PRINT Name: _____ **LAB Section:** | | | |

Test Version: ____ **One-Answer Multiple Choice** **45 Questions − 10 of 10%**

- ☞ 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`**

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1. *[16/89]* If file **`foo`** contains 2 lines, and file **`bar`** contains 3 lines, then how many lines are output on your screen by this command line:
   ```
   head foo | echo bar
   ```
   a. **`2`** followed by **`1`** *b.* **`2`** *c.* **`3`**
   d. **`2`** followed by **`3`** *e.* **`1`**

2. *[20/89]* In an empty directory, how many words are in file **`foo`** after this:
   ```
   echo b >c .d ; cp c d ; ls >foo
   ```
   a. **`2`** *b.* **`4`** *c.* **`1`** *d.* **`0`** *e.* **`3`**

3. *[25/90]* In an empty directory, what is in file **`bar`** after this command line:
   ```
   echo bar >bar ; ls nosuchfile | wc -l >bar
   ```
   a. **`1`** *b.* **`bar`**
   c. **`nosuchfile`** *d.* **`0`**
   e. nothing (empty file)

4. *[26/90]* In an empty directory, how many words are in file **`foo`** after this:
   ```
   touch b >c .d ; mv c d ; ls >foo
   ```
   a. **`4`** *b.* **`3`** *c.* **`0`** *d.* **`1`** *e.* **`2`**

5. *[29/86]* Which command line below outputs only lines 5-10 of the file named **`foo`**?
   a. **`tail -15 foo | head -5`**
   b. **`head -15 foo | tail -5`**
   c. **`head -10 foo | tail -6`**
   d. **`tail -10 foo | head -6`**
   e. **`head -5 foo | tail -10`**

6. *[30/90]* If my current directory is **`/etc`**, which of these pathnames is equivalent to the file name **`/bin/ls`**?
   a. **`../etc/./bin/ls`** *b.* **`./bin/ls`**
   c. **`etc/../bin/ls`** *d.* **`../bin/./ls`**
   e. **`../bin/ls/.`**

7. *[32/89]* What is the output of this command line in an empty directory:
   ```
   date >.a ; touch b. ; echo .*
   ```
   a. **`b.`**
   b. **`.a`**
   c. **`.*`**
   d. **`. .. .a`**
   e. an error message from **`echo`** saying **`.*`** does not exist

8. *[34/89]* How many arguments and options are there to the command:
   ```
   ls -lid /p
   ```
   a. Two arguments, one of which is a single option name and the other is a pathname.
   b. Two arguments: A file name starting with a dash and a **`/p`** switch option argument.
   c. Three arguments, one of which contains options and one is a pathname.
   d. Two command line arguments, one of which contains three options.
   e. Two arguments, neither of which is an option.

9. *[34/89]* If I am in directory **`/usr/tmp`** and **`mt`** is an empty sub-directory, which command copies the password file into **`mt`** under the name **`foo`**?
   a. **`cp ../../usr/../etc/passwd ../../tmp/mt/foo`**
   b. **`cp mt/../../../etc/passwd ../mt/foo`**
   c. **`cp mt/../../tmp/../../etc/passwd ../tmp/mt/../foo`**
   d. **`cp ../../etc/../etc/./passwd mt/foo`**
   e. **`cp ../../etc/passwd /mt/foo`**

10. *[35/88]* What is the correct syntax to redirect both standard output and standard error into the same output file?
    a. **`cmd 1>out 2>out`** *b.* **`cmd 2>&1 >out`**
    c. **`cmd 1>out 2>1`** *d.* **`cmd >out 2>&1`**
    e. **`cmd 2>1 >out`**

11. *[37/89]* In an empty directory, what is the output on your screen after this command line: **`touch .a .b .c ; ls *`**
    a. **`. .. .a .b .c`**
    b. **`.a .b .c`**
    c. no output
    d. **`*`**
    e. an error message from **`ls`** saying **`*`** does not exist

12. *[40/90]* In an empty directory, what is the output on your screen of this command line: **`echo hi >foo >bar ; cat foo`**
    a. no output
    b. **`hi`**
    c. **`hi >foo`**
    d. **`hi >foo >bar`**
    e. **`cat: foo: No such file or directory`**

13. *[40/90]* What will recursively find all pathnames named **`bar`** in directory **`foo`**?
    a. **`find foo -name 'bar'`**
    b. **`ls -R 'bar' foo`**
    c. **`grep 'bar' foo`**
    d. **`grep foo -basename 'bar'`**
    e. **`find bar -name 'foo'`**

