Evaluation: 57 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: 13 30 26 9 25 54 51 42 40 43 47 38 4 17 50 14 7 19 55 52 46 36 8 45 21 2 15 28 57 35 49 48 16 53 11 39 1 31 56 37 12 24 41 44 20 29 22 33 34 3 18 32 5 27 6 10 23)

1. If **a=1** and **b=2** then which of the following **bash** command lines outputs only the word **hi** (and nothing else)?
   a. **[!a = b] && echo hi**
   b. **[a!=a] || echo hi**
   c. **[a -ne b] && echo hi**
   d. **[a = a] && echo hi**
   e. **[a -ne b] || echo hi**

2. If **x=8** and **y=9** then which of the following **bash** command lines outputs only the word **foobar** (and nothing else)?
   a. **[x!=x] || echo foobar**
   b. **[!x = y] && echo foobar**
   c. **[x -ne y] || echo foobar**
   d. **[x = x] && echo foobar**
   e. **[x -ne y] && echo foobar**

3. If **foo** is a script containing the line **TERM=new ; export TERM**, what is the output of the following sequence of **bash** commands that use **foo**:
   TERM=bar ; ./foo ; echo $TERM
   a. **foo**
   b. **TERM**
   c. **$TERM**
   d. **new**
   e. **bar**

4. Which of the following shell command lines displays all the names in the current directory that are exactly three letters (alphabetic) long (and nothing else)?
   a. **echo ???**
   b. **echo [a-mn-zA-YZ][ab-zAB-YZ][za-yZA-Y]**
   c. **echo [azAZ][azAZ][azAZ]**
   d. **echo [a,zA,Z][a,zA,Z][a,zA,Z]**
   e. **echo [0-89][01-9][0-45-9]**

5. Which **bash** command sequence below always outputs just the word **OK** only if the first argument is either a file or a directory?
   a. **if ["$1" -eq -f -o "$1" -eq -d]; then echo OK;fi**
   b. **if [-f || -d "$1"]; then echo OK;fi**
   c. **if [-f -o -d "$1"]; then echo OK;fi**
   d. **if [-f "$1" -o -d "$1"]; then echo OK;fi**
   e. **if ["-f $1" || "-d $1"]; then echo OK;fi**

6. In an empty directory, how many files will be created using the following **bash** shell two-command sequence:
   x='12 3 4 5' ; touch $x
   a. 5 files
   b. 4 files
   c. 2 files
   d. 3 files
   e. 1 file

7. In an empty directory, what is the **bash** shell output of this three-command sequence:
   touch aa .a ab .b ac .c ; x='*a *b' ; echo $x
   a. ***a *b**
   b. **$x**
   c. **aa ab**
   d. **aa ab ac b***
   e. **a* b***

8. If file **foo** contains the line **x=123** then what is the **bash** output of this sequence of three commands:
   x=abc ; source foo ; echo "I see '$x' here."
   a. **I see $x here.**
   b. **I see '123' here.**
   c. **I see 'abc' here.**
   d. **I see '$x' here.**
   e. **"I see abc here."**

9. What is the **bash** shell output of this two-command sequence if run in a directory containing 9999 files with names that are all the numbers from **1** to **9999** inclusive: **x="*" ; echo $x**
   a. *****
   b. the file names **1** through **9999**
   c. **$x**
   d. an asterisk ('*****') and the file names **1** through **9999**
   e. all the file names that start with an asterisk ('*****')

10. What is the **bash** output of this sequence of two commands:
```
x=';' ; echo one $x date
```
a. **one ; date**
b. **one $x date**
c. **one** followed by **Mon Sep 30 08:00:00 EDT 2002** on a new line
d. **one ; Mon Sep 30 08:00:00 EDT 2002**
e. **one ';' date**

11. A shell script named **foo** is executed as follows:
```
./foo 1 "2 3 4" 5
```
Inside the script is the line: **echo "$2"**
What is the output from this line?
a. **2**
b. **"2**
c. **$2**
d. a bash error message: unbound (undefined) variable
e. **2 3 4**

