**Evaluation: 42 Questions** **Name: _____**

**Important Instructions**

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

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

1. If your terminal type is **xterm,** what is the output of this **bash** shell command line? **echo '$TERM'**
   a. **'$TERM'**
   b. **'xterm'**
   c. **xterm**
   d. no output
   e. **$TERM**

2. What is the output of this successful command sequence?
   **cd /home/dir ; mkdir one ; mkdir two ; pwd**
   a. **/home/dir**
   b. **/two**
   c. **/home/dir/one**
   d. **/home/dir/one/two**
   e. **/home/dir/two**

3. What is in the file **out** after this command sequence:
   **echo hi >x ; echo ho >>x ; cp x y >out**
   a. no such file (nonexistent)
   b. **hi** followed by **ho**
   c. **hi**
   d. nothing - empty file - no data
   e. **ho**

4. If **/bin/bash** is a file name, which of the following pathnames always leads to the same file?
   a. **/bin/bash/.**
   b. **/bin/bin/../bash**
   c. **/bin/../bin/bash**
   d. **./bin/bash**
   e. **/bin/../bash**

5. If my current directory is **/etc**, which of these pathnames is equivalent to the file name **/etc/passwd**?
   a. **/passwd**
   b. **../passwd**
   c. **./passwd**
   d. **../etc/passwd/.**
   e. **./etc/passwd**





6. What can you do to get back (redo) the last command you typed to the **bash** (Linux) shell?
   a. Type [ALT]-[F2]
   b. Type [CONTROL]-[ALT]-[DEL]
   c. Type [CONTROL]-[BACKSPACE]
   d. Use the "PageUp" key.
   e. Use the "UpArrow" key.

7. What appears on your screen after this **bash** shell command line?
   **echo xx >z ; ls z > wc**
   a. **1 1 3**
   b. no output
   c. **3**
   d. **1 1 2**
   e. **2**

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

9. In an empty directory, how many words are in file **cow** after this **bash** shell command line? **touch dog dog cat ; ls >cow**
   a. no output (empty file)
   b. **2**
   c. **3**
   d. **1**
   e. **4**

10. What is in file **cow** after running this **bash** shell command line?
    **echo one two >cow three**
    a. no output (empty file)
    b. **echo one two**
    c. **one two cow three**
    d. **one two**
    e. **one two three**

11. What command can you use to remove a directory that isn't empty?
    a. **rmdir -r dir**
    b. **rm -r dir**
    c. **del -r dir**
    d. **mv -r dir**
    e. **deldir -r dir**

12. Which command below removes *only* this four-character file name containing a special character (and no others): **`xyz?`**
    a. **`rm xyz\\?`**
    b. **`rm xyz\?`**
    c. **`rm xyz//?`**
    d. **`rm -r xyz?`**
    e. **`rm xyz/?`**

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

14. 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 of this command:
    **`sort nine nine | tail -4 | head -1`**
    a. **`6 6`**
    b. **`4 4`**
    c. **`6`**
    d. **`1 1`**
    e. **`8`**

15. Which of the following is true, given this long directory listing from **`ls`**:
    **`drwxr-x--x 123 ian user 456 May 30 12:35 dir`**
    a. The number 456 is the size of this directory.
    b. The number 123 is the octal permissions of this directory.
    c. The number 123 is the inode number of this directory.
    d. The number 456 is the count of links (names) this directory has.
    e. The number 123 is the size of this directory.

16. Which command below removes *only* this four-character file name containing a special character (and no others): **`?abc`**
    a. **`rm ''?abc''`**
    b. **`rm /?abc`**
    c. **`rm ""?abc""`**
    d. **`rm -r ?abc`**
    e. **`rm "?abc"`**





17. If directory **`foo`** contains only these four three-character file names: **`.x1`**, **`.x2`**, **`.z3`**, **`.z.`**, then what is the output of the following **`bash`** shell command line: **`echo foo/???`**
    a. no output
    b. **`foo/.x1 foo/.x2 foo/.z3 foo/.z.`**
    c. **`foo/.x1 foo/.x2 foo/.z3`**
    d. **`foo/???`**
    e. **`foo/.z.`**

18. How many arguments does the shell pass to this **`echo`** command:
    **`echo " 1 2 "three ' 4 ' five"6"`**
    a. Three arguments.
    b. Four arguments.
    c. One argument.
    d. Nine arguments.
    e. Five arguments.

19. In an empty directory, what appears on your screen after this **`bash`** command line? **`ls out 2>/dev/null`**
    a. **`/dev/null not found`**
    b. **`out`**
    c. **`out not found`**
    d. **`out 2 not found`**
    e. no output

20. Which command line lists all possible utilities available for sorting files?
    a. **`man sort`**
    b. **`grep /etc/passwd sort`**
    c. **`grep sort /etc/passwd`**
    d. **`man -k sort`**
    e. **`man | grep sort`**

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

22. In the output of the command **`ls -a`**, a dot that begins a name signifies what?
    a. The current directory.
    b. A current file.
    c. A name with an unprintable character.
    d. A name that is hidden.
    e. The parent directory.

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

24. Which of these command sequences will make file **out** contain all of the content of file **in1** followed by all of the content of file **in2**?
    a. **cat in1 in2 >out**
    b. **cp in1 in2 >out**
    c. **mv in1 in2 >out**
    d. **cp in1 >out in2 >out**
    e. **echo in1 in2 >out**

25. How many command arguments does the shell pass to this **echo** command:
    **echo 'It's a bird! No! It's a plane!'**
    a. One argument.
    b. Three arguments.
    c. Two arguments.
    d. Four arguments.
    e. Five arguments.

