Evaluation: 45 Questions **Name: _____**

Important Instructions

1. Read all the instructions and both sides (back and front) of all pages.
2. Manage your time when answering questions on this test.
   Answer the questions you know, first.

Multiple Choice - 45 Questions - 15 of 15%

(Office use only: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45)

1. Which command line outputs inode/filename pairs for names in the current directory, sorted by inode number?
   † **a**. **`ls -i -a | sort -n`**
   b. **`ls -a | sort -i`**
   c. **`sort -n | ls -ai`**
   d. **`sort ls -ia`**
   e. **`ls -ia > sort -n`**

2. Select the correct **`bash`** shell order of command line processing:
   † **a**. quotes, redirection, variables, globs
   b. quotes, variables, redirection, globs
   c. quotes, variables, globs, redirection
   d. quotes, globs, variables, redirection
   e. redirection, quotes, globs, variables

3. If **`/bin/bash`** is a file name, which pathname always leads to the same file?
   † **a**. **`/../bin/./bash`**
   b. **`./../bin/bash`**
   c. **`/bin/../bash`**
   d. **`/bin/bash/.`**
   e. **`/bin/bin/../bash`**

4. If you type the command **`grep pattern`**
   which key sequence will send an EOF and take you immediately back to the command prompt?
   † **a**. **`[CTRL-D]`**
   b. **`[CTRL-C]`**
   c. **`[CTRL-L]`**
   d. **`[CTRL-U]`**
   e. **`[CTRL-R]`**

5. If you type the command **`sleep 60`**
   which key sequence will interrupt it and take you immediately back to the command prompt?
   † **a**. **`[CTRL-C]`**
   b. **`[CTRL-D]`**
   c. **`[CTRL-L]`**
   d. **`[CTRL-U]`**
   e. **`[CTRL-R]`**

6. Which of the command lines below can generate a non-empty file?
   † **a**. **`ls -l file >file`**
   b. **`cat file >file`**
   c. **`grep pattern file >file`**
   d. **`head -1 file >file`**
   e. **`sort -r file >file`**

7. Which command line below never shows any lines from inside the file **`cow`**?
   † **a**. **`wc -l cow`**
   b. **`head -1 cow`**
   c. **`grep pattern cow`**
   d. **`sort -r cow`**
   e. **`tail -8 cow`**

8. How many command arguments does the shell pass to this **`echo`** command:
   `echo 'It's "1 2" isn't it? I can't decide.`
   † **a**. Four arguments.
   b. Five arguments.
   c. Six arguments.
   d. Two arguments.
   e. Three arguments.

9. How many command arguments does the shell pass to this **`echo`** command:
   `echo one two three >four five`
   † **a**. Four arguments.
   b. Five arguments.
   c. Six arguments.
   d. Two arguments.
   e. Three arguments.

10. Which statement is true, given this long directory listing from **`ls`**:
    `drwxr-x--x 256 ian user 512 May 30 12:35 dir`
    † **a**. The number 512 is the size of this directory.
    b. The number 512 is the count of links (names) this directory has.
    c. The number 256 is the inode number of this directory.
    d. The number 256 is the octal permissions of this directory.
    e. The number 256 is the size of this directory.

11. What is the output on your screen of this shell command line in an empty directory?
```
echo *
```
† **a**. *****
b. an error message from **echo** saying ***** does not exist
c. **. ..**
d. **.**
e. no output on screen

12. What is the output on your screen of this shell command line in an empty directory?
```
ls *
```
† **a**. an error message from **ls** saying ***** does not exist
b. *****
c. **. ..**
d. **.**
e. no output on screen