14. *[41/89]* If file **`nine`** contains 9 lines, each of which is the one-digit line number of the line in the file (**`1`** through **`9`**), what is the output on your screen of this command: **`cat nine nine | tail -n 6 | head -n 1`**
    a. **`4 4`** *b.* **`1`** *c.* **`4`** *d.* **`6 6`** *e.* **`7`**

15. *[43/89]* What is the output on your screen after these command lines:
    `echo one >x ; cp x y ; echo two >>y`
    `sort x >y ; cat y`
    a. **`two`** *b.* **`two`** followed by **`one`**
    c. **`one`** followed by **`two`** *d.* **`one`**
    e. no output

16. *[45/89]* Which pathname almost always leads to the same file named: **`/usr/bin/x`**
    a. **`/usr/./usr/bin/x`**
    b. **`/usr/bin/x/.`**
    c. **`../../../usr/bin/x`**
    d. **`/../usr/./bin/../bin/./x`**
    e. **`./usr/bin/x`**

17. *[46/90]* If file **`a`** contains 1 line, and file **`b`** contains 2 lines, then how many lines are in file **`c`** after this command line:
    `sort a b >c ; cat b b >>a ; cat c b >c a`
    a. **`10`** *b.* **`9`** *c.* **`5`** *d.* **`8`** *e.* **`7`**

18. *[47/90]* Give the minimum number of directories in this valid pathname:
    `/aa/zz/uu/33/ii`
    a. **`2`** *b.* **`4`** *c.* **`5`** *d.* **`6`** *e.* **`3`**

19. *[47/89]* If file **`foo`** contains 2 lines, and file **`bar`** contains 3 lines, then how many lines are output on your screen by this command line:
    `cp foo bar | sort`
    a. **`2`** followed by **`3`** *b.* **`2`**
    c. **`3`** followed by **`2`** *d.* no output on screen
    e. **`3`**

20. *[47/89]* What is the output on your screen after this command line:
    `mkdir d ; touch 1 2 d/.11 d/.22 ; echo d/*`
    a. **`d/1 d/2`**
    b. **`d/.11 d/.22`**
    c. no output
    d. **`d/. d/.. d/.11 d/.22`**
    e. **`d/*`**

21. *[49/89]* Given the pathname **`/etc/passwd`**, the *basename* of this pathname is:
    a. **`etc`** *b.* **`etc/passwd`** *c.* **`passwd`**
    d. **`/etc`** *e.* **`/`**

22. *[49/90]* If I am in directory **/usr/tmp** and **mt** is an empty sub-directory, what is true after this command line:

```
touch foo ; mkdir bar ; mv foo mt/bar
```

a. the directory **mt** now contains a file named **bar**
b. the directory **mt** is still empty
c. the command fails because **mt/bar** is not a directory
d. the directory **bar** now contains a file named **foo**
e. the directory **mt** now contains a file named **foo**

23. *[49/89]* If I am in directory **/usr/tmp** and **mt** is an empty sub-directory, what is true after this command line:

```
touch mt/bar ; mkdir bar ; cp mt/bar bar/foo
```

a. the command fails because the name **bar/foo** does not exist
b. the directory **mt** is now empty
c. the directory **mt** now contains only a file named **foo**
d. the **mkdir** fails because **bar** already exists
e. there is a copy of the file **bar** in the file **foo**

24. *[49/89]* What command shows all the lines in file **/etc/group** that contain the string **idallen**?

a. **grep idallen /etc/group**
b. **grep idallen >/etc/group**
c. **grep /etc/group idallen**
d. **cat /etc/group | find idallen**
e. **cat /etc/group > grep idallen**

25. *[50/90]* If I am in directory **/usr/tmp** and **mt** is an empty sub-directory, what is true after this command line:

```
touch foo ; mkdir bar ; mv foo bar/mt
```

a. the directory **bar** now contains a file named **foo**
b. the directory **mt** is still empty
c. the command fails because **bar/mt** is not a directory
d. the directory **mt** now contains a file named **foo**
e. the directory **mt** now contains a directory named **bar**

26. *[52/90]* What is in file **1** after this command line:

```
echo a b >1 c d
```

a. **echo a b** *b.* **a b**
c. nothing (empty file) *d.* **a b c d**
e. **c d**

27. *[53/90]* If you type the command **sort**, which *CTRL* key will send an **EOF** and take you back to the command prompt?

a. **^D** *b.* **^U** *c.* **^C** *d.* **^R** *e.* **^E**

28. *[53/89]* Which of these command lines will make file **foo** contain all of the content of file **a** followed by all of the content of file **b**?

a. **mv a b >foo**
b. **cp a >foo ; cp b >>foo**
c. **cp a b >foo**
d. **cat a >foo ; cat b >>foo**
e. **echo a b >foo**

