**N+ Assignment**

**Module 5. Network Fundamentals and Building Networks**

**• Beginner Question**

1. What is network?

Ans. Two and more than two electronic’s device are connected with each other it’s called as Network.

2. List Common Network Components

Ans. [1] Hub [2] Switch [3] Router [4] Bridge [5] Gateway [6] Modem

[7] Repeater [8] Access Point.

3. Add and configure loopback adaptor in network and sharing center

Ans. In the Network Adapter list box > click Microsoft Loopback Adapter > and then click Next > Click Next to start installing the drivers for your hardware > Click Finish > Click Start > click Settings > and then click Network Connections to verify that the Microsoft Loopback Adapter has been installed.

**• Intermediate Question**

1. Explain application of network

Ans. A network application is any application running on one host providing communication to another application running on a different host.

2. What do you mean by Node?

Ans. All the electronics devices used in the network are called nodes.

3. practice of simple file folder sharing

Ans. Done In Lab.

**• Advance Question**

1. List types of devices

Ans. [1] Switch [2] Router [3] Modem [4] Access Point [5] Basic Firewall.

2. Explain types of router.

Ans. [1] wired routers [2] wireless routers [3] core routers [4] edge routers

[5] VPN routers.

**Topic: Types of Network**

**• Beginner Question**

1. What is Difference between a LAN, MAN, WAN?

Ans. LAN is a network that usually connects a small group of computers in a given geographical area.

MAN is a comparatively wider network that covers large regions- like towns, cities, etc…

WAN network spans to an even larger locality. It has the capacity to connect various countries together. [ World Largest Network ]

2. Common Network Components

Ans. A network has 5 basic components viz. clients, servers, channels, interface devices and operating systems.

**• Intermediate Question**

1. Explain Wide Area Network

Ans. Two and more than two man network are connected with each other it’s called WAN Network.

2. Explain Network Backbone?

Ans. A backbone network is a core part of a computer network that connects multiple networks together.

3. Explain CAN

Ans. This types of Network we set a range to Access Network. Airports, Schools, Hotels, etc…

**• Advance Question**

1. Define Physical Network Topologies

Ans. Physical network topology is the placement of the various components of a network.

2. Network Architecture: Peer-to-Peer

Ans.

3. Point-to-multipoint network

Ans. One central node or hub communicates with several, up to hundreds in some cases, or end nodes. This is often also referred to as a star topology.

**Topic: Network Devices**

**• Beginner Question**

1. Why we use Network and Devices

Ans. To provide communication and interaction between hardware in a computer network.

2. Explain Switch?

Ans. Switches are key building blocks for any network.

**• Intermediate Question**

1. Define list of cables in use of network

Ans. [1] Ethernet (LAN) Cable [2] Fiberoptic Cable [3] Coxiale Cable.

2. Explain Define Access point

Ans. An access point is a device that creates a wireless local area network, or WLAN, usually in an office or large building.

3. Which types of transmission modes in computer network

Ans. There are two types of transmission modes.

[1] Guided Media [Wire Network]

[2] Unguided Media [Wireless Network]

4. Practice on Remote Desktop connection

Ans. Done In Lab.

5. Practice on remote assistance

Ans. Done In Lab.

**• Advance Question**

1. Explain Repeater and router

Ans. The router is being used to connect to the internet, whereas the repeater is used to replicate the router's received signals and the repeater amplifies.

2. What is multiplexer?

Ans. Multiplexer is a device that takes multiple analog signals and forwards the selected input into a single line.

3. Explain MODEM

Ans. Modem is wireless connectivity.

Modem use for local Area Network.

Can make the modem work as a repeater.

4. Monitor "event viewer"

Ans.

**Topic: Install and configure DHCP, DNS**

**• Beginner Question**

1. Explain DHCP Dynamic host configuration protocol

Ans. Dynamic Host Configuration Protocol (DHCP) is a client/server protocol that automatically provides an Internet Protocol (IP) host with its IP address and other related configuration information such as the subnet mask and default gateway.

2. Application of DHCP with one example

**• Intermediate Question**

1. Explain Domain naming Services

2. Application of DNS with one example

**Topic: Network Topologies**

**• Beginner Question**

1. What are the 5 network topologies?

Ans. [1] Bus Topology [2] Ring Topology [3] Star Topology [4] Mesh Topology

[5] Hybrid Topology [6] Tree Topology

2. What is Internet topology?

Ans. Network Topology also known as Architecture.