26. What is the correct syntax to redirect both standard output and standard error into the same output file?
    a. **command 2>&1 >out**
    b. **command >out 2>1**
    c. **command 2>1 >out**
    d. **command >out 2>&1**
    e. **command >out 2>out**

27. If you type the command **sort verybigfile >out** which of the following key sequences will interrupt it and take you immediately back to the command prompt?
    a. **[CTRL-R]**
    b. **[CTRL-C]**
    c. **[CTRL-L]**
    d. **[CTRL-D]**
    e. **[CTRL-U]**

28. What text is output by this **bash** shell command sequence:
    **echo dog >out ; echo cat | sort out**
    a. **dog** followed by **cat**
    b. **out**
    c. **cat** followed by **dog**
    d. **dog**
    e. **cat**





29. If file **a** contains twenty lines, and file **b** contains thirty lines, then how many lines are in file **out** after this sequence of **bash** shell commands:
    **cat a b >c ; head c >c ; sort a b c >out**
    a. **60**
    b. no lines (empty file)
    c. **100**
    d. **50**
    e. **30**

30. Which of the command lines below can generate a non-empty file?
    a. **head -5 file >file**
    b. **tail -3 file >file**
    c. **wc -wc file >file**
    d. **sort -r file >file**
    e. **cat file file file >file**

31. In an empty directory, what is in file **out** after this **bash** command line?
    **ls nosuchfile | wc -l >out**
    a. **10**
    b. no output (empty file)
    c. **0**
    d. **1**
    e. **11**

32. If file **twenty** contains twenty lines, and file **thirty** contains thirty lines, then how many lines are output by this command:
    **tail thirty | cat twenty**
    a. **20**
    b. **21**
    c. **30**
    d. **50**
    e. no lines (no output)

33. Which command line below does not show any lines from inside the file **dog**?
    a. **less dog**
    b. **ls dog**
    c. **sort -r dog**
    d. **head -3 dog**
    e. **tail -8 dog**

34. How can you ask the **bash** (Linux) shell to complete commands or file names for you?
    a. Type **[CONTROL]-[C]** and the shell will present a menu of commands.
    b. Type **[CONTROL]-[D]** and the shell will present a menu of commands.
    c. Push key **F1** and the system will present a menu of commands.
    d. You can type the first part of the command or file name and press the **ALT** key.
    e. You can type the first part of the command or file name and press the **TAB** key.

35. Which command below is the best way to find a line containing a question mark (**?**) in the file **/etc/passwd**?
    a. **grep ? >/etc/passwd**
    b. **grep ./? /etc/passwd**
    c. **grep '?' /etc/passwd**
    d. **grep /etc/passwd ./?**
    e. **grep ? /etc/passwd**

36. If you type the command **head**
    which of the following key sequences will send an EOF and take you immediately back to the command prompt?
    a. **[CTRL-D]**
    b. **[CTRL-L]**
    c. **[CTRL-C]**
    d. **[CTRL-U]**
    e. **[CTRL-R]**

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

38. In an empty directory, how many arguments are passed to the **cat** command in this **bash** command line?

```
date >a1 ; touch a2 ba ca ; cat a*
```

    a. **2**
    b. **3**
    c. none
    d. **1**
    e. **4**





39. If I am in my home directory named **/home/alleni** and **empty** is an empty sub-directory, what is true after this command line:

```
date >./cat ; mv empty/../cat ../alleni/dog
```

    a. the command fails because the path **empty/../cat** does not exist
    b. the directory **empty** now contains only a file named **dog**
    c. the directory **empty/..** now has a file named **dog** in it
    d. there is a second copy of the file **cat** in the file named **dog**
    e. the command fails because the path **../alleni/dog** does not exist

40. Which command sequence below outputs only lines 11-15 of the 99-line file named **cat**?
    a. **head -10 cat | tail -15 cat**
    b. **head -15 cat | tail -5**
    c. **head -15 cat | tail -5 cat**
    d. **tail -15 cat | head -10**
    e. **tail -10 cat | head -15 cat**

41. How many lines are in the file **out** after this command sequence:

```
echo hi >x ; echo ho >>x ; cat x x x >out
```

    a. **2**
    b. **1**
    c. nothing - empty file - no data
    d. **6**
    e. **3**

42. What is the output of this shell command line in an empty directory?

```
ls *
```

    a. *****
    b. **. ..**
    c. no output
    d. an error message from **ls** saying ***** does not exist
    e. **.**

# Answer Key - DAT 2330 – Ian Allen – Fall 2003 - DAT 2330 Test #1 - Unix - 15%

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

1. e
2. a
3. d
4. c
5. c
6. e
7. b
8. e
9. c
10. e
11. b
12. b
13. e
14. e
15. a
16. e
17. d
18. a
19. e
20. d
21. d
22. d
23. e
24. a
25. e
26. d
27. b
28. d
29. d
30. c
31. c
32. a
33. b
34. e
35. c
36. a
37. d
38. a
39. c
40. b
41. d
42. d

Count of a: 7 17%
Count of b: 6 14%
Count of c: 7 17%
Count of d: 11 26%
Count of e: 11 26%

With 5 choices: 42
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

Macro .cmd splits: 17
Macro .ans splits: 0