Evaluation: 44 Questions **Name: _____**

Important Instructions

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

Multiple Choice - 44 Questions - 12 of 35%

(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)

1. Which command sequence below does *not* generate an error message from the last command in the sequence?
   † **a**. `mkdir ddd ddd/fff fff ; rmdir ddd/fff`
   b. `mkdir foo bar ; ln foo xxx`
   c. `date >foo ; cp foo/. bar`
   d. `cat /etc/passwd > mail idallen@idallen.ca`
   e. `mkdir foo ; touch foo/bar ; rmdir foo`

2. What is the link count of directory **x** after this set of successful commands?
   `mkdir x ; mkdir x/y ; mkdir x/z ; mkdir x/y/z`
   † **a**. 4
   b. 3
   c. 2
   d. 5
   e. 1

3. What is the link count of directory **d** after this set of successful commands?
   `mkdir d ; mkdir d/a ; touch d/b`
   † **a**. 3
   b. 2
   c. 5
   d. 1
   e. 4

4. What is the link count of directory **d** after this set of successful commands?
   `mkdir d ; touch f ; cd d ; ln ../f x`
   † **a**. 2
   b. 5
   c. 3
   d. 1
   e. 4

5. What is the link count of directory **d** after this set of successful commands?
   `mkdir d ; cd d ; touch f ; ln f x ; ln f y`
   † **a**. 2
   b. 5
   c. 3
   d. 1
   e. 4

6. What is the link count of directory **d** after this set of successful commands?
   `mkdir d ; cd d ; touch a ; mkdir b c d`
   † **a**. 5
   b. 4
   c. 3
   d. 2
   e. 6

7. What is the link count of file **f** after this set of successful commands?
   `rm f ; touch f ; cp f x`
   `ln f a ; ln x y ; ln a z ; ln x b`
   † **a**. 3
   b. 4
   c. 5
   d. 6
   e. 2

8. What will appear on your screen after this sequence of commands:
   `echo one >x ; ln x y ; echo ten >y ; echo two >x ; cat y`
   † **a**. **two**
   b. **ten**
   c. **one**
   d. **one** followed by **ten** and **two**
   e. no output on screen

9. What will appear on your screen if you execute this sequence of commands in your home directory:
   `ln /etc/passwd bar ; ln bar foo ; echo hi >foo ; cat foo`
   † **a**. an error message and then the contents of the password file
   b. the conents of the password file followed by **hi**
   c. an error message and then **hi**
   d. **hi**
   e. **foo**

10. What will appear on your screen if you execute this sequence of commands:
    `echo 1 >a ; ln a b ; echo 2 >b ; chmod 266 b ; cat a`
    † **a**. an error message
    b. **1**
    c. **2**
    d. **1** followed by **2**
    e. no output on screen

11. Who is the owner of file **bar** after you execute this sequence of commands in your home directory: `ln /etc/passwd x ; ln x y ; cp y z ; ln y bar`
    † **a**. the file is owned by **root**
    b. you own the file **bar**
    c. the file is owned by **home**
    d. the file is owned by **passwd**
    e. you cannot execute the given commands; no file will be created

12. If file **foo** occupies two disk blocks, how many disk blocks are in use after this sequence of commands:
```
cp foo bar ; ln bar one ; cp one two ; ln one ten
```
† **a**. 6 blocks
b. 4 blocks
c. 2 blocks
d. 8 blocks
e. 10 blocks

13. What appears on your screen after this sequence of commands:
```
echo 1 >x ; ln x y ; echo 2 >>y ; head -1 x >y ; cat y
```
† **a**. empty file - no output on the screen
b. **1**
c. **2**
d. **1** followed by **2**
e. **2** followed by **1**

14. What appears on your screen after this sequence of commands:
```
echo 1 >x ; cp x y ; echo 2 >>y ; sort x >y ; cat y
```
† **a**. **1**
b. **1** followed by **2**
c. **2**
d. **2** followed by **1**
e. empty file - no output on the screen

15. What appears on your screen after this sequence of commands:
```
echo 1 >x ; ln x y ; echo 2 >>y ; sort x
```
† **a**. **1** followed by **2**
b. **1**
c. **2**
d. **2** followed by **1**
e. empty file - no output on the screen

