DAT 2330 – Ian Allen – Spring 2003 – 1-

45 minutes

**Evaluation: 49 Questions** Name:

### **Important Instructions**

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

## **Multiple Choice - 49 Questions**

(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. What do you do on Floppix/Linux/Unix to erase an entire line of typing?
- † a. type [CTRL-U]
  - b. type [CTRL-D]
  - c. type [CTRL-W]
  - d. select the line with the mouse and use the **DEL** key
  - e. select the line with the mouse and use the BACKSPACE key
- What can you do to get back (redo) the last command you typed to the bash (Linux) shell?
- † **a**. Use the "UpArrow" key.
  - b. Use the "PageUp" key.
  - c. Type [ALT]-[F2]
  - d. Type [CONTROL]-[ALT]-[DEL]
  - e. Type [CONTROL]-[BACKSPACE]
- 3. Which of these statements is true?
  - † a. Unix commands must be entered in lower-case letters.
    - b. Unix commands can be entered in upper-case or lower-case letters; they are equivalent.
    - c. You can only login to Unix once per userid; you cannot be logged in to the same machine twice.
    - d. To erase an entire line of typing, type [CONTROL]-[E].
    - e. To indicate End-of-File (no more input), type [CONTROL]-[E].
- 4. Which of these statements is true?
  - † a. To indicate End-of-File (no more input) to a program, type [CONTROL]-[D].
    - b. To erase an entire line of typing, type [ALT]-[DELETE].
    - c. To interrupt a Unix process from the keyboard, type [CONTROL]-[D].
    - d. To telnet to ACADAIX from outside the College, use the name acadaix.algonquin.
    - e. The **file** command creates a new, empty file in the current directory

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5. How many arguments and options are there to the command:

### cal -jy 2001

- † a. Two command line arguments, one of which contains two options.
  - b. Two arguments, one of which is a single option and the other is a pathname.
  - c. A single numeric option and a three-letter file name.
  - d. Two arguments, no options.
  - e. Two options, no arguments.
- 6. How many arguments and options are there to the command:

#### ls -al /etc

- † a. Two command line arguments, one of which contains two options.
  - b. Two arguments, one of which is a single option and the other is a pathname.
  - c. A three-letter file name and an /etc switch option.
  - d. Two arguments, no options.
  - e. Two options, no arguments.
- 7. How can you ask the **bash** (Linux) shell to complete commands or file names
  - † a. You can type the first part of the command or file name and press the TAB
    - b. You can type the first part of the command or file name and press the **ALT**
    - c. Type [CONTROL] [ALT] [DEL] and the shell will present a menu of commands.
    - d. Type [CONTROL] [D] and the shell will present a menu of commands.
    - e. Type [ALT]-[F2] the shell will present a menu of commands.
- 8. What Unix command line will show you all of the processes currently running, for all userids?
  - † a. ps aux
    - b. ps all
    - c. whereis ps
    - d. which ps
    - e. finger ps
- 9. What does the Floppix mail command take as a command line argument?
  - † a. a userid
    - b. a file name to send by email
    - c. a date
    - d. a message number
    - e. the Floppix mail command does not accept any arguments

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- 10. What is true when you use the **telnet** program to start a session to a remote computer?
  - † a. all of your work is done on the remote system
    - b. your work is done on the local system and copied to the remote system
    - c. files are created and destroyed on the local system
    - d. commands are executed on the local system
    - e. your local computer acts as a server for the remote computer
- 11. Which of these statements about the **telnet** terminal emulator is true?
  - † a. you can use telnet to connect from your Unix system back to your own Unix system
    - b. you can only use **telnet** to connect to a different computer
    - c. you can only use telnet to connect to machines on the local network
    - d. **telnet** doesn't require you to log in to the remote computer
    - e. you must give a computer name, not a number, as an argument to telnet
- 12. What ftp userid do you use to download software using "anonymous ftp"?
- † a. anonymous
  - b. download
  - c. use your Algonquin userid
  - d. public
  - e. software
- 13. When using the **links** text-only web browser on Linux, what command letter lets you type in a URL to go to?
- † a. g
  - b. q
  - c. s
  - d. a
  - e. **d**
- 14. What is the Unix user name for the Super-User account?
- † a. root
  - b. superuser
  - c. master
  - d. administrator
  - e. alterego
- 15. Which command line below does not show any lines from inside the file **dog**?
- † a. ls dog
  - b. head dog
  - c. tail dog
  - d. more dog
  - e. less dog

