

INSTRUCTIONS:

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

NOTE: These questions DO NOT represent the layout of your online final exam.

Your instructor will take up these review questions in the second class of Week 11.

QUESTION LAYOUT:

PART A	M/C, M/A	20 MARKS
PART B	MATCHING	10 MARKS
PART C	LINUX COMMANDS	15 MARKS
PART D	REGULAR EXPRESSIONS	5 MARKS
PART E	SCRIPTING	5 MARKS

PART A - M/C, M/A**25 MARKS****(1 Mark Each)**

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 what the current permissions for the file. (Select all that Apply)
 - a. `chmod a+777`
 - b. `chmod u+rw,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: `rxrx-rx--` ?
 - 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. `ctrl 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?
- type of file or directory
 - owner of the file or directory
 - always '-' to line up other columns correctly
 - 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?
- PS1
 - HOME
 - DIR
 - 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)
- space
 - ;
 - tab
 - ,
10. Which of the following Linux pipeline commands is invalid?
- `grep "the" myfile | ls | more`
 - `ls | grep "the" > file2`
 - `head -25 | more < file1`
 - `ls | sort | tail -30 | more`
11. Which is the protocol in the URL `http://cs.senecac.on.ca/~uli101/index.html` ?
- cs.senecac.on.ca
 - ~uli101
 - http
 - index.html

12. 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 ~`
13. Which command will display your current working directory?
- a. `dir`
 - b. `pwd`
 - c. `ps`
 - d. `ls -p`
14. 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`
15. 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`
16. Which hexadecimal number represents the octal number 36?
- a. 2
 - b. 2F
 - c. 1E
 - d. C
17. Which **vi** command will move the cursor to the end of the file?
- a. `m$`
 - b. `ESC`
 - c. `G`
 - d. `$`

18. 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`

19. 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

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

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

PART B - MATCHING

10 MARKS

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.

**Matching
Command
Code**

Description

Command

(D)	(EXAMPLE) Display current time and date.	
()	Display last lines of a file.	A. a
()	Get user input from standard input.	B. br
()	Display the type of a file, based on contents.	C. soft link
()	Skip to a new line in an HTML page.	D. date
()	Display a message.	E. diff
()	Which link can be created across file systems?	AB. echo
()	Specify a hyperlink in an HTML page.	AC. file
()	Display values of all variables currently set.	AD. finger
()	The kind of link that affects the link count	AE. head
()	Display online manual information about a command.	BC. kill
		BD. li
		BE. Hard link
		CD. man
		CE. ol
		DE. ps
		ABC. pwd
		ABD. read
		ABE. set
		ACD. tail
		ACE. ul

PART C - LINUX COMMANDS**15 MARKS**

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)
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)
3. Write a single Linux command to rename the file **accounts** to **myaccounts**. Use only relative-to-home pathnames. (2 marks)
4. Write a single Linux command to list all processes that are currently running the background. (1 mark)

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)

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)

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)

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)

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

PART D - REGULAR EXPRESSIONS**5 MARKS**

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

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

(1 mark)

3. What command will you use if you had to cut 3rd and 5th fields from fileA (1 mark)

4. Write the regular expression that will match any blank lines in fileA (1 mark)

5. write the regular expression that will find a string that has a number followed by a percent sign. (1 mark)

PART E - SCRIPTING***5 MARKS***

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

```
$ cat 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"
```

Show the result displayed upon entering each of the following:

```
$ myscript dog horse cat bird
```

```
$ myscript pencil eraser
```

```
$ myscript
```