29. *[55/90]* How do I search for the string **foo** in the paginated output from the **man** command on my screen?

a. **grep foo** *b.* **@foo** *c.* **help foo**
d. **find foo** *e.* **/foo**

30. *[56/90]* In an empty directory, what happens after this command line:

```
mkdir a b c ; mv a b c
```

a. the directories **a** and **b** are moved into the directory **c**
b. an error message: **mv: target 'c' is not a directory**
c. the directories **a**, **b**, and **c** are moved to the directory **c**
d. the directories **a**, **b**, and **c** are moved to the current directory
e. the directories **a** and **b** are appended to the directory **c**

31. *[58/90]* How many words are in the file **a** after this command line:

```
echo one two >a ; echo me too >a ; echo you >>a
```

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

32. *[59/90]* Which command line displays all the non-hidden names in the current directory that end in the letter **z** (and no other names)?

a. **echo *z*** *b.* **echo z*** *c.* **echo *z**
d. **echo [z]** *e.* **echo ?z**

33. *[62/89]* In a directory that contains only the file **foo**, what happens after this command: **cp foo cat**

a. there is only the file named **cat** in the directory now
b. the command fails because **cat** is not a directory
c. an empty file named **cat** is created
d. the command fails because the name **cat** does not exist
e. there is a copy of the file named **foo** in the file named **cat**

34. *[62/90]* The option to **ls** that shows hidden names is:
a. **-h** *b.* **-1** *c.* **-l** *d.* **-a** *e.* **-i**

35. *[63/90]* Which Unix command line deletes a directory and everything inside it?
a. **rmdir -all dir** *b.* **deltree -all dir**
c. **rm -all dir** *d.* **rmdir -r dir**
e. **rm -r dir**

36. *[64/89]* If file **dog** contains 2 lines, and file **cat** contains 3 lines, then how many lines are output on your screen by this command line:
```
sort dog | head cat
```
a. **2** followed by **3** *b.* **3**
c. **4** *d.* **5**
e. **2** followed by **10**

37. *[64/90]* What is the result of this exact command line: **cat wc cat**
a. the contents of the files **wc** and **cat** will be displayed
b. the names of the pathnames **wc** and **cat** will be displayed
c. file **wc** will be copied to **cat**
d. all the files under directory **wc** with the name **cat** will be displayed
e. the two text strings **wc** and **cat** will be displayed

38. *[64/89]* Which command line displays all the non-hidden names in the current directory that contain the case-insensitive word **hi** (and no other names)?
a. **echo ?[HhIi]?** *b.* **echo ?[HhIiHhIi]?**
c. **echo *(H,h,I,i)*** *d.* **echo *[Hh][Ii]***
e. **echo *[hiHI]***

39. *[64/89]* What is the output of this successful command sequence?
```
cd /tmp ; mkdir foo ; mkdir bar ; pwd
```
a. **/tmp/bar** *b.* **/tmp/foo**
c. **/tmp** *d.* **/tmp/foo/bar**
e. **/bar**

40. *[65/90]* The shell expands a leading tilde (**~**) in a pathname (e.g. **~/abc**) to be:
a. the parent directory *b.* your HOME directory
c. the ROOT directory *d.* the directory **/root**
e. the current directory

41. *[69/90]* In a manual page **SYNOPSIS** section, using square brackets (**[]**) means:
a. something that is repeated *b.* the parent directory
c. a hidden directory *d.* no special meaning
e. something that is optional

42. *[69/90]* To "throw away" (hide) standard error output of a command, use:
a. **cmd 2>/dev/sda1** *b.* **cmd 2>&1**
c. **cmd 1>/dev/sda1** *d.* **cmd 2>/dev/null**
e. **cmd 1>&2**

43. *[72/90]* What is the result of this exact command line: **echo ls cat**
a. the names of the pathnames **ls** and **cat** will be displayed
b. all the files under directory **ls** with the name **cat** will be displayed
c. the two text strings **ls** and **cat** will be displayed
d. the contents of the files **ls** and **cat** will be displayed
e. file **ls** will be copied to **cat**

44. *[76/89]* **Did you read all the words of the test instructions on page one?**
a. **Igen** *(Yes - Hungarian)* *b.* **Tak** *(Yes - Polish)*
c. **Taip** *(Yes - Lithuanian)* *d.* **Sim** *(Yes - Portuguese)*
e. **Jes** *(Yes - Esperanto)*

45. *[82/90]* The command that creates a directory and all parent directories is:
a. **mkdir -p x/y/z** *b.* **mkdir -r x/y/z**
c. **touch x/y/z** *d.* **rmdir -r x/y/z**
e. **rm -r x/y/z**