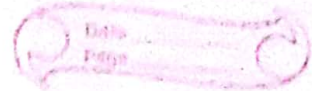


Assignment-2.



Q What is private IP address & public IP addresses? How do the two work together to solve the problem of not enough IP address?

1. private IP address,

→ A private IP address is a range of non-routable IP addresses used within a private network. These addresses are not accessible directly from the internet.

2. public IP addresses

→ They are routable on the internet and are assigned by ISPs to devices or network to enable communication over the internet.

3. Private IP address ranges

- Class A: 10.0.0.0 to 10.255.255.255
- Class B: 172.16.0.0 to 172.31.255.255
- Class C: 192.168.0.0 to 192.168.255.255

4. How private and public IP work together.

→ They work together using NAT (Network address translation).
→ It allows multiple devices on a private network to share a single public IP address for accessing internet.

11 How NAT Works.

1. Device communication

Private network communicate using private IP addresses.

2. NAT Gateway:

When a device needs to access the internet its private IP address is translated to a public IP address by a NAT gateway (usually a router).

3. Internet access

The translated public IP address is used for communication over the internet.

4. Returning traffic:

The NAT Gateway translates incoming traffic from the internet back to the corresponding private IP address.