12. What is the **bash** shell output of this two-command sequence if run in a directory containing 9999 files with names that are all the numbers from **1** to **9999** inclusive: **x="*" ; echo '$x'**
a. **$x**
b. *****
c. **'$x'**
d. the file names **1** through **9999**
e. the file names **1** through **9999**, surrounded by quotes

13. What is the output of the following sequence of **bash** commands:
```
false && echo "foo     bar $?"
```
a. **foo bar 1**
b. **foo bar 1**
c. **foo bar 0**
d. no output
e. **foo bar 0**

14. If **a=cow** and **b=dog** then what is the output of the following sequence of **bash** commands: **[$a = cow -a $b = cow] ; 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. Select the correct **bash** shell order of command line processing:
a. aliases, variables, redirection, globs
b. aliases, globs, variables, redirection
c. aliases, redirection, variables, globs
d. aliases, variables, globs, redirection
e. redirection, aliases, globs, variables

16. What is the output of the following sequence of **bash** commands:
```
a=1 ; b=2 ; test $a -ge $b ; echo $?
```
a. no output
b. the number 1 or 0 followed by another 1 or 0 on a new line
c. **1**
d. **test: $a: integer expression expected**
e. **0**

17. A shell script named **foo** is executed as follows:
```
./foo 1  "2  2  2"  '3  '
```
Inside the script is the line: **argv.sh $@**
What is the count of arguments that the **argv.sh** command will display?
a. **6**
b. **2**
c. **4**
d. **3**
e. **5**

18. If **a=cow** and **b=dog** then what is the output of the following sequence of **bash** commands: **if $a = $b ; then echo $a ; fi**
a. no output
b. **test: $a: integer expression expected**
c. **test: cow: integer expression expected**
d. **cow**
e. **bash: cow: command not found**

19. In an empty directory, how many files will be created using the following **bash** shell two-command sequence:
```
x='1  2  3  45' ; touch "$x"
```
a. 5 files
b. 2 files
c. 4 files
d. 1 file
e. 3 files

20. In an empty directory, what is the **bash** shell output of this three-command sequence:
```
touch aa .a ab .b ac .c ; x='a* b*' ; echo "$x"
```
a. **$x**
b. **a* b***
c. **aa ab ac b***
d. **aa ab**
e. ***a *b**

21. A shell script named **foo** is executed as follows:
```
./foo 1 "2 3 4" 5
```
Inside the script is the line: **argv.sh "$@"**
What is the count of arguments that the **argv.sh** command will display?
a. **4**
b. **5**
c. **3**
d. **1**
e. **2**

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

23. What is the output of the following sequence of **bash** commands:
```
echo hi >wc ; wc wc >hi ; cat hi
```
a. **hi**
b. **1 1 3 wc**
c. no output
d. **1 1 2 wc**
e. **0 0 0 wc**

24. A shell script named **foo** is executed as follows:
```
./foo a b "c d e"
```
Inside the script is the line: **argv.sh "$*"**
What is the count of arguments that the **argv.sh** command will display?
a. **5**
b. **1**
c. **2**
d. **3**
e. **4**

25. Which **bash** command sequence correctly compares the two numbers and prints **OK**?
a. **if [4 > 3] ; then echo OK ; fi**
b. **if [4 -gt 3] ; then echo OK ; fi**
c. **if (let 4 > 3) ; then echo OK ; fi**
d. **if (! 4 < 3) ; then echo OK ; fi**
e. **if [! 4 <= 3] ; then echo OK ; fi**

26. What is the output of the following sequence of **bash** commands:
```
cd /etc && echo "in $(pwd)"
```
a. **in $(pwd)**
b. **in /etc**
c. **bash: cd: /etc: No such file or directory**
d. no output
e. **in 0pwd)**

27. What is the output of the following sequence of **bash** commands:
```
a=cow ; b=dog ; test -z $a ; echo $?
```
a. **1**
b. **0**
c. **test: $a: integer expression expected**
d. no output
e. the number 1 or 0 followed by another 1 or 0 on a new line

