EH ASSIGNMENT 1

Q.1 Difference between hardware and software.

ANS.

S. No.	Parameters	Hardware	Software
1.	Basic Definition	Hardware is a physical part of the computer that causes the processing of data.	Software is a set of instructions that tells a computer exactly what to do.
2.	Development	It is manufactured.	It is developed and engineered.
3.	Dependency	Hardware cannot perform any task without software.	The software can not be executed without hardware.
4.	Process of creating	Electronic and other materials are used to create hardware.	Created by utilizing a computer language to write instructions.
5.	Tangible	Hardware is tangible as hardware is a physical electronic device, that can be touched.	Software is intangible as we can see and also use the software but can't touch them.

S. No.	Parameters	Hardware	Software
6.	**Durability**	Hardware typically wears out over time.	The software does not wear out with time. However, it may contain flaws and glitches.
7.	**Types**	It has **four** main categories: input devices, output devices, storage, and internal components.	It is mainly divided into System software and Application software.
8.	**Virus effect**	Hardware is not affected by computer viruses.	Software is affected by computer viruses.
9.	**Transfer**	It cannot be transferred from one place to another electrically through the network.	It can be transferred via a network means.
10.	**Machine-Level language**	Only machine-level language is known to be understood by hardware.	The program accepts human-readable input, interprets it in machine-level language, and sends it to hardware for additional processing.
11.	**Replacement**	If hardware is damaged, it is replaced with a new one.	If the software is damaged, its backup copy can be reinstalled.
12.	**Failures**	Dust, overheating,	Overloading, systematic error, major-minor version error, and other factors

S. No.	Parameters	Hardware	Software
		humidity and other factors are commonly responsible for hardware failures.	are commonly responsible for software failures.
13.	Examples	Ex: Keyboard, Mouse, Monitor, Printer, CPU, Hard disk, RAM, ROM, etc.	Ex: MS Word, Excel, PowerPoint, Photoshop, MySQL, etc.

Q.2 Define IP address range and private address range.

ANS. IP addresses are expressed as a set of four numbers — an example address might be 192.158.1.38. Each number in the set can range from 0 to 255. So, the full IP addressing range goes from 0.0.0.0 to 255.255.255.255.

A private IP address is frequently used to connect directly and securely to other devices within the private network. The public address range is any number not used in the private IP address, such as 8.8. 8.8, whereas the private IP address range is 10.0. 0.0-10.255.

Q.3 Explain Network protocol and Port number.

ANS. A network protocol is a set of established rules that dictate how to format, transmit and receive data so that

computer network devices -- from servers and routers to endpoints -- can communicate, regardless of the differences in their underlying infrastructures, designs or standards.

A port number is a way to identify a specific process to which an internet or other network message is to be forwarded when it arrives at a server. All network-connected devices come equipped with standardized ports that have an assigned number.

Q.4 Explain Types of Network Devices

ANS. Hub.

Switch.

Router.

Bridge.

Gateway.

Modem.

Repeater.

Access Point.