

1) Login as **user1**, to change the login shell to **/bin/tcsh** for **user1**, you type _____.

- A. `useradd -s /bin/tcsh user1`
- B. `chsh -s /bin/tcsh`
- C. `usermod -s /bin/tcsh user1`
- D. `$SHELL=/bin/tcsh`
- E. None of the above

2) Login as root, to create a user account based on the following:

username: user2

home directory: /home/usertwo

Default login shell: /bin/bash

What is the command that should be used?

- A. `useradd -d -s user2`
- B. `useradd -d /home/usertwo -s /bin/bash user2`
- C. `useradd -d /home/usertwo -m -s /bin/bash user2`
- D. `useradd -s /home/usertwo user2`
- E. None of the above

3) If **user3** is a valid account and the home directory for **user3** is **/home/user3**, the command `usermod -d /home/user3_home user1` will _____

- A. Create **/home/user3_home** if it doesn't exist
- B. Create **/home/user3_home** if it doesn't exist and delete the old directory
- C. Create **/home/user3_home** if it doesn't exist and delete the old directory and make the necessary change to **/etc/passwd**
- D. Only change the home directory of **user3** in **/etc/passwd**
- E. None of the above

4) Which of the following commands deletes **user4** account and **user4's** home directory?

- A. `userdel user4`
- B. `userdel -r user4`
- C. `usermod -r user4`
- D. `usermod -d user4`
- E. None of the above

5) What is the file that stores encrypted group passwords?

- A. /etc/passwd
- B. /etc/group
- C. /etc/shadow
- D. /etc/gshadow**
- E. None of the above

6) Identify the command that is used to delete a group in Linux?

- A. groups
- B. groupdel**
- C. groupmod
- D. newgrp
- E. None of the above

7) Which of the following options for **useradd** command is used to define the account expiration date?

- A. -N
- B. -s
- C. -d
- D. -e**
- E. None of the above

8) Which of the following commands can be used to verify if **user5** has been created in the system?

- A. ls /home
- B. ls /root
- C. cat /etc/passwd|grep user5**
- D. cat /etc/group|grep user5
- E. None of the above.

Login as root, run the following commands and answer question 9 to 12:

```
groupadd group1
groupadd group2
useradd -N user1
useradd -G group1 user2
useradd -G group2 user3
useradd -g user2 -G group1,group2 user4
gpasswd -a user1 group2
gpasswd -d user4 group1
usermod -G group1 user1
groups user4
```

9) Who is a member of group1?

- A. user1 and user2
- B. user2 and user3
- C. user3 and user4
- D. user2 and user4
- E. None of the above

10) Who is a member of group2?

- A. user1 and user2
- B. user2 and user3
- C. user3 and user4
- D. user1, user3 and user4
- E. None of the above

11) who is a member of user2?

- A. user2
- B. user4
- C. user2 and user4
- D. user1 and user2
- E. None of the above

12) What is the output produced by command: *groups user4*?

- A. group1 and group2
- B. user2 and group2
- C. user2, group1 and group2
- D. group2
- E. None of the above

13) To make **user4** the administrator of **group1**, you login as root and type _____.

- A. `usermod user4 group1`
- B. `gpasswd -A user4 group1`
- C. `useradd -g group1 user4`
- D. `groupadd group1 user4`
- E. None of the above

14) Which of the following uses the bash shell as the command interpreter in a script?

- A. `/bin/bash`
- B. `#!/bin/bash`
- C. `!/bin/bash`
- D. `#!/bin/bash`
- E. None of the above

15) What special variable is used to determine the exit status of a previously executed command?

- A. `$#`
- B. `$0`
- C. `$?`
- D. `$9`
- E. None of the above

16) You use the _____ symbol to mark the beginning of a comment in a script.

- A. `#`
- B. `$`
- C. `!`
- D. `>`
- E. None of the above

17) To redirect standard output and error of **script1** to a file named **outerr.txt**, use the _____ command.

- A. `script1 1> outerr.txt`
- B. `script1 2> outerr.txt`
- C. `script1 1&2> outerr.txt`
- D. `script1 > outerr.txt 2>&1`
- E. None of the above

18) _____ is the operator that is used when you want one command to execute only if the preceding command executes successfully.

- ✓
- A. *
 - B. ||
 - C. &&
 - D. >
 - E. None of the above

19) _____ is the symbol used to separate commands in a list, which are executed sequentially.

- ✓
- A. ;
 - B. <
 - C. >>
 - D. &&
 - E. None of the above

20) You use the _____ statement to display all the elements in an array named **labs**.

- ✓
- A. echo \${labs}
 - B. echo \${labs[0]}
 - C. echo \${labs[*]}
 - D. echo \${labs[#]}
 - E. None of the above

21) Which of the following statements is used to display the length of an array named **lectures**.

- ✗
- A. echo \${lectures}
 - B. echo \${#lectures[*]}
 - C. echo \${lectures[#]}
 - D. echo \${#lectures}
 - E. None of the above

22) Which of the following statements is used to display the length of the data value of the second element in an array named **tests**.

- ✓
- A. echo \${tests}
 - B. echo \${tests[1]}
 - C. echo \${#tests[*]}
 - D. echo \${#tests[1]}
 - E. None of the above

23) What is the result when the following script is executed?

```
array1=(a b c d e)
echo ${array1[1+3]}
```

- A. a syntax error
- B. The letter "c" is displayed
- C. The letter "d" is displayed
- D. The letter "e" is displayed
- E. None of the above

24) Is the following the correct way of having a loop exit if 'Q' or lower case 'q' was entered?

```
while [ $CHOICE = 'Q' ] && [ $CHOICE = 'q' ]
```

- A. Yes
- B. No

25) The command `find -name practice` would search from?