28. Which line below puts the count of the number of lines in the password file into the variable **foo**?
a. **foo=[wc /etc/passwd | echo $1]**
b. **foo=[cat -l /etc/passwd]**
c. **foo=[grep -c /etc/passwd]**
d. **foo=$(cat -c /etc/passwd)**
e. **foo=$(wc -l </etc/passwd)**

29. If these two lines are put in an executable script named **foo**:
```
#!/bin/cp bar
echo hi
```
What is the result of the command line: **./foo**
a. The file **./foo** is copied to the file **bar**
b. The file **bar** is copied to the file **./foo**
c. The word "hi" appears on the screen
d. The file **bar** appears on the screen followed by the word "hi"
e. The **cp** command displays an error message about a missing argument

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

31. What is the **bash** shell output of this two-command sequence:
```
cd /home/alleni && echo "In $(pwd)"
```
a. **"In $(pwd)"**
b. **In $(pwd)**
c. **In /home/alleni**
d. **In 0pwd)**
e. no output

32. What is the **bash** shell output of this command sequence:
```
true && echo Hello     There $?
```
a. **Hello   There 1**
b. no output
c. **Hello There ?**
d. **Hello   There ?**
e. **Hello There 0**

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

34. In an empty directory, what is the **bash** shell output of this three-command sequence:
```
touch aa .a ab .b .c ; x='.a* .b*' ; echo '$x'
```
a. **'.a* .b*'**
b. **.a .b**
c. **.a* .b***
d. **aa .a ab .b**
e. **$x**

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

36. What is the **bash** shell output of this two-command sequence if run in a directory containing 9999 files with names that are all the numbers from **1** to **9999** inclusive: **x="*" ; echo "$x"**
a. **"$x"**
b. the file names **1** through **9999**, surrounded by quotes
c. the file names **1** through **9999**
d. **$x**
e. *

37. If **bar** is an executable script containing the line **foo=dog** then what is the **bash** output of this sequence of three commands:
```
foo=cat ; ./bar ; echo "the '$foo' ate"
```
a. **the 'cat' ate**
b. **the 'dog' ate**
c. **the $foo ate**
d. **the '$foo' ate**
e. **the 'foo' ate**

38. What is the output of the following sequence of **bash** commands:
```
echo wc >wc ; wc wc >wc ; cat wc
```
a. **1 1 2 wc**
b. **1 1 3 wc**
c. **wc**
d. no output
e. **0 0 0 wc**

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

40. Given the following **bash** shell command line: **read a b c**, which user keyboard input line below will assign the text **b** to the shell variable named **b**?
a. **a:b:c**
b. **a,b,c**
c. **a;b;c**
d. **a b c**
e. **a=a b=b c=c**

41. What is the output of the following sequence of **bash** commands:
```
wc='one two' ; test wc = wc
```
a. **test: too many arguments**
b. **1**
c. **1 2 8 wc**
d. no output
e. **0**

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

43. Which **bash** command line below allows programs in the current directory to execute without preceding the names with **./**?
a. **PATH=/bin:$HOME:.**
b. **$PATH=.:$HOME:/bin**
c. **$PATH=/bin:./$HOME**
d. **PATH = /bin:$HOME:.**
e. **PATH = ./$HOME:/bin**

44. What is the **bash** output of this command sequence:
```
false && echo "Hello     There"
```
a. **Hello There**
b. **"Hello There"**
c. **HelloThere**
d. **Hello There**
e. no output

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

46. If **foo** is a script containing the line **TERM=vt100 ; export TERM**, what is the output of the following sequence of **bash** commands:
```
TERM=linux ; ./foo ; echo $TERM
```
a. **$TERM**
b. **linux**
c. **vt100**
d. **foo**
e. **TERM**

47. If **x=5** and **y=5**, which **bash** command sequence correctly compares the two numbers as equal and prints **OK**?
a. **if (x == y) ; then echo OK ; fi**
b. **if test $x -eq $y ; then echo OK ; fi**
c. **if [$x==$y] ; then echo OK ; fi**
d. **if test x -eq y ; then echo OK ; fi**
e. **if [x = y] ; then echo OK ; fi**

