Student Name/ID#: _____

Total Score:

/ 20

1.2 Pi Terminal (aka Command-line)

QUESTION 1

/3

Updating/upgrading your Raspberry Pi operating system and apps should be done regularly to install bug fixes and security patches.
Always reboot your system after installing updates!

There are subtle differences between the commands used to update the Pi from the terminal. Investigate them online and then match each command to its function.

A	**sudo apt-get update**	
B	**sudo apt-get upgrade**	
C	**sudo apt-get dist-upgrade**	

1
This is used to download and install the newest versions of all packages currently installed on the system. It has a smart conflict resolution system, so it will install updates for the most important packages at the expense of less important ones if necessary. Because it intelligently handles changing dependencies with new versions of packages, it may remove some packages that are redundant or conflicting.

2
This is used to download and install the newest versions of all packages currently installed on the system. Under no circumstances are currently installed packages removed, or packages not already installed retrieved or installed. New versions of currently installed packages that cannot be upgraded without changing the install status of another package will be left at their current version.

3
This will resynchronize the package index files and update the package repository to the newest version, ensuring that the packages you install are up-to-date. It does not download or install updates. This command must be run before upgrade commands so that apt-get knows that new versions of packages are available.

QUESTION 2

/14

Match each command with its function.

These commands can be explored using the terminal, or referenced in the [Top 50 Raspberry Pi Commands](#) or [Magpi Essentials: Conquer the Command Line](#).

A | Displays the current user. | ☐

B | Displays the current date and time. | ☐

C | Used to output text to the screen. The text that will be displayed is entered after the keyword before pressing enter. | ☐

D | Removes previously run commands and text from the terminal screen. | ☐

E | Shows disk usage. | ☐

F | Shows how much memory is available. | ☐

G | Checks the status of the wireless connection you are using. | ☐

H | Lists all USB hardware connected to your Raspberry Pi. | ☐

I | Gives permissions for users to access certain admin powers such as updates and upgrades to installed software. | ☐

J | Displays the present working directory; used to check your location. | ☐

K | Lists the contents of the current directory along with file size, date modified, and permissions. | ☐

L | Changes the directory, moving you to anywhere you want in the file system. | ☐

M | Creates a new directory (or folder) inside the current directory; the name of the folder is typed after the keyword before pressing enter. | ☐

N | Permanently and irretrievably deletes the file entered after the keyword. | ☐

| 1 | ls -l | 2 | date | 3 | whoami | 4 | echo | 5 | pwd | 6 | cd | 7 | mkdir | 8 | rm | 9 | sudo |

| 10 | clear | 11 | df | 12 | free | 13 | lsusb | 14 | ifconfig |

Describe the purpose of each section of commands executed in the terminal.

```
pi@raspberrypi: ~                                    —   □   ×

pi@raspberrypi:~ $ pwd
ome/pi
@raspberrypi:~ $ ls
pi@raspberrypi:~ $ mkdir NewFolder
@raspberrypi:~ $ ls
wFolder
pi@raspberrypi:~ $ cd NewFolder
@raspberrypi:~/NewFolder $ touch NewFile.txt
@raspberrypi:~/NewFolder $ ls
wFile.txt
pi@raspberrypi:~/NewFolder $ cp NewFile.txt OtherFile.txt
@raspberrypi:~/NewFolder $ ls
wFile.txt   OtherFile.txt
pi@raspberrypi:~/NewFolder $ rm NewFile.txt
@raspberrypi:~/NewFolder $ ls
herFile.txt
pi@raspberrypi:~/NewFolder $ mv OtherFile.txt /home/pi/
@raspberrypi:~/NewFolder $ cd ..
@raspberrypi:~ $ ls
NewFolder   OtherFile.txt
pi@raspberrypi:~ $ []
```

1 Moves a file from the working directory to another; then verifies the file has been moved.

2 Changes directories, creates a file, and then shows that the working directory contains only that file.

3 Deletes a file; then shows that the deleted file has been removed from the working directory.

4 Creates a copy of a file with a different file name; then verifies the copy was created in the same directory as the original.

5 Creates a directory inside the current directory; then shows that the working directory contains only the new one.

6 Displays the current working directory and shows the user that the working directory is empty.