16. What is true about this output from **ls -il foo bar**
```
23 -rwxr----- 3 root root 2 Jul 31 12:33 foo
24 -rwxr----- 3 root root 2 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. **foo** and **bar** are two of three names for this file
d. **foo** and **bar** each have two names (four names total)
e. this output is not possible

17. What is true about this output from **ls -il foo bar**
```
72 -rwxrwxrwx 2 bin  bin  3 Oct 30 09:23 foo
72 -r--r--r-- 2 bin  bin  3 Oct 30 09:23 bar
```
† **a**. this output is not possible
b. **foo** and **bar** are names for different files
c. **foo** and **bar** are names for the same file
d. **foo** and **bar** are two of three names for this file
e. **foo** and **bar** each have two names (four names total)

18. What is true about this output from **ls -ild foo bar**
```
96 -rwxr-xr-x 2 root root 3 Jan 24 01:03 foo
96 -rwxr-xr-x 3 root root 3 Jan 24 01:03 bar
```
† **a**. this output is not possible
b. **foo** and **bar** are names for different files
c. **foo** and **bar** are names for the same file
d. **foo** and **bar** are two of five names for this file
e. **foo** and **bar** each have three names (six names total)

19. What is true about this output from **ls -il foo bar**
```
15 -r-x-----x 2 bin  bin  3 Oct 30 09:23 foo
15 -r-x-----x 2 bin  bin  3 Oct 30 09:23 bar
```
† **a**. **foo** and **bar** are names for the same file
b. **foo** and **bar** are names for different files
c. **foo** and **bar** are two of three names for this file
d. **foo** and **bar** each have three names (six names total)
e. this output is not possible

20. What is true about this output from **ls -il foo bar**
```
35 -rw-rw-r-- 2 bin  bin  3 Jan 24 01:03 foo
36 -rw-rw-r-- 2 bin  bin  3 Jan 24 01:03 bar
```
† **a**. **foo** and **bar** each have two names (four names total)
b. **foo** and **bar** each have three names (six names total)
c. **foo** and **bar** are names for the same file
d. **foo** and **bar** are two of three names for this file
e. this output is not possible

21. A **Makefile** contains the following target: **ant: foo bar**
which means:
† **a**. item ant depends on items foo and bar
b. items foo and bar depend on item ant
c. items ant and foo depend on item bar
d. item bar depends on items ant and foo
e. the syntax "ant:" is not valid in a Makefile target

22. A **Makefile** contains the following lines:
```
one:
        rm foo bar
```
This means:
† **a**. if the user types "make one", items foo and bar will be removed
b. if the user types "make foo", items foo and bar will be removed
c. if the user types "make bar", items foo and bar will be removed
d. if the user types "make rm", items foo and bar will be removed
e. the syntax "one:" is not valid in a Makefile target

23. The correct **g++** compiler suffix for a C++ source file is:
† **a**. **.cpp**
b. **.cplus**
c. **.g++**
d. **.gpp**
e. **.C++**

24. The correct option to enable warning messages from the **g++** compiler is:
† **a**. **-Wall**
b. **-wALL**
c. **-wall**
d. **-warn**
e. **+Warn**

25. The default output file generated by the C and C++ compilers is named:
† **a**. **a.out**
b. **a.cpp**
c. **a.c++**
d. **a.o**
e. **argv**

26. In an empty directory, what is the length of the longest file name (including extension) after this sequence of commands?
```
date >sixsix ; cp sixsix no ; mv sixsix four ; gzip no
```
† **a**. 5
b. 4
c. 3
d. 2
e. 6

27. In an empty directory, what is the length of the longest file name (including extension) after this sequence of commands?
```
date >four ; cp four five5 ; mv five5 hi ; bzip2 hi
```
† **a**. 6
b. 5
c. 4
d. 3
e. 7

28. Which command line copies all the files from directory **a** to directory **b**?
† **a**. **cd a ; tar czf /tmp/i . ; cd ../b ; tar xzf /tmp/i**
b. **cd a ; tar czf /tmp/i . ; cd ../b ; tar xvf /tmp/i**
c. **cd a ; tar xf /tmp/i . ; cd ../b ; tar czvf /tmp/i**
d. **cd a ; tar -r /tmp/i . ; cd ../b ; tar -rvx /tmp/i**
e. **cd a ; tar -rc /tmp/i . ; cd ../b ; tar -rx /tmp/i**

29. What is the output on your screen if a user signals an end-of-file from the keyboard during this command sequence? **read input && echo $?**
† **a**. no output on screen
b. **$?**
c. **0**
d. **1**
e. an error message

30. What is the output on your screen if a user signals an end-of-file from the keyboard during this command sequence? **read input || echo $?**
† **a**. **1**
b. no output on screen
c. **$?**
d. **0**
e. an error message

31. What is the output on your screen if a user signals an end-of-file from the keyboard during this command sequence? **read input ; echo $?**
† **a**. **1**
b. no output on screen
c. **$?**
d. **0**
e. an error message

32. If variable **a** might contain nothing (a null value - defined but empty), which command sequence correctly tests for this and prints the date?
† **a**. **if test "" = "$a" ; then date ; fi**
b. **if [$a = /dev/null] ; then date ; fi**
c. **if test "" -eq $a ; then date ; fi**
d. **if ['''' = ''$a''] ; then date ; fi**
e. **if ["$a" = *] ; then date ; fi**

33. What is the output on your screen of the following sequence of commands:
```
a=pig ; b=bat ; touch $b ; test -n $b ; echo $?
```
† **a**. **0**
b. **1**
c. the number 0 or 1 followed by another 0 or 1 on a new line
d. **test: $b: integer expression expected**
e. no output

34. If directory **/000** contains these three four-character file names: **.abc**, **.xyz**, **.???**, then what is the output on your screen of the following command line:
```
echo /000/????
```
† **a**. **/000/????**
b. **/000/.abc /000/.xyz /000/.???**
c. **/000/.abc /000/.xyz**
d. **echo: /000/????: No such file or directory**
e. no output

35. Which command line below allows programs in the current directory to execute without preceding the names with **./**?

† **a**. **PATH=/usr/bin:.:/bin**
b. **PATH=/usr/bin/.:$HOME**
c. **PATH=./$HOME:/usr/bin**
d. **$PATH=/usr/bin:./bin**
e. **$PATH=.:$HOME:/usr/bin**

36. Which command sequence correctly searches for **foo** and then prints the date if it is found inside the file **bar**?

† **a**. **if grep <bar foo ; then date ; fi**
b. **if [grep foo bar] ; then date ; fi**
c. **if test foo bar ; then date ; fi**
d. **if test foo = bar ; then date ; fi**
e. **if [test foo bar] ; then date ; fi**

37. In an empty directory, what is the output on your screen of these commands:

