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You may just answer the questions in 3 - 4 sentences each.

INTERNET AND THE NETWORK – ASSIGNMENT

Local Area Network:

Submit a detail explanation for each question below:

Discuss the disadvantages of LANs.

- LANs, or local area network, link computers in order to share resources within a closed environment, some disadvantages of LANs are network security, if one PC catch a virus it could infect other PC in the same LANs environment, possible to be hacked due to a weak password from a single user, privacy issue from the LAN admin having access to all data in the LAN. There is also the initial high setup cost for the equipments in order to install a LAN.

What are microwaves and how do they transport data?

- Microwaves is a device in many household that heat up food. The radiation that they typically give out is in the 2.45ghz range. If one is being used near your computer, you might experience some interference or distorted display.

What is the difference between strong encryption and weak encryption?

- The difference between a strong and weak encryption is a strong encryption is very difficult to break. Where a weak encryption can maybe be easily break by a professional hacker. A strong encryption is using a different key compared to a weak encryption.

Explain how Public Key Encryption (PKE) can be used to provide strong encryption.

- Public Key Encryption standards such as Secure/Multipurpose Internet Mail Extensions (S/ MIME) can be used to encrypt email messages on your mobile phone. You will not be able to decrypt an email message without a security certificate. You must also have the correct settings enabled for it to decrypt correctly and by having the certificate and private key on your mobile device.

The Internet: Submit a detailed explanation for each question below:

Explain the difference between portable Internet access and mobile Internet access.

Explain what TCP/IP is and how it works.

- TCP, or transmission control protocol, is a 4 layer architecture IP/internet protocol. Its 4 layers consist of application, host2host, internet and link/network and it contains about a dozen of different type of protocol to work and help a PC communicate with another PC. It is the most popular type of networking protocol today.

List the number and purpose of the 5 most commonly used ports:

- Port 25, SMTP, is a protocol that stores messages then forward them to the destination.
- Port 21, FTP, is a protocol that is used during file exchanges, download and upload.
- Port 80, HTTP, is a protocol that is a combination of SMTP and FTP, but HTTP message deliver immediately, no need to store the messages.
- Port 443, HTTPS, is an extension of the HTTP protocol that uses another encryption layer of SSL/TLS to protect the traffic.
- Port 110 or 995 depending on the encryption, POP3, is a email protocol that allows you do download and read emails even if youre offline (only the read part).

The Web and Email: Submit a detail explanation for each question below:
Give two reasons why it is important to upgrade your browser when a new version becomes available.

- First reason is to update the browser itself to more website capability, some website will only work on newer version of a browser. Meaning an update is needed once in awhile if not done everytime for the browser to work effectively.
- Second reason is security, a not up-to-date browser can potentially have unfixed security issues that newer version might have, that would allow hackers/virus on the internet to potentially infect your computer through the not up to date browser.

What are the advantages of local e-mail?

- No need for wifi to read the emails. Hundreds of programs to choose from such as Outlook and thunderbird. You can manage your own emails, keep it for as many and as long as you want depending on your computer storage.

What are the pros and cons of Webmail?

- Pros: fast and easy to use, no software needed just a browser, accessed from anywhere in the world (with WIFI).
- Cons: Is based on the provider (if the provider is down, email won't work), need to have WIFI connection, and limited email storage.