- 16. Which command line displays the contents of the Unix **passwd** file one page at a time?
- † a. more /etc/passwd
  - b. /etc/passwd >more
  - c. cat /etc/passwd >more

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- d. more | /etc/passwd
- e. /etc/passwd | more
- 17. What would you type to find the string tony in the file /etc/passwd?
- † a. grep tony /etc/passwd
  - b. grep /etc/passwd tony
  - c. grep tony >/etc/passwd
  - d. file tony /etc/passwd
  - e. file /etc/passwd tony
- 18. What does the **-v** option to the **grep** command do?
- † a. selects lines that do not contain a match for the supplied pattern
  - b. selects lines that do not contain unprintable characters
  - c. turns off the translation of unprintable characters
  - d. turns on the translation of unprintable characters
  - e. prints the version number of the grep command
- 19. Which command removes adjacent duplicate lines from a file?
- † a. uniq
  - b. unique
  - c. dup
  - d. dupl
  - e. duplicate
- 20. If /foo/bar were a file of text containing ten different lines, what would be the output of this exact command line: diff /foo/bar /foo/bar
  - † a. no output
    - b. an error message because **diff** only allows one file name
    - c. an error message because diff doesn't allow the same file name twice
    - d. several lines, which are the lines that are different between the two files
    - e. the contents of file /foo/bar would be displayed twice
- 21. What minimal permissions must you have on a directory to be able to execute successfully the command **ls** . from inside the directory?
  - † a. r-x
    - b. --x
    - c. r--
    - d. -wx
    - e. rw-

- 22. When doing an **ls** -a, the output pathname that is a double dot (..) signifies what?
- † **a**. The parent directory.
  - b. A file or directory with double links.
  - c. A hidden file.
  - d. The current directory.
  - e. The root directory.
- 23. What would you see if you typed this command: cat /users
  - † a. The contents of the file users located in the root directory
    - b. The contents of the file **users** located in your home directory
    - c. The contents of the file **users** located in the parent directory
    - d. The contents of your subdirectory named users
    - e. The contents of your directory named users
- 24. What command can you use to remove a directory that isn't empty?
  - † a. rm -r dir
    - b. del -r dir
    - c. rmdir -r dir
    - d. deldir -r dir
    - e. mv -r dir
- 25. If I have a directory owned by me named /a/b/c/d, which of the following actions would increase its *link count* by exactly one?
  - † a. create one subdirectory named /a/b/c/d/e
    - b. create one subdirectory named /a/b/c/d
    - c. create one subdirectory named /a/b/c/d2
    - d. create one file named /a/b/c/d/e
    - e. create one file named /a/b/c/d2
- 26. Which of these statements is true?
- † a. To make a hard link to file "foo" named "bar", file "foo" must exist.
  - b. You can make a hard link to a directory.
  - c. You only need "r--" permission on directory "foo" for "ls -l foo" to work.
  - d. If you give me write permission on a file owned by you, I can then use **chmod** to change its permissions.
  - e. The "ln" command takes two arguments, so the maximum number of hard links a file can have is two.

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27. Which of the following is true, given this long directory listing:

drwxr-x--x 71 ian user 4096 May 30 12:35
/dirname

- † **a**. The number 71 is the count of links (names) this directory has.
  - b. The number 71 is the inode number of this directory.
  - c. The number 71 is the size of this directory.
  - d. The number 4096 is the count of links (names) this directory has.
  - e. The number 4096 is the inode number of this directory.
- 28. If file /a/b contains ninety-nine lines, each of which is the two-digit line number of the line in the file (01 through 99), what is the output of this command: sort /a/b /a/b | tail -4 | head -1
- † a. 98
  - b. **96**
  - c. 96 96
  - d. **04 04**
  - e. **01 01**
- 29. Given an existing file of yours named /a/b/x, what is the output of this sequence of three shell commands:

