**Lab Report:**

1. What are Keyboard shortcuts? Why would we use them? What is the Windows AutoHotkey? What do the following shortcuts do?

Key board short cuts are a key or combination of keys that allow a user to access a command within a program. They allow for quicker navigation through your system.

Windows autohotkey is a program that allows for macros to be creating. Essentially, you can make a single key command execute a sequence of other actions.

Control + C

Copy

Control + V

Paste

Control + X

Cut

Control + A

Select All

Alt + Tab

Move through open applications

Control + Esc

Displays start menu

Windows + F

Opens feedback hub and takes a screen grab

Windows

Displays start menu

2. What is Print Screen? Why would we need to use it? How do you do a print screen?

Print screen takes a screen grab of the current screen open and copies it to clip board to be pasted in an application.

This can be used to easily save something displayed on the screen in real time and then go back and provide additional editing to it.

Most keyboards have a print screen key that can be pressed

3. What is the Task manager (Three Finger Salute – Ctrl Alt Del)? Why would you need to use it? What can you see when you pull up the task manager? What do the following things mean?

Task manager is a system which displays details of running programs and applications on your computer.

You use task manager to end a program that is running. Also, to see the status of a program or if the program has stopped responding. System utilization across disk, ethernet, and processor cores can be seen.

Applications

Currently launched applications and all their associated tasks

Processes

Additional tasks that are being run on the system but are not considered to be the size of an application, but still a task that is being tracked.

Performance

A breakdown of the utilization and speed of each major device on the system, including GPU, CPU, memory, disk, ethernet, and Bluetooth.

4. What are the Power Settings? Why would we change them? What is the difference between Sleep and Hibernate?

Power settings provide ways of controlling the performance level of the system to save power or increase performance at the cost of power. Power settings can be changed to performance modes to not limit the system at all while in a situation where we have enough power and need the boost. Battery saving features can be used to limit speeds of the processor to reduce power consumption. Sleep stores the current memory being used within the RAM, allowing for power savings while not being used and quick turn on times. Hibernate stores the current memory on to your disk drive and then shuts the system completely off. This allows for great power savings at the expense of a slower start time when returning.

5. What are the Desktop Settings? Why would we use them? How do we use them? What are the following terms in relation to your Desktop Settings?

The desktop settings hold a lot of the settings to change how the appearance of your system. This is important to use when changing monitor resolutions, adding new monitors, changing display orientations and which is the main display, etc. The desktop settings, referred to as display settings within Windows 10, can be accessed by right clicking the desktop and choosing the option, or by searching “change display settings” within the start menu

Screen Resolution

Sets how many pixels horizontally and vertically to be displayed on your monitor

Gadgets

Gadgets, like smartphone widgets, were small visual tools that presented some sort of information to the user. Gadgets appear to have been discontinued as a feature within Windows 10.

Personalization

Allows for general visual feature changes, such as contrast changes, backgrounds, etc.

6. What are the Task Bar and Start menu? Why are they useful? How do you add programs to the start menu? How do you add programs to the task bar?

The task bar lists all your currently opened programs. Favorite applications can also be saved to the task bar to be easily accessible. The start menu is where all the other applications on your computer can be accessed. The start menu in Windows 10 also has an area for pinning applications as well. Icons within the main dropdown can be dragged directly to the menu to be pinned. Additional programs can be right clicked to present an option to add to the start menu. Right clicking programs also gives the option to pin programs to the task bar.

7. What is the Windows Explorer? Why do you use it? How do you change how the files are sorted? How do you change the settings to show the extensions? How do you show hidden files? What are Item Checkboxes and why would they be used? What do the following shortcuts do in Windows Explorer?

The windows explorer shows the file format and hierarchy of your system. It can be used to navigate to all files stored on your system drive. Under the view panel, the option to show file extensions should be checked by default. Within this same tab, you can choose to show hidden files, which by default is unchecked. The checkbox feature will produce a checkbox next to each file that provides flexible selection of multiple files at once by checking the desired ones.

Window + E

Launches the file explorer

Alt + Left and Alt + Right

Allows quick navigation to previous directories and then back down into the directory

Alt + D and Ctrl + L

Jump the cursor to the file name entry box

Alt + P

Display the previously viewed panel

Alt + Enter or Alt + Double click

Jumps into the properties of the file that was highlighted

8. What is Notepad? Why would you use it? What other options are there? Name one other program that works as well or better then Notepad.

Notepad is a basic text editing tool that comes with Windows operating systems. It can be used for general text recording, ranging from programming to writing papers. Notepad is limited in its formatting options though, so Word or Wordpad may be a better pick for those applications. Notepad++ is also an improved Notepad that has many more programming features. This means there are usually always better applications than Notepad to use.

9. What is the Windows Command window? Why would we use it? How do you open a command window? How do you enter in the commands?

The command window, or command prompt, is a command line interpreter. It used to execute commands that are entered into it and was the major form of computer use before the GUI’s of today became as popular. The command line allows for swift navigation and powerful functionality if understood.

The popular ways to launch the command prompt are to click windows and type command prompt, or to click windows+r and type cmd into the run toolbar

10. What are Compressed Files? Why would we use them? What is the difference between a Zip file and a Rar file? Which one do you use and why? How do you compress a file? Extract a file?

A compressed file is one or more files that is smaller than the original file or set of files after the compression occurs. Compressed files allow for reduced disk space usage and is helpful for downloading files on the web. RAR is a more effective compression algorithm, which results in smaller files, but it requires commercial software to use. ZIP is not as effective at compression but is generally considered to be very good and is a very common and easily uncompressed extension type. Files are compressed and uncompressed differently on different systems. In Windows, right clicking a file or folder will give you the option to compress it. Zipped files will also give you an option to un-zip them. On Linux, programs like 7zip or tar are also used to un-compress files.