Evaluation: 42 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.

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Multiple Choice - 42 Questions - 10 of 20%

(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)

1. Which command sequence correctly searches for **str** and then prints **OK** if it is found inside the file **foo** ?
    † **a. if grep <foo str ; then echo OK ; fi**
    b. **if [grep str foo] ; then echo OK ; fi**
    c. **if test str foo ; then echo OK ; fi**
    d. **if test str = foo ; then echo OK ; fi**
    e. **if [test str foo] ; then echo OK ; fi**

2. Which command sequence correctly compares the numbers and prints **OK** ?
    † **a. if [1 -lt 2] ; then echo OK ; fi**
    b. **if [2 > 1] ; then echo OK ; fi**
    c. **if [! 2 < 1] ; then echo OK ; fi**
    d. **if (let 2 > 1) ; then echo OK ; fi**
    e. **if (1 let 2) ; then echo OK ; fi**

3. If **a=1** and **b=1** , which command sequence correctly compares the two numbers as equal and prints **OK** ?
    † **a. if test $b -eq $a ; then echo OK ; fi**
    b. **if [a -eq b] ; then echo OK ; fi**
    c. **if [b = a] ; then echo OK ; fi**
    d. **if test a == b ; then echo OK ; fi**
    e. **if [$a==$b] ; then echo OK ; fi**

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

5. 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**

6. If **a=cow** and **b=dog** then what is the output on your screen of the following sequence of commands: **[$ a = d og -o $b = dog] ; echo $?**
    † **a. 0**
    b. **1**
    c. the number 1 or 0 followed by another 1 or 0 on a new line
    d. **test: $a: integer expression expected**
    e. no output

7. If **a=cow** and **b=dog** then what is the output on your screen of the following sequence of commands: **[$ a = c ow -a $b = dog] ; echo $?**
    † **a. 0**
    b. **1**
    c. the number 1 or 0 followed by another 1 or 0 on a new line
    d. **test: $a: integer expression expected**
    e. no output

8. If **x=one** and **y=two** then what is the output on your screen of the following sequence of **bash** commands: **if $x = $y ; then echo $a ; fi**
    † **a. bash: one: command not found**
    b. **test: one: integer expression expected**
    c. **test: $x: integer expression expected**
    d. **one**
    e. no output

9. 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**

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

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

12. What is the output on your screen of the following sequence of commands:
    `x=pig ; y=bat ; touch $x ; [ -z $x ] ; 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

13. What is the output on your screen of the following sequence of commands:
    `x=1 ; y=2 ; [ $x -ge $y ] ; 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

14. What is the output on your screen of the following sequence of commands:
    `a=9 ; b=9 ; [ $a -le $b ] ; echo $?`
  † **a. `0`**
    b. **`1`**
    c. the number 1 or 0 followed by another 1 or 0 on a new line
    d. **`test: $a: integer expression expected`**
    e. no output

15. What is the output on your screen of the following sequence of commands:
    `x=0 ; [ $x ] ; echo $?`
  † **a. `0`**
    b. **`1`**
    c. the number 0 or 1 followed by another 0 or 1 on a new line
    d. **`test: $x: unary operator expected`**
    e. no output

16. What is the output on your screen of the following sequence of commands:
    `i=00 ; [ $i = 0 ] ; echo $?`
  † **a. `1`**
    b. **`0`**
    c. the number 0 or 1 followed by another 0 or 1 on a new line
    d. **`test: $i: integer expression expected`**
    e. no output

17. What is the output on your screen of the following sequence of commands:
    `x=ok ; y=ok ; [ x = y ]`
  † **a.** no output
    b. **`1`**
    c. **`0`**
    d. **`bash: x: command not found`**
    e. **`test: x: integer expression expected`**

18. What is the output on your screen of this command sequence:
    `echo pig >one ; echo bat | tail one`
  † **a. `pig`**
    b. **`bat`**
    c. **`pig`** followed by **`bat`**
    d. **`bat`** followed by **`pig`**
    e. an error message

