

PRINT Name: \_\_\_\_\_

Test Version: 502 One-Answer Multiple Choice 67 Questions – 40 of 40%

- ☞ Read **all** the words of these instructions and **both** sides (back and front) of all pages.
- ☞ Manage your time. Answer questions you know, first. One Answer per question.
- ☞ Put your Name on this Question Sheet. You may write or draw on this Question Sheet.
- ☞ Use your full, unabbreviated name on the mark-sense form. Do not abbreviate your name.
- ☞ Put the three-digit **Test Version** above into both **NO. OF QUESTIONS** and **NO. OF STUDENTS**
- ☞ Fill in the bubbles with pencil only, no pen. Enter your NAME, Test Version, and answers.

1. What would be the output of the following command line:  

```
echo a b c d | awk '{print $2}'
```

  - a. a b
  - b. \$2
  - c. c d
  - d. b
  - e. no output
2. If **a=123** and **b=456** then what is the output of the following sequence of commands: **if [ \$a = \$b ] ; then echo \$a ; fi**
  - a. test: a=123: integer expression expected
  - b. test: \$a: string expression expected
  - c. bash: [123: command not found
  - d. 123
  - e. no output
3. Inside a shell script, which expands to the number of script arguments?
  - a. "\$\*" b. "\$#" c. "\$?" d. "\$0" e. "\$@"
4. If the current directory contains files **abc**, **bbc**, **cbc**, and **bbc** contains just the line **dbd**, what is the output of the following command:  

```
grep bb* bbc
```

  - a. bbc
  - b. an error message
  - c. no output
  - d. cbc
  - e. dbd
5. If the file **foo** in the current directory contains just two lines **dbd**, and **123**, what is the output of the following command: **grep '[:alnum:]' foo**
  - a. dbd
  - b. both lines
  - c. foo
  - d. 123
  - e. no output or an error message

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

```
x=ok ; y=ok ; [ x = y ]
```

  - a. test: x: integer expression expected
  - b. 0
  - c. bash: x: command not found
  - d. no output on screen
  - e. 1
7. How does system logging work under Unix/Linux?
  - a. processes copy logs from your \$HOME directory to the /var/spool directory
  - b. processes write log files into each user's \$HOME directory
  - c. processes send messages to the **init** process that inherits orphan processes
  - d. processes write log entries directly into the system log directory
  - e. processes send messages to a central **rsyslog** program that writes log files
8. If a script named **bar** contains a loop that starts: **for i do** and the script is executed using this command line:  

```
./bar a ' b d ' e f " g h " a
```

how many times will the loop iterate?
  - a. 1 iteration
  - b. 8 iterations
  - c. 9 iterations
  - d. 7 iterations
  - e. 6 iterations
9. If **archive.tar.gz** is a compressed tar archive, which command could you run to produce a listing of its contents without extracting it?
  - a. tar -xzf archive.tar.gz
  - b. tar -tgz archive.tar.gz
  - c. tar -tzf archive
  - d. tar -tgz archive
  - e. tar -tzf archive.tar.gz
10. If a shell script **myscript.sh** is called this way:  

```
./myscript.sh a b c
```

and the first line inside the script below the script header is  

```
echo "$#$1"; shift
```

what is the output of that line?
  - a. 2a
  - b. 3a
  - c. 4c
  - d. 3b
  - e. 2b

11. What is the output on your screen of the following sequence of commands:  
`i=00 ; [ $i -eq 0 ] ; echo $?`
- no output
  - 1
  - `test: $i: integer expression expected`
  - 0
  - the number 0 or 1 followed by another 0 or 1 on a new line
12. If the current directory contains files `abc`, `bbc`, `cbc`, and `bbc` contains just the line `dbd`, what is the output of the following command:  
`grep 'bb*' bbc`
- an error message
  - `cbc`
  - `dbd`
  - no output
  - `bbc`
13. A `crontab` entry of `0 6 * * * /sbin/somescript` would run `somescript` when and how often?
- at 12:06am every day
  - at 6:00am every day
  - at 6:00am every business day
  - at 12:06am every business day
  - at 12:06am every business day and Saturday
14. If `bar` is an executable script containing the line `animal=dog` then what is the `bash` output of this sequence of three commands:  
`animal=pig ; ./bar ; echo "the '$animal' ate"`
- the 'pig' ate
  - the \$animal ate
  - the 'dog' ate
  - the '\$animal' ate
  - the 'animal' ate
15. What is the output on your screen of the following command sequence:  
`a=1 ; b=2 ; test $b -ge $a ; echo $?`
- the number 1 or 0 followed by another 1 or 0 on a new line
  - 1
  - 0
  - `test: $b: integer expression expected`
  - no output on screen
16. If the current directory contains files `abc`, `bbc`, `cbc`, and `bbc` contains just the line `dbd`, what is the output of the following command:  
`grep 'bb*$' bbc`
- no output
  - `bbc`
  - `cbc`
  - `dbd`
  - an error message

