

PRINT Name: \_\_\_\_\_ LAB Section:

Test Version: \_\_\_\_ One-Answer Multiple Choice 45 Questions – 15 of 15%

- ☞ Read **all** the words of these instructions and **both** sides (back and front) of all pages.
- ☞ Use your full, unabbreviated name on the mark-sense form. Do not abbreviate your name.
- ☞ Put the three-digit **Test Version** above into **NO. OF QUESTIONS** and **NO. OF STUDENTS**
- ☞ Fill in the bubbles with pencil only, no pen. Enter your NAME, Test Version, and answers.
- ☞ Manage your time. Answer questions you know, first. One Answer per question.
- ☞ The answer to the last question about reading/doing all these test instructions is: **Sim**

1. [12/89] What is the output on your screen of this command line:  

```
mkdir a ; touch b1 a/b1 a/b2 ; find a -name b?
```

a. a/b1 a/b2                      b. a/b1  
c. b1 b2                              d. b1 a/b1 a/b2  
e. no output
2. [27/90] In an empty directory, how many words are in file **foo** after this command line: 

```
echo b .d >c >.out ; cp c d ; ls >foo
```

  

a. 3              b. 2              c. 1              d. 0              e. 4
3. [41/89] Given this long listing:  

```
drwxr-xr-x 296 me me 448 Dec 4 9:12 dir
```

How many subdirectories lie immediately under **dir**?  

a. 446  
b. 448  
c. there is not enough information shown to answer the question  
d. 294  
e. 296
4. [42/90] In an empty directory, how many words are in file **c** after this:  

```
echo It's redirected >a isn't it. >b ; ls >c
```

  

a. 3              b. 1              c. 4              d. 0              e. 2
5. [43/90] File **a** contains 2 lines. File **b** contains 3 lines. How many lines are output on your screen by this command line: 

```
cat b | echo a
```

  

a. 3 followed by 1              b. 1              c. 3  
d. 3 followed by 2              e. 2

6. [45/90] In `/home/abcd0001` using `ls -l` shows a symbolic link **foo** `-> /bin/ls` then dereference the absolute path of **foo** with no symbolic links:  

a. `/home/abcd0001/bin/ls/foo`  
b. `/home/abcd0001/foo/bin/ls`  
c. `/foo/bin/ls`  
d. `/bin/ls`  
e. `/home/abcd0001/bin/ls`
7. [48/90] Create a symbolic link under `/tmp` named **bar** that has target **foo**:  

a. `ln -s /tmp/bar '/tmp/foo'`  
b. `ln -s /tmp/bar 'foo'`  
c. `ln -s 'foo' '/tmp/bar'`  
d. `ln -s bar/foo /tmp`  
e. `ln -s '/tmp/foo' /tmp/bar`
8. [50/90] Dereference the following symlink **bar** into its equivalent absolute path: `ln -s ../../a../foo /tmp/a/b/bar`  

a. `/tmp/a/foo`                      b. `/tmp/a/b/bar`  
c. `/tmp/b/bar`                      d. `/tmp/b/foo`  
e. `/tmp/foo`
9. [50/90] If my current directory is `/bin`, which of these pathnames is equivalent to the file name `/bin/bash`?  

a. `./bin/bash`                      b. `../bash`  
c. `../bin/bash/.`                      d. `bash`  
e. `bin/bash`
10. [51/90] If a shell GLOB pattern fails to match anything, the shell:  

a. gives an error message and does not execute  
b. removes the pattern and passes nothing  
c. passes the pattern unchanged to the command  
d. returns the closest match to the pattern  
e. gives a warning message but continues



23. [61/90] What is the link count of directory **x** after this set of successful commands? `mkdir x ; mkdir x/a x/a/b x/a/c x/a/d`  
 a. 5            b. 4            c. 2            d. 3            e. 6
24. [62/88] In `/usr/bin` using `ls -l` shows a symbolic link `foo -> ../d/bar` then dereference the absolute path of `foo` with no symbolic links:  
 a. `/usr/foo/./d/bar`            b. `/usr/d/bar`  
 c. `/usr/bin/d/bar`            d. `/usr/bin/foo/./d/bar`  
 e. `/usr/bin/d/bar/foo`
25. [62/90] What is the link count of directory **x** after this set of successful commands?  
`mkdir x ; cd x ; touch a ; ln a b ; mkdir c d`  
 a. 4            b. 7            c. 3            d. 5            e. 6
26. [65/90] File **a** occupies one disk block. How many disk blocks are in use after this sequence of commands:  
`cp a b ; ln b c ; cp c d ; cp a c ; rm a b`  
 a. 5            b. 1            c. 4            d. 2            e. 3
27. [65/90] Which pathname almost always leads to the same file named: `/bin/ls`  
 a. `./bin/ls`            b. `/bin/./ls`  
 c. `/bin/./bin/./ls`            d. `./bin/./ls`  
 e. `./bin/./ls/`
28. [65/90] What is true about this output from `ls -il foo bar`?  
`15 -rwxrwxrwx 2 bin bin 3 Jul 31 12:33 foo`  
`15 -r--r--r-- 2 bin bin 3 Jul 31 12:33 bar`  
 a. `foo` and `bar` are names for the same file  
 b. `foo` and `bar` each have three names (six names total)  
 c. `foo` and `bar` are names for different files  
 d. this output is not possible  
 e. `foo` and `bar` are two of three names for the same file
29. [67/90] File **a** contains 2 lines. File **b** contains 3 lines. How many lines are in file **c** after this command line:  
`cat a a >c ; sort b >>a ; cat c b >c a`  
 a. 0            b. 7            c. 12            d. 10            e. 8

