1. Do you think there is firewall in your institution?Where does the firewall work? Justify your answer.

Firewalls are commonly used in educational institutions for various purposes. They are typically deployed at different points within the network to enhance security and protect against cyber threats. Perimeter firewalls safeguard the network from external threats, while internal firewalls segment the network and restrict lateral movement of threats. Application layer and content filtering firewalls regulate specific applications and content, ensuring a safe and productive learning environment. Intrusion Detection and Prevention Systems (IDPS) provide an extra layer of security. The primary justification for firewalls in educational institutions is to maintain network security, protect sensitive data, enforce responsible internet usage, and create a safe online learning environment.

2. There are concepts like IPSec and VPN, why do you think firewall is still required?

IPSec and VPNs are essential for securing data during transmission over untrusted networks, such as the internet. Firewalls, on the other hand, play a broader role in network security by controlling access, filtering traffic, and enforcing security policies. When used in conjunction, they provide a comprehensive security strategy that protects your network from a wide range of threats.

3. Whether firewall is able to block specific webpages?Answer with your unique Solution.

Proof:

Windows Defender Firewall with Advanced Security

File   Action   View   Help

Windows Defender Firewall with...
  Inbound Rules
  Outbound Rules
  Connection Security Rules
  Monitoring
    Firewall
    Connection Security Rul
    Security Associations

Outbound Rules

Name | Group
Block3
Block2
Block1
Blocked
Blocking scanme.nmap.org
@{Micro
@{Micro
@{Micro
Skype
Skype
Spotify M
Spotify M
AllJoyn R
AllJoyn R
App Inst
Captive
Captive
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Actions

Outbound Rules
  New Rule...
  Filter by Profile
  Filter by State
  Filter by Group

Block3 Properties

General | Programs and Services | Remote Computers
Protocols and Ports | Scope | Advanced | Local Principals

Local IP address
  ○ Any IP address
  ○ These IP addresses:
    [Add...]
    [Edit...]
    [Remove]

Remote IP address
  ○ Any IP address
  ● These IP addresses:
    157.240.15.35
    [Add...]
    [Edit...]
    [Remove]

[OK] [Cancel] [Apply]

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ERR_QUIC_PROTOCOL_ERROR