17. If the current directory contains files `abc`, `bbc`, `cbc`, and `bbc` contains just the line `dbd`, what is the output of the following command:  
`grep "bb*" bbc`
- `dbd`
  - `cbc`
  - an error message
  - `bbc`
  - no output
18. Which expands to all the script arguments?
- `"$0"`
  - `"$*"`
  - `"$!"`
  - `"$?"`
  - `"$#"`
19. Which of the following regular expressions would match only lines that contain only one or more alphanumeric characters?
- `^[[:alnum:]]*$`
  - `[[:alnum:]][[:alnum:]]*`
  - `[[:alnum:]]*`
  - `^[[:alnum:]][[:alnum:]]*$`
  - `[a-z0-9][a-z0-9]*`
20. Which command sequence correctly searches for the `string` and then prints `OK` if it is found inside the password file?
- `if [ grep string /etc/passwd ] ; then echo OK ; fi`
  - `if [ test string /etc/passwd ] ; then echo OK ; fi`
  - `if grep string /etc/passwd ; then echo OK ; fi`
  - `if test string = /etc/passwd ; then echo OK ; fi`
  - `if test string /etc/passwd ; then echo OK ; fi`
21. If `a=123` and `b=456` then what is the output of the following sequence of commands: `if $a = $b ; then echo $a ; fi`
- 123
  - `test: a=123: integer expression expected`
  - no output
  - `test: $a: string expression expected`
  - `bash: 123: command not found`
22. What is the output on your screen of the following sequence of commands:  
`x=pig ; [ -z $x ] ; echo $?`
- the number 0 or 1 followed by another 0 or 1 on a new line
  - 1
  - `test: $x: integer expression expected`
  - no output
  - 0

23. Which of the following could you use as options for the **tar** command to extract a **gzip**-compressed archive?  
*a. -czf*    *b. -tgz*    *c. egf*    *d. xzf*    *e. ezf*
24. What is the output (if any) of this program fragment? (There are blanks between all the digits in the word list section of the **for** loop.)  

```
s=0
for i in 1 2 3 4
do
    s=$((s+i))
done
echo "$s"
```

*a. 1234*    *b. 1*    *c. 4321*  
*d. 1 2 3 4*    *e. 10*
25. If the file **foo** in the current directory contains just the line **dbd**, what is the output of the following command: **grep '[:alpha:]'** **foo**  
*a. no output*    *b. foo*    *c. dbd*  
*d. an error message*    *e. 123*
26. Which expands to the exit status of the previous command?  
*a. "\$?"*    *b. "\$\*"*    *c. "\$@"*    *d. "\$0"*    *e. "\$#"*
27. A shell script named **bar** is executed as follows:  

```
./bar "a b" "c d e" f
```

Inside the script is the line: **echo "\$3"**  
What is the output on your screen from this line?  
*a. a b*    *b. "f"*    *c. f*  
*d. \$3*    *e. c d e*
28. What is the output on your screen of the following command sequence:  

```
i=04; test $i = 4 ; echo $?
```

*a. test: \$i: integer expression expected*  
*b. 0*  
*c. no output*  
*d. 1*  
*e. the number 0 or 1 followed by another 0 or 1 on a new line*
29. If the file **foo** in the current directory contains just the line **dbd**, what is the output of the following command: **grep '[b1]'** **foo**  
*a. foo*    *b. an error message*    *c. 123*  
*d. no output*    *e. dbd*

30. What would be the output of the following command line:  

```
echo a b c d | awk '{print $NF}'
```

*a. a b c d*    *b. 4*    *c. \$NF*  
*d. d*    *e. no output*
31. Which of the following commands would result in an error?  
*a. [ 3 -eq 4 ]*    *b. [ 3 = 4 ]*    *c. [ a -eq 4 ]*  
*d. [ a != 4 ]*    *e. [ a = 4 ]*
32. Which of the following would result in a "true" exit status?  
*a. [ '00' -ne "0" ]*    *b. [ '00' != "00" ]*  
*c. [ '00' -eq "0" ]*    *d. [ 00 = 0 ]*  
*e. [ '00' = "0" ]*
33. If the current directory contains files **abc**, **bbc**, **cbc**, and **bbc** contains just the line **dbd**, what is the output of the following command:  

```
grep "^bb*" bbc
```