48. A shell script named **bar** is executed as follows:
```
./bar a  "b c"  'a  '
```
Inside the script is the line: **argv.sh $@**
What is the count of arguments that the **argv.sh** command will display?
a. **2**
b. **3**
c. **4**
d. **6**
e. **5**

49. If variable **bar** might contain nothing (a null value - defined but empty), which **bash** command sequence correctly tests for this and prints **YO**?
a. **if [''$bar'' = ''''] ; then echo YO ; fi**
b. **if ["$bar" = ""] ; then echo YO ; fi**
c. **if [$bar -eq :] ; then echo YO ; fi**
d. **if ["$bar" = *] ; then echo YO ; fi**
e. **if [$bar -eq ""] ; then echo YO ; fi**

50. In an empty directory, how many files will be created using the following **bash** shell two-command sequence:
```
x="one 'two two'two three four" ; touch $x
```
a. 3 files
b. 1 file
c. 4 files
d. 2 files
e. 5 files

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

52. Which **bash** command sequence correctly searches for the string **foobar** and then prints **YES** if it is found inside the group file?
    a. **if test foobar /etc/group ; then echo YES ; fi**
    b. **if test foobar = /etc/group ; then echo YES ; fi**
    c. **if grep foobar /etc/group ; then echo YES ; fi**
    d. **if [test foobar /etc/group] ; then echo YES ; fi**
    e. **if [grep foobar /etc/group] ; then echo YES ; fi**

53. How many arguments are passed to the command by the shell on this command line: **<bar bar -b "-a" '-r' >bar bar bar**
    a. **2**
    b. **5**
    c. **3**
    d. **4**
    e. **6**

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

55. A shell script named **foo** is executed as follows:
    ./foo 1 "2 3 4" '5 '
    Inside the script is the line: **argv.sh "$@"**
    What is the count of arguments that the **argv.sh** command will display?
    a. **5**
    b. **6**
    c. **3**
    d. **2**
    e. **4**

56. Which of these first lines will cause this executable file to be interpreted using the Bash shell?
    a. **#/bin/bash**
    b. **!/bin/bash**
    c. **/bin/bash -u**
    d. **#!/bin/bash**
    e. **!#/bin/bash -u**

57. Which **bash** command sequence correctly searches for the **string** and then prints **OK** if it is found inside the password file?
    a. **if [test string /etc/passwd] ; then echo OK ; fi**
    b. **if test string /etc/passwd ; then echo OK ; fi**
    c. **if test string = /etc/passwd ; then echo OK ; fi**
    d. **if grep string /etc/passwd ; then echo OK ; fi**
    e. **if [grep string /etc/passwd] ; then echo OK ; fi**

Answer Key - DAT 2330 – Ian Allen – Winter 2003 - DAT 2330 Test #3 - Practice Unix Final - 0%

Office use only: 13 30 26 9 25 54 51 42 40 43 47 38 4 17 50 14 7 19 55 52 46 36 8 45 21 2 15 28 57 35 49 48 16 53 11 39 1 31 56 37 12 24 41 44 20 29 22 33 34 3 18 32 5 27 6 10 23

1. d
2. d
3. e
4. b
5. d
6. b
7. c
8. b
9. b
10. a
11. e
12. a
13. d
14. b
15. c
16. c
17. e
18. e
19. d
20. b
21. c
22. d
23. b
24. b
25. b
26. b
27. a
28. e
29. b
30. e
31. c
32. e
33. b
34. e
35. b
36. e
37. a
38. e
39. b
40. d
41. d
42. c
43. a
44. e
45. e
46. b
47. b
48. c
49. b
50. e
51. d
52. c
53. b
54. e
55. c
56. d
57. d

Count of a: 5 9%
Count of b: 18 32%
Count of c: 9 16%
Count of d: 11 19%
Count of e: 14 25%

With 5 choices: 57
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 50 51
52 53 54 55 56 57

Macro .cmd splits: 31
Macro .ans splits: 0