30. [67/90] File **a** contains 2 lines. File **b** contains 3 lines. How many lines are output on your screen by this command line: `cat a | cat b`  
 a. 3            b. 5            c. 3 followed by 2  
 d. 2            e. 2 followed by 3
31. [67/90] If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:  
`111 -rw-r--r-- 3 me me 1 Jan 1 1:00 a`  
`111 -rw-r--r-- 3 me me 1 Jan 1 1:00 b`  
`222 -rw-r--r-- 3 me me 1 Jan 1 1:00 c`  
`222 -rw-r--r-- 3 me me 1 Jan 1 1:00 d`  
 a. 1            b. 0            c. 2            d. 3            e. 4
32. [69/89] If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:  
`111 -rw-r--r-- 1 me me 1 Jan 1 1:00 a`  
`222 -rw-r--r-- 1 me me 1 Jan 1 1:00 b`  
`333 -rw-r--r-- 1 me me 1 Jan 1 1:00 c`  
`444 -rw-r--r-- 2 me me 1 Jan 1 1:00 d`  
 a. 2            b. 1            c. 0            d. 4            e. 3
33. [69/90] If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:  
`111 -rw-r--r-- 1 me me 1 Jan 1 1:00 a`  
`222 -rw-r--r-- 1 me me 1 Jan 1 1:00 b`  
`444 -rw-r--r-- 2 me me 1 Jan 1 1:00 c`  
`444 -rw-r--r-- 2 me me 1 Jan 1 1:00 d`  
 a. 3            b. 1            c. 4            d. 0            e. 2
34. [69/90] What is in file **c** after this command line:  
`echo hi >a ; ln a b ; echo me >b ; ln a c ; rm a b`  
 a. `hi` followed by `me`            b. `me`  
 c. nothing (empty file)            d. no such file (nonexistent)  
 e. `hi`
35. [75/90] File **a** occupies one disk block. How many disk blocks are in use after this sequence of commands:  
`cp a b ; ln b c ; ln c d ; ln a e ; rm a b c`  
 a. 1            b. 3            c. 4            d. 5            e. 2

36. [75/90] How many files are touched or created?

```
touch " 1 '2 3' 4 " 5 6 ' 7 "8 '
```

- a. 2            b. 5            c. 4            d. 3            e. 6

37. [75/89] If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

```
111 -rw-r--r-- 1 me me 1 Jan 1 1:00 a
```

```
222 -rw-r--r-- 3 me me 1 Jan 1 1:00 b
```

```
222 -rw-r--r-- 3 me me 1 Jan 1 1:00 c
```

```
222 -rw-r--r-- 3 me me 1 Jan 1 1:00 d
```

- a. 4            b. 2            c. 3            d. 0            e. 1

38. [76/90] What is true about this output from `ls -il foo bar`

```
111 -rwxrwxrwx 2 bin bin 3 Jul 31 12:33 foo
```

```
222 -rwxrwxrwx 2 bin bin 3 Jul 31 12:33 bar
```

- a. `foo` and `bar` each have three names (six names total)  
 b. `foo` and `bar` are names for the same file  
 c. this output is not possible  
 d. `foo` and `bar` are names for different files  
 e. `foo` and `bar` are two of three names for the same file

39. [77/90] File `a` occupies one disk block. How many disk blocks are in use after this sequence of commands:

```
ln a b ; ln b c ; cp c d ; ln c e ; rm a b c d
```

- a. 5            b. 2            c. 1            d. 4            e. 3

40. [77/90] What is true about this output from `ls -il foo bar`

```
23 -rwxrwxrwx 2 bin bin 3 Jul 31 12:33 foo
```

```
23 -rwxrwxrwx 2 bin bin 3 Jul 31 12:33 bar
```

- a. `foo` and `bar` are names for different files  
 b. `foo` and `bar` are names for the same file  
 c. this output is not possible  
 d. `foo` and `bar` each have three names (six names total)  
 e. `foo` and `bar` are two of three names for the same file

41. [78/90] How do you execute the program `bar` in the current directory?

- a. `./bar`            b. `$HOME/bar`            c. `/bar`  
 d. `bar/.`            e. `bar/`

42. [79/90] If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

```
111 -rw-r--r-- 1 me me 1 Jan 1 1:00 a
```

```
222 -rw-r--r-- 2 me me 1 Jan 1 1:00 b
```

```
333 -rw-r--r-- 2 me me 1 Jan 1 1:00 c
```

```
444 -rw-r--r-- 1 me me 1 Jan 1 1:00 d
```

- a. 4            b. 1            c. 3            d. 2            e. 0

43. [79/89] Rewrite as a simplified absolute path (assume all directories exist):

```
/lib/./bin/./usr/./usr/./usr/./etc/./lib/./usr/./bin/./bar
```

- a. `/bar`            b. `/lib/bin/bar`  
 c. `/etc/bar`            d. `/lib/usr/bar`  
 e. `/lib/bar`

44. [82/90] A "dangling symlink" is a symlink to:

- a. a parent directory            b. the current directory  
 c. a special device file            d. a non-existent target  
 e. a directory

45. [85/90] **Did you read all the words of the test instructions on page one?**

- a. **Tak** (Yes - Polish)            b. **Jes** (Yes - Esperanto)  
 c. **Igen** (Yes - Hungarian)            d. **Sim** (Yes - Portuguese)  
 e. **Taip** (Yes - Lithuanian)