistance you can use the Linux Documentation Project Website <http://www.tldp.org>. You may discuss with each other during the lab. However, the submitted assignment must be completely your own work.

Question 1:

Using the Linux help system of manual pages invoked using the man command find out the function of the following Linux commands:

<i>Command</i>	<i>Function</i>	<i>Equivalent Windows NT/XP Command</i>	<i>Location of Executable File</i>
ps			
kill			
echo			
free			

<i>Command</i>	<i>Function</i>	<i>Equivalent Windows NT/XP Command</i>	<i>Location of Executable File</i>
cat			
chmod			
touch			
ls			
bash			
cp			

Question 2:

What types of file permissions are supported in Linux? How are they specified?

Questions 3:

What can file owner and everyone do with a file that has permissions set to:

544:

700:

666:

711:

555:

Question 4:

What is the difference between file permissions under UNIX/Linux and access control lists under Windows NT/2000/XP?

Question 5:

How do you make a file into a hidden file under Linux? How do you do the same under Windows NT/2000/XP?

Question 6:

Where is the Linux Kernel file located? How do you check the version of the Linux Kernel?

Question 7:

What is a bootloader? Name at least two bootloaders that can be used with Linux?

Question 8:

Read the manual page for the init command and then list the run levels of operation of the system along with the description of each run level. Why should there be different run levels? Is there something comparable in Windows NT/2000/XP?

Question 9:

Read the file `/etc/passwd` and then comment on its structure. Show the generic structure.

Question 10:

What algorithm(s) is(are) used by Linux to store a user's password securely? List them again in the order of security strength.