13. If file **nine** contains nine 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 -5 | head -1
```
† **a**. **7**
b. **1**
c. **9**
d. **5 5**
e. **1 1**

14. How many lines are in file **out** after this command line?
```
echo hi >dog >out >cat
```
† **a**. empty file (no data)
b. **1**
c. **3**
d. **2**
e. no such file (file does not exist)

15. Which command line lists all possible utilities available for compiling programs?
† **a**. **man -k compile**
b. **man compile**
c. **grep compile /etc/***
d. **grep /etc/* compile**
e. **man * | grep compile**

16. Given this long listing:
```
drwxr-xr-x 296 me me 448 Dec 4 9:12 /dir
```
How many subdirectories lie immediately under **/dir**?
† **a**. 294
b. 296
c. 446
d. 448
e. there is not enough information shown to answer the question

17. How many lines are in the file **bar** after this command line:
```
echo hi >x ; echo ho >>x ; cat x >bar
```
† **a**. **2**
b. **4**
c. **6**
d. **1**
e. nothing - empty file - no data

18. How many arguments and options are there to the command: **wc -wc /sort**
† **a**. Two command line arguments, one of which contains two bundled options.
b. Two arguments, one of which is a single option and the other is a pathname.
c. A three-letter file name and a **/sort** switch option argument.
d. Two arguments, no options.
e. Two options, no arguments.

19. In an empty directory, how many arguments are passed to the **wc** command in this command line? **date >o1 ; touch a1 b2 out >o1 ; wc o***
† **a**. **2**
b. **3**
c. **4**
d. **5**
e. **1**

20. If directory **/a** contains these seven two-character file names: **aa**, **ab**, **ac**, **ad**, **a***, **a?**, **??**, then which shell command below will remove only the single name **a?** from the directory?
† **a**. **rm '/a/a?'**
b. **rm /a/?\?**
c. **rm /a/a?**
d. **rm "/a?"**
e. **rm /a\?**

21. Which command line below outputs only lines 20-25 of the 36-line file named **cow**?
† **a**. **head -25 cow | tail -6**
b. **head -25 cow | tail -5**
c. **head -25 cow | tail -6 cow**
d. **head -25 | tail -6 cow**
e. **tail -6 | head -25 cow**

22. What is in the file **cow** after this command line:
```
echo a >a ; echo b >b ; mv a b >cow
```
† **a**. nothing - empty file - no data
b. **a** followed by **b**
c. **a**
d. **b**
e. no such file (nonexistent)

23. If directory **cow** contains only these four three-character file names: **.AA**, **.A1**, **.BB**, **.B.**, then what is the output on your screen of this command line:
```
echo cow/*
```
† **a**. **cow/***
b. **cow/.AA cow/.A1 cow/.BB cow/.B.**
c. **cow/.AA cow/.A1 cow/.BB**
d. **cow/.B.**
e. no output on screen

24. Which of these command lines will make file **cow** contain all of the content of file **one** followed by all of the content of file **two**?
† **a**. **cat one two >cow**
b. **cp one two >cow**
c. **cp one >cow two >cow**
d. **mv one two >cow**
e. **echo one two >cow**

25. In an empty directory, how many words are in file **pig** after this command line?
```
touch pig pig ; ls >pig
```
† **a**. **1**
b. **3**
c. **2**
d. **4**
e. empty file (no data)

26. What is the possible output on your screen of this command line:
```
echo wc >date ; sort date >date ; cat date
```
† **a**. no output on screen
b. **wc**
c. **1 6 28 date**
d. **1 6 29 date**
e. **Wed Jan 26 13:00:00 EST 2005**

27. If I am in my home directory named **/home/myhome** and **dir** is an empty sub-directory, what is true after this command line:
```
touch new ; mv ./dir/../new ../myhome/old
```
† **a**. the parent directory of **dir** now has a file named **old** in it
b. the directory **dir** now contains only a file named **old**
c. there is a second copy of the file **new** in the file named **old**
d. the command fails because the path **./dir/../new** does not exist
e. the command fails because the path **../myhome/old** does not exist

28. If file **x** contains ten lines, and file **y** contains twenty lines, then how many lines are in file **cat** after this command line:
```
sort x y >z ; tail -5 x >x ; sort x y z >cat
```
† **a**. **50**
b. **55**
c. **60**
d. **40**
e. no lines (empty file)

29. If file **twenty** contains twenty lines, and file **thirty** contains thirty lines, then how many lines are output by this command: **tail twenty | cat thirty**
† **a**. **30**
b. **50**
c. **20**
d. **40**
e. no output on screen