*a. cbc*    *b. dbd*    *c. no output*  
*d. an error message*    *e. bbc*
34. If the line, **exit 2** is executed in a shell script, what is the result?  
*a. termination after sleeping for 2 seconds*  
*b. termination with an exit status of 2*  
*c. termination with an exit status of 0*  
*d. the script breaks out of up to 2 levels of loops*  
*e. an invalid argument error message*
35. Inside a shell script, which correctly expands to be the first script argument without processing any special characters in the argument?  
*a. \ \$1*    *b. "\$1"*    *c. '\$1'*  
*d. \$1*    *e. "\\$1"*
36. Which of the following commands would result in an error?  
*a. [ 3 -e 3 ]*    *b. [ a = 4 ]*    *c. [ 3 = f ]*  
*d. [ 3 -eq 4 ]*    *e. [ a != 4 ]*
37. If **a=123** and **b=456** then what is the output of the following sequence of commands: **if [ \$a = \$b ]; then echo \$a ; fi**  
*a. test: \$a: string expression expected*  
*b. 123*  
*c. test: a=123: integer expression expected*  
*d. bash: 123: command not found*  
*e. no output*

38. If the file **foo** in the current directory contains just the line **123**, what is the output of the following command: **grep '[:alpha:]' foo**
- a. an error message      b. **dbd**      c. **foo**  
 d. **123**      e. no output
39. Which of the following signals is strongest (cannot be handled or ignored)?
- a. **SIGINT**      b. **SIGTERM**      c. **SIGKILL**  
 d. **SIGSUSP**      e. **SIGHUP**
40. If the current directory contains files **abc**, **bbc**, **cbc**, and **bbc** contains just the line **dbd**, what is the output of the following command:  
**grep '^bb\*' bbc**
- a. **cbc**      b. an error message      c. **dbd**  
 d. **bbc**      e. no output
41. What would the following command do: **at 2pm**
- a. issue an error message  
 b. run the user's **crontab** jobs every day at 2pm  
 c. read commands from stdin to be run every day at 2pm  
 d. run the user's **crontab** jobs at 2pm  
 e. read commands from stdin to be run once at 2pm
42. What command would you use to see the command that **at** job number **2** will run?
- a. **at -l 2**      b. **atq 2**      c. **at -c 2**  
 d. **at -m 2**      e. **at -v 2**
43. 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 [ \$a = /dev/null ] ; then date ; fi**  
 b. **if test "" = "\$a" ; then date ; fi**  
 c. **if [ "\$a" = \* ] ; then date ; fi**  
 d. **if [ '' = \$a ] ; then date ; fi**  
 e. **if test "" -eq \$a ; then date ; fi**
44. In a shell **case** structure, the **case** segment that will GLOB match the text **a**, **b**, or **c**, is coded as
- a. **a/b/c )**      b. **a\b\c )**      c. **a,b,c )**  
 d. **a:b:c )**      e. **a|b|c )**
45. Inside a shell script, which expands to the name of the script itself?
- a. **"\$0"**      b. **"\$?"**      c. **"\$#"**      d. **"\$\*"**      e. **"\$@"**

46. If the file **foo** in the current directory contains just the line **dbd**, what is the output of the following command: **grep '^[:alpha:]' foo**
- a. **dbd**      b. **123**      c. **foo**  
 d. no output      e. an error message
47. What is the output on your screen of the following sequence of commands:  
**a=4 ; b=4 ; [ \$a -le \$b ] ; echo \$?**
- a. **1**  
 b. **0**  
 c. no output  
 d. the number 1 or 0 followed by another 1 or 0 on a new line  
 e. **test: \$a: integer expression expected**
48. Which of the following regular expressions would match only lines that contain an **A** or a **B** somewhere?
- a. **^A\*B\*\$**      b. **^[AB]\$**      c. **[^AB]\*\***  
 d. **[AB]**      e. **^[AB]**
49. Given the following shell script statement,  
**if [ "a" = "b" ] ; then echo SAME ; fi**  
 which of the following statements is true?
- a. **"SAME"** would be printed  
 b. **"["** is part of all **"if"** statements  
 c. **"fi"** would cause a "command not found" error  
 d. **"["** is passed four arguments  
 e. an "invalid number" error would result
50. The **cron** system can run commands at most every
- a. day      b. millisecond      c. hour  
 d. minute      e. second
51. If you have a file **crontab.day** of commands in **crontab** format, you could submit that file to be your live **crontab** file by running which of the following commands?
- a. **crontab < crontab.day**  
 b. **crontab -e crontab.day**  
 c. **crontab > crontab.day**  
 d. **crontab -l crontab.day**  
 e. **echo crontab.day | crond**



66. If `browser=lynx` then which one of the following `case` patterns will match this statement: `case "$browser" in`
- a. `@ ) echo yes ;;`
  - b. `(*ynx echo yes ;;`
  - c. `?lynx? ) echo yes ;;`
  - d. `[lynx] | [LYNX] ) echo yes ;;`
  - e. `l?n? ) echo yes ;;`
67. If the current directory contains files `abc`, `bbc`, `cbc`, and `bbc` contains just the line `dbd`, what is the output of the following command:
- ```
grep 'b*$' bbc
```
- a. `cbc`
  - b. no output
  - c. `bbc`
  - d. an error message
  - e. `dbd`

*This page intentionally left blank.*