Hardware and Software Worksheet

Define the term hardware? [1 mark]

The physical components that make up a device or computer system

Define what is software? [1 mark]

Software is the computer code, programs, applications and algorithms that give instructions to the hardware to make it perform the desired task.

What is the difference between the system software and the application software? [2 marks]

Application software is a program designed to perform a specific task that the user interacts directly with, whereas system software is concerned with the running of the computer. Its purpose is the control the computer hardware and manage the application software.

Describe the three types of application software [3 marks]

**General purpose software** - Software that is designed to be widely used in many ways for both business and personal use. Eg Office tools such as word processing, presentation software, web browser.

**Specialist Software** – Software that is developed for a specific use or for a specific business, scientific, educational area. For instance air traffic control systems and stock control system would fall under this category.

**Bespoke software** – The is tailor made software that is developed for a specific organisation or client. Bespoke software is expensive but meets the specific needs of an organisation.

Discuss the four types of system software [4 marks]

Operating Systems – Handles the management of the processor, memory, users, applications, peripherals, files and provide the interface for the users

Utility Programs – Programs that support the running of the computer

Libraries – Prewritten code that can be used on other programs

Translators – Converts from High level language to low level language and from assembly to machine code.

Explain the role of an operating system? [6 marks]

* File management - Enables files to be saved, updated and moved
* Peripheral management - Uses hardware drivers
* User interface - Enables users to interact with the machine
* Memory management - Manages transfer of data and instruction code in and out of RAM.
* Application Management - Management of the interaction between the apps and the hardware
* Processor management - Enables multi-tasking of applications
* User management - Provides security through passwords to control access