Questions: Computer Hardware

1. Define computer hardware.
   1. Computer Hardware consists of all then physical parts of a computer.
2. Name and provide one computer-hardware component and its function.
   1. The most often used input device is the keyboard. It is borrowed from the typewriter with number of new keys added for ease of use of the computer.
3. Define the Central Processing Unit (CPU) and its function?
   1. The CPU of the computer is where work gets done. The Control Unit and ALU (Arithmetic/Logic Unit) are the two components of the CPU.
4. Describe the system unit and its purpose.
   1. The system unit, also known as a “tower” or a “chassis” is the main part of the desktop computer. The tower and the smaller mid- and mini-tower style cases have become popular as people started needing more room for extra drives inside. Repairmen certainly appreciate the roominess inside for all the cables and circuit boards ... and their knuckles.
5. In regard to computer hardware, what is a modem? State its function.
   1. A modem is a network connectivity device that is often connected to the PCI slots on a motherboard if it is not already intergraded on the motherboard. The modem modulates a digital signal from the computer into an analog one to send data out over the phone line. Then demodulates the analog signal into a digital one when receiving a signal.

Questions: System Unit

Inside the system unit are the following components, state its function or purpose.

1. Central processing unit (“CPU”).
   1. The CPU is the part of the computer where work gets done. It is the most important processing component of a computer.
2. Motherboard.
   1. The motherboard (or main circuit board) is the part of the computer that has all of the computer’s processing components. The CPU, ISA slots, memory chip slots, and PCI slots are all on the motherboard and its respective form factor.
3. Computer chip.
   1. The computer chip is another name for the microprocessor and is a single silicon chip containing CIPU, ALU and some memory. The computer chip/microprocessor is on the main board/motherboard.
4. Explain the label outside of a computer that states “Intel Inside.”
   1. When a computer states “Intel Inside” it is saying that the microprocessor(s) in the computer is an Intel microprocessor. Examples include the Intel “Coffee Lakes-S” (14 nm) i7 microprocessor.

Questions: Computer Software

1. What is computer software? State its function.
   1. Computer software is a catch-all term for the programs that handle the running of computer hardware. It’s broken into two terms: operating systems, utility programs.
2. What is an operating system? State its function.
   1. The operating system is a computer program that conducts the communication between the various pieces of hardware and the programs you are running.
3. Distinguish between system software and application software.
   1. System software is used for operating computer hardware. Application software is used by user to perform specific task
4. State the function of a browser program; list one example of such a program.
   1. A browser program is built to simplify browsing the internet. An example of a browser program would be Google Chrome or Firefox.
5. In understanding Office 2013, list and describe 2 features that are new in Office 2013.
   1. A flattered look of the Ribbon interface and subtle animations when typing or selecting (Word and Excel), a new visualization for scheduled tasks in Microsoft Outlook, and a remodeled start screen.

Questions: Windows Registry

1. Define/Explain the Windows Registry?
   1. The Windows Registry is a hierarchical database that stores low-level settings for the Microsoft Windows operating system and for applications that opt to use the registry. The kernel, device drivers, services, Security Accounts Manager, and user interface can all use the registry.
2. What type of information does the Registry contain?
   1. The registry also allows access to counters for profiling system performance. In simple terms, the registry or Windows Registry contains information, settings, options, and other values for programs and hardware installed on all versions of Microsoft Windows operating systems.
3. Explain the importance and function of the Windows Registry.
   1. The registry is important because it stores vital information about your Windows system and its configuration, as well as info about all application programs installed on your computer.

Questions: Files and Folders

1. What is a file?
   1. A file is an object on a computer that stores data, information, settings, or commands used with a computer program.
2. Define a directory and its function?
   1. A directory is a location for storing files on your computer. Directories are found in a hierarchical file system, such as Linux, MS-DOS, OS/2, and Unix. A directory is used to store, organize, and separate files and directories on a computer.
3. What is the purpose of a folder?
   1. A folder, also called a directory, is a special space used to store files, other folders, and shortcuts on a computer. Folders help you keep your files organized and separate. If you had no folders on your computer, your documents, programs, and operating system files would all be located in the same place.
4. List information available in the file properties.
   1. Name, Type, Contents, Size, Parent Folder, Free Space, Accessed, Modified
5. Distinguish between “Save” and “Save As” options.
   1. Choosing "Save" simply saves your work by updating the last saved version of the file to match the current version you see on your screen. The difference is, “save as” allows you to create duplicate files or to save a file under a different format such as an older version of Word.