3. What is protocol

Ans. Protocol is language which is use for communicating between two or

more than two devices.

**• Intermediate Question**

1. What is the most common network topology?

Ans. Star Topology.

2. Explain star topology in networking?

Ans. Star topology is a network topology in which each network component is physically connected to a central node such as a router, hub or switch.

**• Advance Question**

1. Explain Hybrid topology

Ans. It is the combination of two or more different topologies.

[ Ring + Star + Bus ] Mixing of three topology.

2. What is physical and logical topology?

Ans. A logical topology is how devices appear connected to the user. A physical topology is how they are actually interconnected with wires and cables.

3. What are the types of logical topology?

Ans. There are two types of logical topology.

[1] Broadcast (also known as bus) [2] Sequential (also known as ring).

**Topic: OSI Model**

**• Beginner Question**

1. What is OSI model explain?

Ans. Whenever two networks are connected, it tells the process of sending data.

2. List of Application layer protocol

Ans. [1] DHCP [2] BOOTP [3] DNS [4] FTP [5] HTTP [6] URL [7] IMPP [8] SMTP

[9] TELNET [10] SNMP [11] SSL [12] TLS.

3. How many types of protocols are there?

Ans. [1] HTTP [2] HTTPS [3] FTP [4] SMTP [5] POP3 [6] TFTP [7] DHCP [8] DNS

[9] NTP [10] ARP [11] RARP [12] IP [13] RDP [14] TELNET [15] TCP [16] UDP

[17] SNMP.

**• Intermediate Question**

1. What is the difference between TCP IP model and OSI model?

Ans. TCP/IP Model is a communication protocols suite using which network devices can be connected to the Internet. On the other hand, the OSI Model is a conceptual framework using which the functioning of a network can be described.

2. What is TCP IP networking?

Ans. TCP/IP stands for Transmission Control Protocol/Internet Protocol.

**• Advance Question**

1. What is a wired Internet connection?

Ans.

2. What are the disadvantages of wired networks?

Ans. To be able to access a wired network at a different location, there's no other option but to run extra cables and install switches at that location.

3. How do I configure network authentication?

Ans.

4. Practice of Team viewer, Any Desk, Google Hangout, Skype, zoom

Ans. Done In Lab.

5. Download google chrome

Ans. Done In Lab.

6. configure "date and time" opting in control panel

Ans. Done In Lab.

**Topic: TCP/IP**

**• Assignment level Basic:**

1. What is TCP/IP?

Ans. TCP/IP stands for Transmission Control Protocol/Internet Protocol.

2. What is the full form of TCP/IP?

Ans. Transmission Control Protocol/Internet Protocol.

**• Assignment level Intermediate:**

1. List out the types of IP

Ans. There are four types of IP addresses :-

[1] Public [2] Private [3] Static [4] Dynamic.

2. What is protocol?

Ans. Protocol is language which is use for communicating between two or

more than two devices.

3. DO a practical to set the tcp/ip in network adapter?

Ans. Done In Lab.

**Topic: Cables**

**• Beginner Question**

1. Types of cables and connectors?

Ans. Type’s of Cables

[1] Coaxial Cables [2] Fiber Optic Cables [3] Ethernet Cables.

Type’s of Connectors

[1] Ethernet Cable Connectors [2] Coaxial Cable Connectors [3] USB Connectors

[4] Fiber Optic Cable Connectors.

2. Explain twisted pair cable and shielded twisted pair cable

Ans. Shielded twisted pair (STP) is a special kind of copper telephone and local area network (LAN) wiring used in some business installations.

**• Intermediate Question**

1. Which of these cables connect computers to monitors?

Ans.

2. How do I connect to a shared printer?

Ans.

**• Advance Question**

1. Which cable that is commonly used to connect a computer to a printer?

Ans.  USB 2.0 A/B cable is commonly used to connect a computer to a printer.

2. What are the different ports and connectors?

3. How do I connect my laptop to my printer without cable?

4. Application and brief explanation of fiber optic cable and Coaxial cable

5. Which of following operates at the 5GHz frequency range?

6. What frequency does 802.11g use?

7. What standard is compatible with 802.11a?