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: **`Igen`**

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1. *[25/99]* In an empty directory, how many words are in file **`a`** after this:
   ```
   echo a b c d ; ls >a
   ```
   a. **`0`** *b.* **`2`** *c.* **`4`** *d.* **`3`** *e.* **`1`**

2. *[36/99]* In an empty directory, how many words are in file **`foo`** after this command line: **`echo 1 2 3 >a 4 ; mv a b ; ls >foo`**
   a. **`3`** *b.* **`1`** *c.* **`4`** *d.* **`2`** *e.* **`0`**

3. *[40/99]* If file **`foo`** contains 3 lines, and file **`bar`** contains 4 lines, then how many lines are output on your screen by this command line:
   ```
   tail foo | echo bar
   ```
   a. **`1`** *b.* **`3`** *c.* **`4`**
   d. **`3`** followed by **`4`** *e.* **`3`** followed by **`1`**

4. *[48/99]* How many arguments and options are there to the command:
   ```
   ls -l ls wc
   ```
   a. Three command line arguments with no options.
   b. Three command line arguments, one of which contains one option.
   c. Three pathname arguments and no options.
   d. One option and three command names.
   e. Two command line arguments and one option.

5. *[51/99]* 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: **`sort nine nine | tail -n 5 | head -n 1`**
   a. **`1 1`** *b.* **`7`** *c.* **`1`** *d.* **`5 5`** *e.* **`5`**

6. *[51/99]* If I am in directory **`/tmp`** and **`dir`** is an empty sub-directory, what is true after this command line:
   ```
   touch bar ; mkdir dog ; mv bar dir/dog
   ```
   a. the directory **`dir`** is still empty
   b. the command fails because **`dir/dog`** is not a directory
   c. the directory **`dir`** now contains a file named **`bar`**
   d. the directory **`dog`** now contains a file named **`bar`**
   e. the directory **`dir`** now contains a file named **`dog`**

7. *[52/99]* If I am in directory **`/tmp`** and **`dir`** is an empty sub-directory, what is true after this command line:
   ```
   touch cow ; mkdir pig ; mv cow pig/dir
   ```
   a. the command fails because **`pig/dir`** is not a directory
   b. the directory **`dir`** now contains a directory named **`pig`**
   c. the directory **`pig`** now contains a file named **`cow`**
   d. the directory **`dir`** now contains a file named **`cow`**
   e. the directory **`dir`** is still empty

8. *[53/99]* If you type the command **`tail`**, which *CTRL* key will send an **EOF** and take you back to the command prompt?
   a. **`^C`** *b.* **`^D`** *c.* **`^R`** *d.* **`^U`** *e.* **`^E`**

9. *[53/99]* What command will recursively find all pathnames named **`foo`** in **`/etc`**?
   a. **`ls -R 'foo' /etc`**
   b. **`grep 'foo' /etc`**
   c. **`find /etc -name 'foo'`**
   d. **`grep /etc -basename 'foo'`**
   e. **`find foo -name '/etc'`**

10. *[55/98]* If my current directory is **`/foo`**, which command copies the password file into existing directory **`/foo/dir`** under the name **`bar`**?
    a. **`cp dir/../../etc/passwd dir/bar`**
    b. **`cp ../foo/./dir/../etc/passwd ./dir/./bar`**
    c. **`cp ././dir/../etc/passwd ../foo/dir/bar`**
    d. **`cp ../../etc/./passwd /dir/bar`**
    e. **`cp ./../etc/passwd ../dir/bar`**

11. *[56/99]* What is the output on your screen after this command line:
```
mkdir d ; touch  a  b  d/.aa  d/.bb ; echo d/*
```
a. **d/. d/.. d/.aa d/.bb**
b. no output
c. **d/***
d. **d/a d/b**
e. **d/.aa d/.bb**