Complete research on the internet, then answer the following questions by describing each category of software/program and/or its function or usability.

1. Malware Software
   1. Malware is any piece of software that was written with the intent of doing harm to data, devices or to people.
2. Platform Software
   1. Platform is any hardware or software used to host an application or service. An application platform, for example, consists of hardware, an operating system and coordinating programs that use the instruction set for a particular processor or microprocessor.
3. Utilities Software
   1. Utility software is system software designed to help to analyze, configure, optimize or maintain a computer.
4. Course Management Software
   1. A course management system is a set of tools that enables the instructor to create online course content and post it on the Web without having to handle HTML or other programming languages.
5. Device Driver software.
   1. In computing, a device driver is a computer program that operates or controls a particular type of device that is attached to a computer. A driver provides a software interface to hardware devices, enabling operating systems and other computer programs to access hardware functions without needing to know precise details about the hardware being used.

Questions: Computer Usage and Security

1. In reference to computer security, who is a hacker?
   1. A hacker is a person who uses computers to gain unauthorized access to data.
2. List two ways in which a hacker might be tracked or identified?
   1. A hacker might be tracked or identified by their IP address of their digital footprint.
3. In the security realm, why is "encryption" a valuable tool in e-communications?
   1. Encryption, is the process of changing information in such a way as to make it unreadable by anyone except those possessing special knowledge (usually referred to as a "key") that allows them to change the information back to its original, readable form.
4. Why are computer users more susceptible to be a victim of identity theft?
5. In regard to computer technology, define a “firewall’ and its function.
   1. A firewall is part of a computer system or network which is designed to block unauthorized access while permitting outward communication.

Questions: Special Systems and Programs

1. In regard to systems and programs, explain/define the term: “open source code.”
   1. The term "open source" refers to something people can modify and share because its design is publicly accessible.
2. Explain the process of phishing?
   1. Phishing is the fraudulent attempt to obtain sensitive information such as usernames, passwords and credit card details by disguising as a trustworthy entity in an electronic communication. Typically carried out by email spoofing or instant messaging, it often directs users to enter personal information at a fake website, the look and feel of which are identical to the legitimate site.
3. Explain the usefulness of Simulation Software and how a business may use it.
   1. Simulation software is based on the process of modeling a real phenomenon with a set of mathematical formulas. It is, essentially, a program that allows the user to observe an operation through simulation without actually performing that operation. Simulation software is used widely to design equipment so that the final product will be as close to design specs as possible without expensive in process modification. Businesses might use Simulation Software to simulate the behavior of complex processes to save money and/or time in the design and research field.
4. What is Artificial Intelligence; provide an example of a component or device that uses it.
   1. In computer science, artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and animals.

Define the following terms in regard to Websites and Webpages

1. Explain an URL address; provide an example of one.
   1. Uniform Resource Locator (URL), colloquially termed a web address,[1] is a reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it. A URL is a specific type of Uniform Resource Identifier (URI),[2][3] although many people use the two terms interchangeably
2. Define what is meant by Domain Name.
   1. A domain name is a label that identifies a network domain: a distinct group of computers under a central administration or authority. Within the Internet, domain names are formed by the rules and procedures of the Domain Name System (DNS).
3. Define the “HTML” Language and its purpose.
   1. HTML is the standard markup language for creating Web pages. HTML stands for Hyper Text Markup Language. HTML describes the structure of Web pages using markup. HTML elements are the building blocks of HTML pages. HTML elements are represented by tags.
4. What is a Home Page?
   1. A home page is the introductory page of a website, typically serving as a table of contents for the site.