

## Assignment – 05

### FIREWALL:

A firewall is a network security device either hardware or software-based which monitors all incoming and outgoing traffic and based on a defined set of security rules it accepts, rejects, or drops that specific traffic. It acts like a security guard that helps keep your digital world safe from unwanted visitors and potential threats. A firewall is a type of network security device that filters incoming and outgoing network traffic with security policies that have previously been set up inside an organization. A firewall is essentially the wall that separates a private internal network from the open Internet at its very basic level.

Accept: allow the traffic

Reject: block the traffic but reply with an “unreachable error”

Drop: block the traffic with no reply.

### VPN:

A Virtual Private Network (VPN) creates a secure, encrypted connection over the internet, effectively extending a private network across a public network. This allows users to transmit data securely, hide their IP addresses, and bypass geo-restrictions. VPNs are widely used for enhanced privacy and security.