12. *[57/99]* If I am in directory **/tmp** and **foo** is an empty sub-directory, what is true after this command line:
```
touch foo/bar ; mkdir bar ; mv foo/bar bar/me
```
a. the **mkdir** fails because **bar** already exists
b. the command fails because the name **bar/me** does not exist
c. the directory **foo** is now empty
d. there is a second copy of the file **bar** in the file named **me**
e. the directory **foo** now contains only a file named **me**

13. *[57/99]* In an empty directory, what is the output on your screen after this command line: **echo hi >.foo ; touch .a .b .c ; ls ***
a. *****
b. **.foo .a .b .c**
c. an error message from **ls** saying ***** does not exist
d. no output
e. **. .. .foo .a .b .c**

14. *[57/99]* What is the output of this command line in an empty directory:
```
date >.a ; touch .b ; echo .*
```
a. **.b**
b. **. .. .a .b**
c. **.***
d. an error message from **echo** saying **.*** does not exist
e. **.a .b**

15. *[57/99]* What is the output of this command line in an empty directory:
```
touch 1 .1 23 .23 456 ; echo [12]*
```
a. **1 .1 23 .23 456**
b. **1 23**
c. **[12]***
d. an error message from **echo** saying **[ab]*** does not exist
e. **1 .1 23 .23**

16. *[58/98]* What command shows all the lines in file **file** that contain the text **text**?
a. **cat file > fgrep text**
b. **fgrep text >file**
c. **fgrep file text**
d. **fgrep text file**
e. **cat file | find text**

17. *[59/99]* If file **a** contains 2 lines, and file **b** contains 3 lines, then how many lines are in file **c** after this command line:
```
cat a b >c ; cat a >>b ; sort c b >c a
```
a. **12** *b.* **7** *c.* **8** *d.* **0** *e.* **5**

18. *[59/99]* What is the correct syntax to redirect both standard output and standard error into the same output file?
a. **cmd 2>1 >out**
b. **cmd 1>out 2>out**
c. **cmd >out 2>&1**
d. **cmd 1>out 2>1**
e. **cmd 2>&1 >out**

19. *[60/99]* Give the minimum number of directories in this valid pathname:
```
/dog/cat/pig/cow/moo
```
a. **4** *b.* **6** *c.* **5** *d.* **3** *e.* **2**

20. *[60/98]* If I am in directory **/tmp** and **foo** is an empty sub-directory, what is true after this command line:
```
touch foo/bar ; mkdir foo/me ; cp foo/bar ./foo/../me
```
a. there is a second copy of the file **bar** in directory **foo**
b. the directory **foo** is now empty
c. the directory **foo** now contains only a file named **me**
d. the command fails because the name **foo/bar** does not exist
e. there is a second copy of the file **bar** in file **/tmp/me**

21. *[60/99]* If my current directory is **/lib**, which of these pathnames is equivalent to the file name **/bin/ls**?
a. **/root/bin/ls**
b. **./../bin/ls**
c. **ls/.**
d. **./bin/ls**
e. **../bin/ls/.**

22. *[60/98]* In a manual page **SYNOPSIS** section, ellipsis (three dots) (**...**) mean:

a. a hidden directory
b. no special meaning
c. something that is optional
d. the parent directory
e. something that is repeated

23. *[61/99]* How do I search for the string **text** in the paginated output from the **man** command on my screen?

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

24. *[61/99]* In an empty directory, what is the output on your screen of this command line: **echo hi >foo >bar ; cat foo**

a. **hi**
b. **hi >foo**
c. **cat: foo: No such file or directory**
d. no output
e. **hi >foo >bar**

25. *[63/99]* If file **foo** contains 3 lines, and file **bar** contains 4 lines, then how many lines are output on your screen by this command line:

```
cp foo bar | cat
```

a. **4**
b. **3** followed by **4**
c. no output on screen
d. **4** followed by **3**
e. **3**

26. *[63/97]* 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. **one** followed by **two**
c. **two** followed by **one**
d. **one**
e. no output

27. *[64/98]* What is the result of this exact command line:

```
cat /dog cat
```

a. file **/dog** will be copied to **cat**
b. the contents of the files **/dog** and **cat** will be displayed
c. the two text strings **/dog** and **cat** will be displayed
d. the names of the pathnames **/dog** and **cat** will be displayed
e. all the files under directory **/dog** with the name **cat** will be displayed

28. *[66/99]* If file **dog** contains 3 lines, and file **cat** contains 4 lines, then how many lines are output on your screen by this command line:

```
cat dog | tail cat
```

a. **3**
b. **4** followed by **3**
c. **3** followed by **4**
d. **4**
e. **5**

29. *[66/99]* Which command line displays all the non-hidden names in the current directory that contain the letter **z** (and no other names)?