19. If **`dog=dog`**   and **`cat=cat`**   then which of the following command lines
    outputs only the word **`hi`** (and nothing else)?
  † **a. `test dog = dog && echo hi`**
    b. **`test dog -ne cat && echo hi`**
    c. **`[!dog = cat] && echo hi`**
    d. **`[dog -ne cat] || echo hi`**
    e. **`[dog!=dog] || echo hi`**

20. A shell script named **`bar`**   is executed as follows:
    `./bar "a b" "c d e" f`
    Inside the script is the line: **`echo "$2"`**
    What is the output on your screen from this line?
  † **a. `c d e`**
    b. **`b`**
    c. **`b"`**
    d. **`$2`**
    e. **`a b`**

21. What is the output on your screen of this two-command sequence:
    `cd /etc || echo "cd $(pwd)"`
  † **a.** no output
    b. **`cd /etc`**
    c. **`cd 0pwd)`**
    d. **`cd $(pwd)`**
    e. **`/etc`**

22. What is the output on your screen of this two-command sequence:
      `cd /bin/ls && echo "in $(pwd)"`
   † a. `bash: cd: /bin/ls: Not a directory`
     b. `in /etc`
     c. `in 0pwd)`
     d. `in $(pwd)`
     e. no output

23. What is the output on your screen of this two-command sequence:
      `cd /bin && echo "cd $(pwd)"`
   † a. `cd /bin`
     b. `cd 0pwd)`
     c. `cd $(pwd)`
     d. `/bin`
     e. no output

24. In an empty directory, what is the length of the longest file name created by the following two-command sequence:
      `a="1234 123 12 1" ; touch '$a'`
   † a. 2 characters
     b. 3 characters
     c. 4 characters
     d. 1 character
     e. 13 characters

25. If `/bin/pig` is a program that outputs `xx` and `/usr/bin/pig` is a program that outputs `foo` what is the output on your screen of this shell command sequence: `PATH=/home:/bin:/dev:/usr/bin ; pig`
   † a. `xx`
     b. `foo`
     c. `foo` followed by `xx`
     d. `xx` followed by `foo`
     e. `bash: pig: command not found`

26. If a shell script named `foo` contains the line:
      `if [ '$3' = "$2" ] ; then echo SAME ; fi`
   then which of the following command lines will always produce `SAME` as output?
   † a. `./foo 2 '$3' 1`
     b. `./foo $1 '$2' $3`
     c. `./foo '$1' "$3" $2`
     d. `./foo $1 $2 $3`
     e. `./foo $3 "$2" $1`

27. What is the output on your screen of this sequence of three shell commands:
      `umask 457 ; mkdir dir ; ls -ld dir`
   † a. `d-wx-w---- 2 me me 128 Jan 9 9:34 dir`
     b. `d-w--w---- 2 me me 128 Jan 9 9:34 dir`
     c. `d-wx-w-rwx 2 me me 128 Jan 9 9:34 dir`
     d. `dr--r-xrwx 2 me me 128 Jan 9 9:34 dir`
     e. `dr-xr-xrwx 2 me me 128 Jan 9 9:34 dir`

28. What is the output on your screen of this two command sequence:
      `PATH=/bin/cat:/bin/sh:/bin/ls ; ls nosuchfile`
   † a. `bash: ls: command not found`
     b. `bash: /bin/ls: command not found`
     c. `ls: /bin/ls: command not found`
     d. `ls: nosuchfile: No such file or directory`
     e. `bash: /bin/sh: No such file or directory`

29. Which command sequence below always outputs just the date only if the first argument is both a directory and not empty?
   † a. `if [ -s "$1" -a -d "$1" ]; then date ; fi`
     b. `if [ "-s $1" && "-d $1" ]; then date ; fi`
     c. `if [ "$1" -eq -f -a "$1" -eq -d ]; then date ; fi`
     d. `if [ -s -a -d "$1" ]; then date ; fi`
     e. `if [ -n "$1" -o -d "$1" ]; then date ; fi`

30. What is the output on your screen of this command sequence:
      `true && echo Linux          Rocks $?`
   † a. `Linux Rocks 0`
     b. `Linux Rocks ?`
     c. `Linux      Rocks      ?`
     d. `Linux      Rocks      1`
     e. no output