echo hi 
$$>/a/b/x$$
; wc  $/a/b/x >/a/b/x$ ; cat  $/a/b/x$ 

- $\dagger$  a. 0 0 0 /a/b/x
- b. 1 1 3 /a/b/x
- c. 1 1 2 /a/b/x
- d. 1 1 1 /a/b/x
- e. no output
- 30. Which of the following statements is true about this shell command line:

$$cat  $/a/b/d$$$

- † a. The command cat sees only one argument.
  - b. The command cat sees two arguments.
  - c. The command /a/b/c sees only one argument
  - d. The command /a/b/c sees two arguments.
  - e. The command is always invalid.
- 31. Which of the command lines below can generate a non-empty file?
- $\dagger$  a. ls -i /a/b >/a/b
  - b. sort -r /a/b >/a/b
  - c. tail -5 /a/b >/a/b
  - d. tr abc ABC </a/b >/a/b
  - e. grep v /a/b /a/b >/a/b

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32. If file /a contains thirty lines, and file /b contains fifty lines, then how many lines are in file /c after this sequence of shell commands:

cat /a /b >/c; sort /c >/c; sort /c /a /b >/c

- † a. 80
  - b. 30
  - c. 50
  - d. 160
  - e. no lines (empty file)
- 33. If file /a contains thirty lines, and file /b contains fifty lines, then how many lines are output by this command: cat /a | sort /b
- † a. 50
  - b. 30
  - c. 80
  - d. **20**
  - e. no lines (empty file)
- 34. Which of the following shell command lines displays only the names in the current directory that are exactly three alphabetic letters long?
  - $\dagger$  a. echo [a-zA-Z][a-zA-Z][a-zA-Z]
    - b. echo [0-3][0-3][0-3]
    - c. echo [?][?][?]
    - d. echo ???
    - e. echo \*\*\*
- 35. If directory /a contains these seven two-character file names: aa, ab, ac, ad, a?, a\*, a., then which shell command below will remove only the single name a? from the directory?
  - † a. rm /a/a\?
    - b. rm /a/a?
    - c. rm /a/a\*
    - d. rm /a/a[\*]
    - e. rm /a?
- 36. If directory /a/b contains these four three-character file names: .aa, .ab, .a?, .a\*, then what is the output of the following bash shell command line: echo /a/b/???
  - † a. /a/b/???
    - b. /a/b/.aa /a/b/.ab /a/b/.a? /a/b/.a\*
    - c. /a/b/.aa /a/b/.ab
    - d. /a/b/.a?
    - e. no output

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- 37. Which of the command lines below can generate a non-empty file?
- $\dagger$  a. wc -1 /a/b >/a/b
  - b. sort /a/b >/a/b
  - c. head -5 /a/b >/a/b
  - d. tr abcd 1234 </a/b >/a/b
  - e. diff /a/b /a/b >/a/b
- 38. What is the **bash** shell output of this two command sequence:

PATH=/dev/null:/bin/ls:/bin/cat; ls nosuchfile

- † a. bash: ls: command not found
  - b. ls: /bin/ls: command not found
  - c. bash: /bin/cat: command not found
  - d. bash: /dev/null: No such file or directory
  - e. ls: nosuchfile: No such file or directory
- 39. Which of the following **bash** PATH statements makes the most sense?
- † a. PATH=/etc:/usr/bin:/bin
  - b. PATH=/bin:/usr/bin:/etc/passwd
  - c. PATH=/bin/ls:/etc:/usr/bin
  - d. PATH=/bin:/bin/ls:/etc/motd:/usr/bin
  - e. PATH=/bin/sh:/usr/bin:/etc
- 40. Which of these statements is true?
  - † a. If /a is an empty directory, cat /a/\* produces an error message.
    - b. If /a is an empty directory, echo /a/\* produces an error message.
    - c. Typing ./script and sh script always give identical results.
    - d. The cat command looks up a command line file name argument (cat filename) in your \$PATH.
    - e. Shell glob (wildcard) patterns are expanded before shell variables are expanded.
- 41. Which command line below will place a list of all online users in a file **on-users** and place a sorted version of the same list in a file **sorted-users**?
- † a. who | tee on-users | sort >sorted-users
  - b. who | tee on-users | sort sorted-users
  - c. who | tee >on-users | sort >sorted-users
  - d. who | sort sorted-users | tee on-users
  - e. who | sort >sorted-users | tee on-users
- 42. What would you type to change the permissions on a file to **rw-r--r-**?
  - † a. chmod 644 file
    - b. chmod 211 file
    - c. chmod 344 file
    - d. chmod 311 file
    - e. chmod 244 file

