**Module 2 CS- Fundamental of Operating**

**Systems & Networks**

1. **Difference between hardware and software.**

**ANS: Hardware is the physical parts of a computer while software is the programs that tell the hardware what to do.**

1. **Define IP address range and private address range.**

**ANS: An IP address range refers to a group of consecutive IP addresses within a specific network while a private address range is a specific set of IP addresses reserved for internal network and not accessible directly from the public internet.**

1. **Explain Network protocol and Port number.**

**ANS: A network protocol is a set of rules that govern how devices on a network communicate with each other essentially defining the language for data exchange while a port number acts as a specific address within a device identify which application or service to run simultaneously on the same computer using a single IP address.**

1. **Explain Types of Network Devices**

**ANS: routers, modems, bridges, gateways, repeater, WAP, firewall, VPN, NIC, Hub.**

1. **Which Tools use for Data Backup and Recovery**

**ANS: Commvault, Veeam, Acronis, EaseUS TODO, Backup, Rubrik, Druva, carbonite, and unitrends.**

1. **Explain HTTP and HTTPS Protocols**

**ANS: HTTP is a protocol for sending data between a web browser and a website, while HTTPS is a more secure version of HTTP.**

1. **What is SSL and TLS Security?**

**ANS: SSL/TLS encryption is a protocol that encrypts data sent between a browser and a website or server, SSL stands for secure sockets layer and TLS stands for transport layer security TLS is an update and more secure version of SSL.**

1. **Explain the MAC ADDRESS**

**ANS: MAC address is a unique identify for a device on a network, MAC address in 48 bit and 12 digit hexadecimal numbers assigned to each device connected to the network**.