30. If my current directory is **/usr**, which of these pathnames is equivalent to the pathname **/usr/x/y/z**?
† **a**. **x/./y/z**
b. **/x/y/z**
c. **./usr/x/y/z**
d. **../x/y/z**
e. **../usr/y/z**

31. What is the output on your screen of this successful command line?
```
cd /home/myhome ; mkdir foo ; mkdir bar ; pwd
```
† **a**. **/home/myhome**
b. **/home/myhome/foo**
c. **/home/myhome/bar**
d. **/home/myhome/foo/bar**
e. **/bar**

32. Which command line displays all the names in the current directory that are exactly three digits long (and no others)?
† **a**. **echo [0-9][0-9][0-9]**
b. **echo [1-3][1-3][1-3]**
c. **echo [3][3][3]**
d. **echo [?][?][?]**
e. **echo ???**

33. What is in file **two** after running this command line?
```
echo one >two three four
```
† **a**. **one three four**
b. **one**
c. **echo one**
d. **three four**
e. empty file (no data)

34. What command shows all the lines in file **foo** that contain the string **bar**?
† **a**. **grep bar foo**
b. **grep <bar foo**
c. **grep foo bar**
d. **cat foo > grep bar**
e. **find foo bar**

35. In the output of the command **`ls -i -a`**, a dot that begins a pathname signifies what?
† **a**. A name that is hidden.
b. The parent directory.
c. The current directory.
d. A name with an unprintable character.
e. An inode (index) numbered file.

36. When doing an **`ls -a`**, the output pathname that is a double dot (**`..`**) signifies what?
† **a**. The parent directory.
b. A hidden file.
c. The current directory.
d. The root directory.
e. A pathname with double links.

37. Which Unix command line deletes a directory and everything inside it?
† **a**. **`rm -r dir`**
b. **`rm -all dir`**
c. **`rmdir -r dir`**
d. **`rmdir -all dir`**
e. **`deltree -all dir`**

38. What appears on your screen after this command line?
`mkdir xx ; rmdir xx | wc -c`
† **a**. **`0`**
b. **`1`**
c. **`2`**
d. **`3`**
e. no output on screen

39. What appears on your screen after this command line?
`echo hi >ls ; cat ls >wc`
† **a**. no output on screen
b. **`1 1 2`**
c. **`1 1 3`**
d. **`ls`**
e. **`hi`**

40. Which of these commands always returns you to your account home directory?
† **a**. **`cd`**
b. **`cd /home`**
c. **`cd home`**
d. **`cd ..`**
e. **`cd /home/..`**

41. In an empty directory, how many files are created by this command:
`touch a "b c" ' ' d e`
† **a**. **`5`**
b. **`6`**
c. **`7`**
d. **`3`**
e. **`4`**

42. Which command line displays all the non-hidden names in the current directory that contain the letter **`x`** (and no others)?
† **a**. **`echo *x*`**
b. **`echo ?x?`**
c. **`echo [x]`**
d. **`echo *x`**
e. **`echo x*`**

43. What is the output on your screen of the following command sequence if run in a directory containing 123 files with names that are all the numbers from **`1`** to **`123`** inclusive: **`glob="*" ; echo "$glob"`**
† **a**. **`*`**
b. **`$glob`**
c. **`"$glob"`**
d. the file names **`1`** through **`123`**
e. the file names **`1`** through **`123`**, surrounded by quotes

44. What is the link count of file **`bar`** after this set of successful commands?
`rm bar ; date >bar ; ln bar foo`
`cp bar z ; ln z x ; ln foo y ; ln z a`
† **a**. 3
b. 1
c. 2
d. 4
e. 5

45. If file **`bar`** occupies one disk block, how many disk blocks are in use after this sequence of commands:
`cp bar one ; ln one two ; cp bar two ; ln bar foo`
† **a**. 2 blocks
b. 3 blocks
c. 4 blocks
d. 5 blocks
e. 1 block

Answer Key - NET 2003 – Ian Allen – Winter 2005 - NET 2003 Unix Test #1 - 15%

Office use only: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

```
 1. a                                  45. a
 2. a
 3. a                          Count of a:  45  100%
 4. a
   5. a                        With 5 choices: 45
   6. a                          1 2 3 4 5 6 7 8 9 10 11 12
   7. a                          13 14 15 16 17 18 19 20 21
   8. a                          22 23 24 25 26 27 28 29 30
 9. a                            31 32 33 34 35 36 37 38 39
10. a                            40 41 42 43 44 45
11. a
12. a                         Macro .cmd split no indent: 0
  13. a                       Macro .cmd split with indent: 21
  14. a                       Macro .ans splits: 0
  15. a
  16. a
17. a
18. a
19. a
20. a
  21. a
  22. a
  23. a
  24. a
25. a
26. a
27. a
28. a
  29. a
  30. a
  31. a
  32. a
33. a
34. a
35. a
36. a
  37. a
  38. a
  39. a
  40. a
41. a
42. a
43. a
44. a
```