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- 43. Given my directory /a/b and my file /a/b/c owned by me, which permissions allow me to change or create new content (data) in the file /a/b/c but not delete the file?
  - † a. Permissions 100 on directory /a/b and 200 on file /a/b/c.
    - b. Permissions 100 on directory /a/b and 100 on file /a/b/c.
    - c. Permissions 200 on directory /a/b and 200 on file /a/b/c.
    - d. Permissions 400 on directory /a/b and 400 on file /a/b/c.
    - e. Permissions 600 on directory /a/b and 700 on file /a/b/c.
- 44. Which of these statements is true?
  - † a. If /a is an empty directory, cat /a/\* produces an error message.
    - b. If /a is an empty directory, echo /a/\* produces an error message.
    - c. Typing ./script and sh script always give identical results.
    - d. The cat command looks up a command line file name argument (cat filename) in your \$PATH.
    - e. Shell glob (wildcard) patterns are expanded before shell variables are expanded.
- 45. Given my directory /a/b and my file /a/b/c owned by me, which permissions allow me to delete the file /a/b/c from the directory, but not change the content (data) in the file?
  - † a. Permissions 300 on directory /a/b and 500 on file /a/b/c.
    - b. Permissions 100 on directory /a/b and 200 on file /a/b/c.
    - c. Permissions 100 on directory /a/b and 100 on file /a/b/c.
    - d. Permissions 300 on directory /a/b and 300 on file /a/b/c.
    - e. Permissions 500 on directory /a/b and 400 on file /a/b/c.
- 46. Which of the following **bash PATH** statements makes the most sense?
  - † a. PATH=/etc/.:/usr/bin:/bin
    - b. PATH=/bin:/usr/bin:/etc/passwd
    - c. PATH=/etc:/usr/bin:/bin/ls
    - d. PATH=/bin:/usr/bin:/etc/motd
    - e. PATH=/usr/bin:/etc:/bin/cat
- 47. If /a/b were a readable empty file, what would be the bash shell output of this two command sequence:

PATH=/etc/passwd:/bin/ls:/bin/cat; /bin/cat/a/b

- † a. no output
  - b. /bin/cat: /a/b: No such file or directory
  - c. bash: /bin/cat: command not found
  - d. bash: cat: command not found
  - e. bash: ls: command not found

48. Which command line below will place the output of script ./myscript into a file named party and place a word count of the same output in a file named wc?

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† a. ./myscript | tee party | >wc wc
b. ./myscript | tee party | wc wc
c. ./myscript | cat >party | wc >wc
d. ./myscript >wc wc | tee party
e. ./myscript | cat >party | wc >wc
```

- 49. Which of these statements is true?
  - † a. Shell glob (wildcard) patterns are expanded after shell variables are expanded.
    - b. If /x is an empty directory, ls /x/.\* produces an error message.
    - c. If /y is an empty directory, echo /y/.\* produces an error message.
    - d. Typing ./script and sh script always give identical results.
    - e. The ls command looks up a command line argument (ls dir) in your SPATH.

# Answer Key - DAT 2330 - Ian Allen - Spring 2003 - DAT 2330 **Practice Test - 0%**

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 46 47 48 49

1. a 2. a 3. a 4. a 5. a 6. a 7. a 8. a 9. a 10. a 11. a 12. a 13. a 14. a 15. a 16. a

- 41. a 42. a 43. a 44. a 45. a 46. a 47. a 48. a 49. a
- Count of a: 49 100%
- With 5 choices: 49 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 46 47 48 49
- Macro .cmd splits: 8 Macro .ans splits: 0

20. a 21. a 22. a 23. a 24. a 25. a 26. a 27. a 28. a

17. a 18. a

19. 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