ULI101 REVIEW SAMPLE QUESTIONS

INSTRUCTIONS:

These are practice questions to act as a rough review for the ULI101 course.

NOTE 1: These questions DO NOT represent the layout of your online final exam. Your instructor will take up these review questions in Week 13.

NOTE 2: Your instructor will NOT post answers in MS Word document (but the lesson will be recorded for remote delivery classes).

QUESTION LAYOUT:

PART A M/C, M/A

PART B MATCHING

PART C LINUX COMMANDS

PART D REGULAR EXPRESSIONS

PART E SCRIPTING

PART A – M/C, M/A

Each question has 1 correct answer. **Circle the letter of each correct answer** on this exam paper. For questions that contain the text "Select all that Apply", treat as a multiple answer question.

1. Which command will copy the file **/bin/ls** to your home directory, assuming that you just logged in? (Select all that Apply)

   a. copy /bin/ls /
   b. cp /bin/ls .
   c. cp /bin/ls ~
   d. copy /bin/ls ..

2. Which command will move a file called **/public/abc.txt**, to your current directory?

   a. mv /public/abc.txt ~
   b. move /public/abc.txt .
   c. mv /public/abc.txt ..
   d. mv /public/abc.txt .

3. Which command will give the same results as **chmod 755** ?
   Assume that you do not know the current permissions of the file (Select all that Apply)

   a. chmod a+777
   b. chmod u+rwx,go+rw
   c. chmod u=rwx,go=rx
   d. chmod u+7,go+5

4. Which command will display a "/" after directory files, and an "*" after executable files?

   a. ls -l
   b. ls -R
   c. ls -i
   d. ls -F

5. Which is the octal value of the file permission: **`rwxr-xr--`** ?

   a. 755
   b. 754
   c. 751
   d. 741

6. Which of the following key combinations will erase the previously typed word when typing a Linux command?

```
a. crtl d
b. ctrl e
c. ctrl u
d. ctrl w
```

7. The **ls –l** command displays file and directory information in several columns. What is the meaning of the first (left-most) character in the display?

```
a. type of file or directory
b. owner of the file or directory
c. always '-' to line up other columns correctly
d. permissions of the parent directory
```

8. Which of the following ENVIRONMENT VARIABLES will display a series of directories that the shell will check in order to run a Linux command?

```
a. PS1 b. HOME c. DIR d. PATH
```

9. Which of the following can be used to separate a Linux command from an argument and an argument from another argument? (Select all that Apply)

```
a. space b.;
c. tab d.,
```

10. Which of the following Linux pipeline commands is invalid?

```
a. grep "the" myfile | ls | more
b. ls | grep "the" > file2
c. head -25 | more < file1
d.ls | sort | tail -30 | more
```

11. Which command will allow pass-through permissions for your home directory? Passthrough permissions allow full permissions for the owner, and read and access permissions for same and different group members.

```
a. chmod 744 ~
b. chmod 700 ~
c. chmod 711 ~
d. chmod 720 ~
```

12. Which command will display your current working directory?

```
a. dir
b. pwd
c. ps
d. ls -p
```

13. Which command will run the shell script called **myscript.bash** for the first time (in the background)?

```
a. ./myscript.bash &
b. bg myscript.bash
c. myscript.bash %
d. ./myscript.bash | bg
```

14. Which of the following Linux commands will create the file **abc.link** which shares the same i-node as the file **abc.txt**?

```
a. ln -s abc.txt abc.link
b. ln -s abc.link abc.txt
c. ln abc.link abc.txt
d. ln abc.txt abc.link
```

15. Which hexadecimal number represents the octal number 36?

```
a. 2
b. 2F
c. 1E
d. C
```

16. Which **vi** command will move the cursor to the end of the file?

```
a. m$
b. ESC
c.G
d.$
```

17. You have **sftp**'d to Matrix from your PC at home.
Which command will copy a file called **file2** to Matrix?

```
a. scp . file2
b. put file2
c. scp file2 .
d. get file2
```

18. What is the value of the exit status variable assuming the previous command executed properly?

```
a.1
b.2
c. 0 (i.e. zero)
d.T
```

19. Which of the following filenames represent a hidden file?

```
a. myfile
b. .myfile
c. myfile.hidden
d. ~myfile
```

PART B – MATCHING

Match the ***Description*** with the most appropriate ***Command*** shown below - write the Command Code in the appropriate column following the example shown.

Note: Not all commands will be used, but a particular one can be used only once.
The First answer is for example purposes.

