What is an Operating System?

Total points 7

1. What are the two main parts that make up an operating system?

○ Users and Software

○ Kernel and Packages

○ Windows and Mac

◉ Kernel and Userspace

> ✓ **Correct**
> Wohoo! The two parts that make up an operating system are the kernel and the user space.

2. What are the main components of file management? Check all that apply.

☐ NTFS

☑ File data

> ✓ **Correct**
> You got it! The main components of file management are the storage of data, the file metadata, and the filesystem.

☑ File system

> ✓ **Correct**
> You got it! The main components of file management are the storage of data, the file metadata, and the filesystem.

☑ Metadata

> ✓ **Correct**
> You got it! The main components of file management are the storage of data, the file metadata, and the filesystem.

3. Which of these are true? Check all that apply.

☑ A program is an application that we can run. A process is a program that is executed.

> ⊘ **Correct**
> Great job! A program is an application, and a process is an application that is executed. You can have many processes running for the same program.

☐ A program is a process that is executed. A process is a program that we can run.

☐ A program is initially stored in RAM. A process is initially stored in the hard drive.

☑ You can have many processes running for one program.

> ⊘ **Correct**
> Great job! A program is an application, and a process is an application that is executed. You can have many processes running for the same program.

4. What are the characteristics of virtual memory? Check all that apply.   0.75 / 1 point

☑ Stores pages that are currently not in use by physical memory.

✓ **Correct**
Excellent job! Virtual memory allows us to extend the physical memory on our machine.

☑ Allows our computer to have more memory than it physically has.

✓ **Correct**
Excellent job! Virtual memory allows us to extend the physical memory on our machine.

☑ Combination of RAM and hard drive space.

✓ **Correct**
Excellent job! Virtual memory allows us to extend the physical memory on our machine.

☑ It is where we store pages that are being executed

✗ **This should not be selected**
Virtual memory stores pages that aren't being used by the system.

6. Which of these are considered I/O devices? Check all that apply.   0.75 / 1 point

☑ Speakers

✓ **Correct**
Excellent job! Any devices that receive input or send out output are considered I/O devices.

☑ Monitors

✓ **Correct**
Excellent job! Any devices that receive input or send out output are considered I/O devices.

☑ Web cams

✓ **Correct**
Excellent job! Any devices that receive input or send out output are considered I/O devices.

☐ Hard disk drives

You didn't select all the correct answers

7. What is the last step in booting a computer?

1 / 1 point

○ Load up drivers.

◉ User space is launched.

○ Execute the bootloader.

○ Perform a POST.

⊘ **Correct**
Well done, you! The last step in booting a computer is launching the user space, like a login window, GUI, and more.

1. True or false: If you have a 32-bit CPU architecture, it's recommended to use a 64-bit operating system.

1 / 1 point

○ TRUE

◉ FALSE

⊘ **Correct**
Nice work! To have better compatibility with your OS and CPU, you should be using the same CPU and OS architecture.

2. If you want to boot into a USB drive, how do you change your boot settings?

1 / 1 point

○ Wipe the computer.

○ Login to the machine.

○ Replace the CPU.

◉ Go into the BIOS settings and change the boot settings

⊘ **Correct**
Right on! To change any boot settings, you'll need to modify your BIOS settings before the computer loads up the operating system.

3. What is the file manager in macOS called?

1 / 1 point

- ⦿ Finder
- ◯ File Explorer
- ◯ Konqueror
- ◯ Midnight Commander

✓ **Correct**
Great job! The file manager in MacOS is called Finder.

4. What command can you use to create a file using bash?

1 / 1 point

- ◯ cat
- ◯ ls
- ⦿ touch
- ◯ mkfile

✓ **Correct**
You got it! You can use the touch command to create a file using bash.

5. A ____ is an emulation of a physical machine.

1 / 1 point

- ◯ BIOS
- ⦿ virtual machine
- ◯ driver
- ◯ kernel

✓ **Correct**
That's right! A virtual machine is used to emulate a physical machine.