31. What is the output on your screen of this command sequence:
      `false && echo "linux          rules $?"`
   † a. no output
     b. `linux rules 1`
     c. `linux      rules      0`
     d. `linux      rules      1`
     e. `linux rules 0`

32. Given the following command line: `read  one  two  three` which user keyboard input line below will assign the text `bb` to the shell variable named `two` ?
   † a. `aa  bb  cc`
     b. `one=aa  two=bb  three=cc`
     c. `aa,bb,cc`
     d. `aa:bb:cc`
     e. `aa;bb;cc`

33. If file **/a** contains 20 lines, and file **/b** contains 30 lines, then how many lines are in file **/c** after this sequence of shell commands:
    sort /a /b >/c ; cat /a >>/b ; sort /c /b /a >/c
 † a. **70**
   b. **50**
   c. **80**
   d. **120**
   e. no lines (empty file)

34. If directory **/dir** contains these three four-character file names: **.123** , **.124** , **.???** , then what is the output on your screen of the following command line: **echo /dir/????**
 † a. **/dir/????**
   b. **/dir/.123 /dir/.124 /dir/.???**
   c. **/dir/.123 /dir/.124**
   d. **echo: /dir/????: No such file or directory**
   e. no output

35. If directory **dir** contains only these five two-character file names: **a?** , **11** , **?1** , **1*** , **.1** , then which shell command below will remove *only* the single two-character name **?1** from the directory?
 † a. **rm dir/\??**
   b. **rm dir/?1**
   c. **rm dir/1***
   d. **rm dir/*1**
   e. **rm dir/??**

36. Which of these commands makes a file owned by me, also executable by me?
 † a. **chmod u+x ./myfile**
   b. **chmod x+u myfile**
   c. **chmod x=u ./myfile**
   d. **umask 777 myfile**
   e. **umask 111 myfile**

37. Which line below is most likely to be the beginning of an error message?
 † a. **echo 1>&2 "... "**
   b. **echo 1<&2 "... "**
   c. **echo 2>&1 "... "**
   d. **echo 2<$1 "... "**
   e. **echo 2>$1 "... "**

38. Which line below puts the count of the number of lines in the password file into the variable **foo** ?
 † a. **foo=$(wc -l </etc/passwd)**
   b. **foo=$(cat -c /etc/passwd)**
   c. **foo=$(wc /etc/passwd | awk echo $1)**
   d. **foo=$(wc -l /etc/passwd | awk "print $1")**
   e. **foo=$(awk -F: /etc/passwd | wc -l)**

39. In an empty directory, what is the output on your screen of this three-command sequence:
    touch za .z zb .w .1 ; f=".z* .w*" ; echo '$f'
 † a. **$f**
   b. **.z* .w***
   c. **.z .w**
   d. **za .z zb .w**
   e. **za zb .w***

40. Which line below passes three *separate* arguments to the **cat** command when placed inside a shell script named **foo** invoked by the command line:
    ./foo one two three
 † a. **cat "$@"**
   b. **cat "$*"**
   c. **cat "$#"**
   d. **cat "$1 $2 $3"**
   e. **cat "$? $? $?"**

41. What is the output on your screen of this sequence of three shell commands:
    echo ls >fil ; >fil ls fil ; wc fil
 † a. **1 1 4 f il**
   b. **1 1 3 f il**
   c. **1 1 2 f il**
   d. **0 0 0 f il**
   e. no output

42. 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 #2 - 20%

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

```
  1. a                          Count of a:      42   100%
  2. a
  3. a                          With 5 choices: 42
  4. a                            1 2 3 4 5 6 7 8 9 1   0 1 1
    5. a                          12 13 14 15 16 17 18 19
    6. a                          20 21 22 23 24 25 26 27
    7. a                          28 29 30 31 32 33 34 35
    8. a                          36 37 38 39 40 41 42
  9. a
 10. a                          Macro .cmd splits: 24
 11. a                          Macro .ans splits: 0
 12. a
   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
```