Letter	Description Command	Command
D	**Display current time and date.**	A. thumb
Q	Display last lines of a file.	B. device link
O	Get user input from standard input.	C. symbolic link
G	Display the type of a file, based on contents.	**D. date**
E	Display a message.	E. diff
C	Which link can be created across file systems?	F. echo
M	Display values of all variables currently set.	G. file
P	The kind of link that affects the link count	H. finger
L	Display online manual information about a command.	I. head
		J. kill
		K. hard link
		L. man
		M. ps
		N. pwd
		O. read
		P. set
		Q. tail

PART C – LINUX COMMANDS

All answers are based on the partial tree diagram shown below. **You can assume that your username is jenny and your current (and home) directory is */home/jenny***. You have been given complete permissions to joey's home directory all of his files and subdirectories.

```
/home            (note that directory names are highlighted)
    |-- joey     (home directory for user joey)
    |       |-- win133
    |       |-- numbers
    |       |-- Music
    |              |-- mysong.wav
    |              |-- mysong.mp3
    |-- jenny    (home directory for user jenny)
    |       |-- WIN133
    |       |-- accounts
    |       |-- labs
    |              |-- lab.instructions
    |              |-- registry.changes
```

1. Write a single Linux command to remove the **labs** directories and its contains. Use absolute pathnames. (2 marks)
   -> `rm -r /home/jenny/labs`

2. Write a single Linux pipeline command to take all lines in the file lab.instructions that match the pattern **test**, and and append only the last 5 lines into the existing file called **accounts**. Use only relative pathnames. (2 marks).
   -> `grep 'test' lab.instructions | tail -n 5 >> accounts`

3. Write a single Linux command to rename the file **accounts** to **myaccounts**. Use only relative-to- home pathnames. (2 marks)
   -> `mv accounts myaccounts`

4. Write a single Linux command to list all processes that are currently running the background. (1 mark)
   -> `ps aux | grep '&'`

5. Write a single Linux command to create three subdirectories under Jenny's (your) home directory: - **uli101** (contained in your home directory)
   - **work** (contained in the uli101 directory)
   - **assignments** (contained in the work directory) (2 marks)
   -> `mkdir /home/jenny/uli101 /home/jenny/uli101/work /home/jenny/uli101/work/assignments`

6. Write a single Linux command to create an empty file in joey's home directory called **me.txt** Use a relative-to-home pathname. (1 mark)
   -> `touch /home/joey/me.txt`

7. Write a single Linux command to move the directory called **registry.changes** to the **WIN133** directory. To answer this question, use one absolute pathname and one relative pathname. (2 marks)
   -> `mv /home/jenny/registry.changes /home/jenny/WIN133`

8. Write a single Linux command to run the **ls abc.txt** command and throw any standard output (stdout) to the "garbage-can". If the previous "ls" command worked, display on the screen **yes**, and if the previous "ls" command didn't work, display on the screen **no** . (2 marks)
   -> `ls abc.txt > /dev/null && echo "yes" || echo "no"`

9. Write a single Linux command to display a calandar for the year 2012. (1 mark)

   -> `cal 2012`

PART D – REGULAR EXPRESSIONS 5 MARKS

Answer all of the following questions in this section.

1. If you want to find all occurrences of . (dot) in the data contained in fileA, what is the grep expression?

-> `grep '\.' fileA`

2. Look at the following grep expression: grep -i "[a-c].*[^0-9]$" fileA
   Which of the following statements is **not** true?

   i. The line can only start with a, b, c or A,B,C
   ii. The line cannot end in a number
   iii. The line can be any length in terms of number of characters on the line
   iv. The line can end in any character other than a number – NOT TRUE

3. What command will you use if you had to cut 3rd and 5th fields from fileA
   -> `cut -f3,5 -d' ' fileA`

4. Write the regular expression that will match any blank lines in fileA
   -> `grep '^$' fileA`

5. write the regular expression that will find a string that has a number followed by a percent sign.
   ➔ `grep '[0-9]%`

PART E – SCRIPTING

Here is a listing of the script **myscript**:

```
#!/bin/bash
echo "let's go"

if [ $# -gt 2 ]
then echo -n "hello"

echo "there"

exit 1 fi

for items in $*
do
   echo $items

done

echo "game over"
```

Assuming this script is located in your current directory with the appropriate execute permissions, display the result upon entering each of the following:

```
./myscript dog horse cat bird
->
let's go
dog
horse
cat
bird
game over

./myscript pencil eraser
->
let's go
pencil
eraser
game over

./myscript
->
let's go
game over
```