Model Answer of Internet and Web Technology

1. Answer any Three.

a) HyperText Markup Language (HTML) is the basic scripting language used by   web browsers to render pages on the world wide web.

b) A website is a collection of linked web pages that share a unique domain name. Each web page of a given website provides explicit links.

c) The term Internet service provider (ISP) refers to a company that provides access to the Internet to both personal and business customers. ISPs may also provide other services including email services, domain registration, web hosting, and browser packages.

d) World Wide Web, which is also known as a Web, is a collection of websites or web pages stored in web servers and connected to local computers through the internet. These websites contain text pages, digital images, audios, videos, etc.

2. Answer any Two.

a)   The followings are the difference between Internet and Intranet

Internet	Intranet
Internet is used to connect different network of computers simultaneously.	Intranet is owned by private firms.
In internet, there are multiple users.	In intranet, there are limited users.
Internet is unsafe.	Intranet is safe.
In internet, There are more number of visitors.	In intranet, There are less number of visitors.

b) A search engine is a software program, which is designed to perform web searches on the World Wide Web (www). A search engine is a platform on which a user can search the internet content.

Google, Yahoo, Bing, Baidu, and DuckDuckGo are popular search engines. Google is one of the most used search engines worldwide that is used with the Chrome browser. So, almost everyone is familiar with it.

c) A local area network (LAN) is a collection of devices connected together in one physical location, such as a building, office, or home. A LAN can be small or large, ranging from a home network with one user to an enterprise network with thousands of users and devices in an office or school.

Characteristic of LAN

- It is a private network, so an outside regulatory body never controls it.
- LAN operates at a relatively higher speed compared to other WAN systems.

3. Answer any one

a)TCP/IP Reference Model is a four-layered suite of communication protocols. It was developed by the DoD (Department of Defence) in the 1960s. It is named after the two main protocols that are used in the model, namely, TCP and IP. TCP stands for Transmission Control Protocol and IP stands for Internet Protocol.

The four layers in the TCP/IP protocol suite are −

- Host-to- Network Layer/Network Access Layer −It is the lowest layer that is concerned with the physical transmission of data. TCP/IP does not specifically define any protocol here but supports all the standard protocols.
- Internet Layer −It defines the protocols for logical transmission of data over the network. The main protocol in this layer is Internet Protocol (IP) and it is supported by the protocols ICMP, IGMP, RARP, and ARP.
- Transport Layer − It is responsible for error-free end-to-end delivery of data. The protocols defined here are Transmission Control Protocol (TCP) and User Datagram Protocol (UDP).
- Application Layer − This is the topmost layer and defines the interface of host programs with the transport layer services. This layer includes all high-level protocols like Telnet, DNS, HTTP, FTP, SMTP, etc.

TCP/IP MODEL

Application Layer

Transport Layer

Internet Layer

Network Access Layer
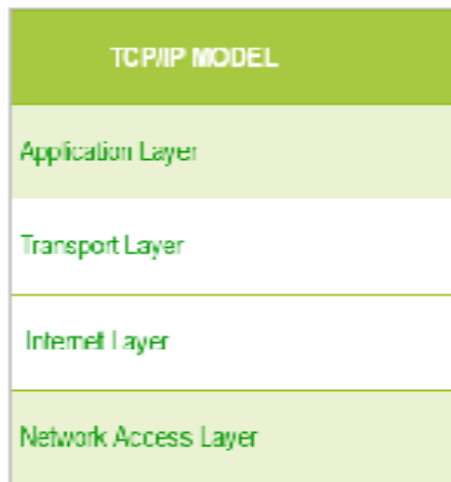
b) Protocol is **an established set of rules that determine how data is transmitted between different devices in the same network.** It allows connected devices to communicate with each other, regardless of any differences in their internal processes.

One of the most common and known protocol example is HTTP, that is used over the world wide web. there are different protocols used in internet .

TCP/IP (Transmission Control Protocol/Internet Protocol)

HTTP

FTP (File Transfer Protocol)

Telnet

TCP

Transmission control protocol is used for communication over a network. In TCP data is broken down into small packets and then sent to the destination. However, IP is making sure packets are transmitted to the right address.

Internet Protocol (IP)

IP is also working with TCP. It is an addressing Protocol. IP addresses packets route them and show different nodes and network Unless it reaches its right destination. The IP protocol is developed in 1970.

FTP

File transfer protocol is basically used for transferring files to different networks. There may be a mass of files such as text files, multimedia files, etc. This way of file transfer is quicker than other methods.

SMTP

Simple mail transfer protocol manages the transmission and outgoing mail over the internet.

HTTP

HTTP is based on client and server model. HTTP is used for making a connection between the web client and web server. HTTP shows information in web pages.

Telnet

Telnet is an established with some rules which are used to connect to another computer. Telnet is mainly used for the remote login process. The computer which is requesting for a connection that is a local computer and which is accepting the connection that is a remote computer. If you give a command in a local computer that command is executed in the remote computer. Telnet is also based on client and server model.