- A. The root directory
- B. The user's home directory.
- C. The parent directory.
- D. The current directory.
- E. None of the above

26) What is the output of the following statement?

```
echo "$pwd"
```

- A. current directory
- B. \$pwd
- C. pwd
- D. syntax error
- E. None of the above

27) What must you type in order for child shells to be able to use functions created in the parent shell?

- A. `env <function name>`
- B. `export -f <function name>`
- C. `set <function name>`
- D. just the name of the function
- E. None of the above

28) Given the output of command "ls -l fileone" as the following:

```
-rw-r--r-- 1 albing users 126 2013-04-10 22:50 fileone
```

What is the output of the following statement?

```
echo "$(ls -l fileone|cut -d" " -f4)"
```

- A. fileone
- B. long format listing of fileone
- C. syntax error
- D. users
- E. None of the above

29) What is the output of the following statement?

```
echo "This is my \$test"
```

- A. This is my test
- B. This is my \$test
- C. This is my \test
- D. Syntax error
- E. None of the above

30) What is the output of the following statement?

```
echo "'Today' is April 11"
```

- A. Today is April 11
- B. 'Today' is April 11
- C. "Today" is April 11
- D. "Today is April 11"
- E. None of the above

31) How many directories and sub-directories are created by the following command?

```
mkdir -p {fall,winter}/{lab{1,2},lecture{1,2},test{1,2}}
```

- A. 5
- B. 8
- C. 14
- D. 16
- E. None of the above

32) What is the output of the following statements?

```
{ a=10;b=20; }
(a=30;b=40)
echo $a $b
```

- A. 10 20
 B. 30 40
 C. 40 60
 D. 10 40
 E. None of above

33) The following **echo** statement will execute _____ time(s).

```
for ((num=1; num<=8; num++ ))
do
    echo $num
done
```

- A. 0
 B. 8
 C. 7
 D. 9
 E. None of the above

34) What is the result of executing the following statements?

```
for linux in ubuntu fedora suse
do
    echo $linux
done
```

- A. The words "ubuntu", "fedora" and "suse" are displayed on the screen in one line
 B. The word "linux" is displayed on the screen
 C. The word "\$linux" is displayed on the screen
 D. The words "ubuntu", "fedora", and "suse" are displayed on the screen on separate lines
 E. None of the above

35) The following **echo** statement will execute _____ time(s).

```

((a=10))
while [ $a -eq 10 ] || [ $a -ge 0 ]
do
    echo "Blue ocean!"
    ((a--))
done

```

- A. 0
 B. 10
 C. 11
 D. 12
 E. None of the above

10
9
8
7
6
5
4
3
2
1
0

36) What value of the variable name **total** will be displayed after executing the following statements?

```

((total=0))
for ((num1=1; num1<=6; num1++))
do
    for ((num2=1; num2<5; num2++))
    do
        for ((num3=4; num3>=1; num3--))
        do
            ((total++))
        done
    done
done
echo $total

```

- A. 30
 B. 96
 C. 60
 D. 128
 E. None of the above

37) What is the result of executing the following statements?

```
((g=5))
until [ $g -ge 10 ]
do
    echo $g
    ((g++))
done
```

- A. The numbers 5,6,7,8,9 are displayed on the screen on separate lines
- B. The numbers 5,6,7,8,9,10 are displayed on the screen on separate lines
- C. The numbers 6,7,8,9,10 are displayed on the screen on separate lines
- D. The numbers 6,7,8,9,10,11 are displayed on the screen on separate lines
- E. None of the above

38) What value of the variable name c will be displayed after executing the following statements?

```
((x=0))
((c=1))
while [ $x -lt 5 ]
do
    ((y=4))
    until [ $y -le 1 ]
    do
        ((y--))
        echo $x $y
        ((c++))
    done
    ((x++))
done
echo "The number of times looped is: " $c
```

- A. 5
- B. 12
- C. 16
- D. 20
- E. None of the above

39) What is the result of executing the following statements?

```
((x=10))
echo $x
function function1 ()
{
    local x=20
    echo $x
}
echo $x
function1
((x=x+30))
echo $x
```

- A. The numbers 10, 20, 10, 40 are displayed on the screen on separate lines
- B. The numbers 10, 10, 10, 40 are displayed on the screen on separate lines
- C. The numbers 10, 20, 22, 20 are displayed on the screen on separate lines
- D. The numbers 10, 10, 20, 40 are displayed on the screen on separate lines**
- E. None of the above

40) What is the output of executing the following script file named **display_it**?

```
#!/bin/bash

function shownum ()
{
    echo $1 $2 $3
}
shownum $3 $1 $2
```

```
$ display_it 5 10 20
```

- A. 20 5 10**
- B. 10 5 20
- C. The text "\$1 \$2 \$3" is displayed
- D. The text "\$3 \$1 \$2" is displayed
- E. None of the above

41) The command that will set an option so a search or substitute ignores case in **vim** _____.

- A. `:set hls`
- B. `:set ic`
- C. `:set noic`
- D. `:ignore case`
- E. None of the above

42) Which of the following commands will substitute 'new' for all 'old's on a line in **vim**?

- A. `:s/old/new`
- B. `:s/old/new/g`
- C. `:%s/old/new/g`
- D. `:?/old/new`
- E. None of the above

43) In **vim**, to insert the content of a file, you type _____.

- A. `:r filename`
- B. `:e filename`
- C. `:rm filename`
- D. `:! Filename`
- E. None of the above

44) What is the key combination used to send a process to background?

- A. CTRL+C
- B. CTRL+Z
- C. CTRL+D
- D. CTRL+B
- E. None of the above

45) Identify the command used to display updating information about the processes running on the system _____.

- A. `top`
- B. `nice`
- C. `ps`
- D. `jobs`
- E. None of the above