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

30. *[67/99]* 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 *(H,h,I,i)***
b. **echo *[hiHI]***
c. **echo ?[HhIi]?**
d. **echo *[Hh][Ii]***
e. **echo ?[HhIiHhIi]?**

31. *[67/99]* 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. **echo a b >foo**
b. **cp a >foo ; cp b >>foo**
c. **mv a b >foo**
d. **cp a b >foo**
e. **cat a >foo ; cat b >>foo**

32. *[67/99]* Which Unix command line deletes a directory and everything inside it?

a. **rmdir -r dir**
b. **rm -r dir**
c. **rmdir -all dir**
d. **rm -all dir**
e. **deltree -all dir**

33. *[68/99]* What is in file **a** after this command line:

```
echo 1 2 >a 3 4
```

a. **1 2**
b. **echo 1 2**
c. nothing (empty file)
d. **1 2 3 4**
e. **3 4**

34. *[69/99]* In a directory that contains only the file **dog**, what happens after this command: **cp dog cat**

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

35. *[70/99]* What is the result of this exact command line:
    echo /pig cow

    a. all the files under directory **/pig** with the name **cow** will be displayed
    b. file **/pig** will be copied to **cow**
    c. the names of the pathnames **/pig** and **cow** will be displayed
    d. the two text strings **/pig** and **cow** will be displayed
    e. the contents of the files **/pig** and **cow** will be displayed

36. *[71/98]* Given the pathname **/usr/bin/foo**, the *basename* of this pathname is:

    a. **bin** *b.* **foo** *c.* **usr**
    d. **/** *e.* **/usr/bin**

37. *[71/99]* Which pathname almost always leads to the same file named: **/bin/ls**

    a. **/../bin/./ls** *b.* **./bin/../ls**
    c. **./bin/ls** *d.* **/bin/ls/.**
    e. **/bin/./bin/ls**

38. *[73/99]* The option to **ls** that shows hidden names is:

    a. **-a** *b.* **-1** *c.* **-i** *d.* **-l** *e.* **-h**

39. *[73/98]* To "throw away" (hide) standard error output of a command, use:

    a. **cmd 1>/dev/sda1** *b.* **cmd 2>/dev/sda1**
    c. **cmd 2>&1** *d.* **cmd 1>&2**
    e. **cmd 2>/dev/null**

40. *[75/99]* The shell expands a leading tilde (**~**) in a pathname (e.g. **~/foo**) to be:

    a. your HOME directory *b.* the parent directory
    c. the current directory *d.* the directory **/root**
    e. the ROOT directory

41. *[75/99]* What is the output of this successful command sequence?
    cd /tmp ; mkdir foo ; mkdir bar ; pwd

    a. **/tmp/foo** *b.* **/tmp/foo/bar**
    c. **/tmp** *d.* **/bar**
    e. **/tmp/bar**

42. *[76/99]* How many words are in the file **a** after this command line:
    echo one two >a ; echo me >a ; echo you >>a

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

43. *[81/99]* Which *CTRL* key will send an **Interrupt** to make a command end and take you back to the command prompt?

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

44. *[86/99]* The command that creates a directory and all parent directories is:

    a. **mkdir -r x/y/z** *b.* **touch x/y/z**
    c. **rmdir -r x/y/z** *d.* **rm -r x/y/z**
    e. **mkdir -p x/y/z**

45. *[86/98]* **Did you read all the words of the test instructions on page one?**

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