10. Explain how a DHCP server assigns IP addresses to devices in your network.

DHCP server assigns IP address to devices through DORA Process.

**DORA Process in DHCP**

1. **Discover (DHCPDISCOVER)** – The client device broadcasts a request to find an available DHCP server.
2. **Offer (DHCPOFFER)** – The DHCP server responds with an available IP address and network configuration.
3. **Request (DHCPREQUEST)** – The client requests to lease the offered IP address.
4. **Acknowledge (DHCPACK)** – The server confirms the lease and assigns the IP along with other details like subnet mask, gateway, and DNS.