```
touch uu .u uv .v uw ; a="*u *v" ; echo "$a"
```

† **a**. ***u *v**
b. **u* v***
c. **uu uv**
d. **uu .u uv .v**
e. **$a**

38. What is the output on your screen of this command sequence:

```
echo bat >pig ; echo one | tail pig
```

† **a**. **bat**
b. **one**
c. **bat** followed by **one**
d. **one** followed by **bat**
e. an error message

39. If **cow=cow** and **pig=pig** then which of the following command lines outputs only the date (and nothing else)?

† **a**. **test cow = cow && date**
b. **test cow -ne pig && date**
c. **[!cow = pig] && date**
d. **[cow -ne pig] || date**
e. **[cow!=cow] || date**

40. What is the output on your screen of this two-command sequence:

```
cd /home || echo "cd $(pwd)"
```

† **a**. no output
b. **cd /home**
c. **cd 0pwd)**
d. **cd $(pwd)**
e. **/home**

41. What is the output on your screen of this sequence of three shell commands:

```
umask 475 ; mkdir dir ; ls -ld dir
```

† **a**. **d-wx----w- 2 it it 400 Jul 3 8:00 dir**
b. **d-w-----w- 2 it it 400 Jul 3 8:00 dir**
c. **d-wxrwx-w- 2 it it 400 Jul 3 8:00 dir**
d. **dr--rwxr-x 2 it it 400 Jul 3 8:00 dir**
e. **dr-xrwxr-x 2 it it 400 Jul 3 8:00 dir**

42. What is the output on your screen of this sequence of three shell commands:

```
echo ls >cat ; >cat ls cat ; wc cat
```

† **a**. **1 1 4 cat**
b. **1 1 3 cat**
c. **1 1 2 cat**
d. **0 0 0 cat**
e. no output

43. What is the output on your screen of the following sequence of commands:

```
x=0 ; [ $x = 00 ] ; echo $?
```

† **a**. **1**
b. **0**
c. the number 0 or 1 followed by another 0 or 1 on a new line
d. **test: $x: integer expression expected**
e. no output

44. Select the correct **bash** shell order of command line processing:

† **a**. aliases, redirection, variables, GLOBs
b. aliases, variables, redirection, GLOBs
c. aliases, variables, GLOBs, redirection
d. aliases, GLOBs, variables, redirection
e. redirection, aliases, GLOBs, variables

Answer Key - DAT 2330 – Ian Allen – Fall 2004 - DAT 2330 Unix Test #4 - 35%

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

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