***Module 5 Introduction*** ***To Networks***

***Beginner Question***

1. *What is OSI model explain?*

*Ans. OSI model or Open System Interconnection model is a 7-layer model made to understand the communication system in a network. There are 7 layers in the OSI model and each layer in the OSI model has given some work and it has its own role.*

1. *List of Application layer protocol?*

*Ans. List of application layer protocol are: HTTP/S, FTP, Telnet, SMTP etc.*

1. *How many types of protocols are there?*

*Ans. There are different protocols according to the different layers.*

***Intermediate Question***

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

*Ans. TCP/IP is practical framework whereas the OSI was made for research purpose.*

1. *What is TCP IP networking?*

*Ans. The TCP/IP is a model which is used to perform how communication is happening.*

***Advance Question***

1. *What is a wired Internet connection?*

*Ans. When the internet connection is shared or taken with the help of wires or cables then it is known as wired internet connection.*

1. *What are the disadvantages of wired networks?*

*Ans. We are not able to change the configuration much faster as well as we cannot change our position.*

1. *How do I configure network authentication?*

*Ans. Done in lab.*

1. *Practice of Team viewer, Any Desk, Google Hangout, Skype, zoom?*

*Ans. Done in lab.*

1. *Download google chrome?*

*Ans. Done in lab.*

1. *configure "date and time" opting in control panel*

*Ans. Done in lab.*

***Topic: TCP/IP***

***Assignment level Basic:***

1. *What is TCP/IP?*

*Ans. The TCP/IP or Transmission Control Protocol/Internet Protocol is a network model which defines how the communication is happening.*

1. *What is the full form of TCP/IP?*

*Ans. Full form of TCP/IP is Transmission Control Protocol/ Internet Protocol.*

***Assignment level Intermediate:***

1. *List out the types of IP?*

*Ans. There are two types of IP versions.*

1. *IPv4*
2. *IPv6*
3. *What is protocol?*

*Ans. The protocol is set of rules and regulations that need to be followed in a communication between devices.*

1. *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. Types of Cables: Fiber Optic, Coax, Twisted pair*

*Types of Connectors: RJ – 45, BNC Connector, SC, ST*

1. *Explain twisted pair cable and shielded twisted pair cable*

*Ans. Twisted pair are cables which have a two or more pair of cables in twisted format. The shielded twisted pair is the twisted pair who's each pair is shielded.*

***Intermediate Question***

1. *Which of these cables connect computers to monitors?*

*Ans. VGA, HDMI*

1. *How do I connect to a shared printer?*

*Ans. By accessing the shared printer and downloading it’s drivers.*

***Advance Question***

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

*Ans. USB Cable*

1. *What are the different ports and connectors?*

*Ans. Serial Port, Parallel Port, USB Port, etc.*

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

*Ans. Using Bluetooth or wifi.*

1. *Application and brief explanation of fiber optic cable and Coaxial cable*

*Ans.* ***Fiber optics is the technology used to transmit information as pulses of light through strands of fiber made of glass or plastic over long distances.***

*Optical fibers are about the diameter of a strand of human hair and when bundled into a fiber-optic cable, they’re capable of transmitting more data over longer distances and faster than other mediums. It is this technology that provides homes and businesses with fiber-optic internet, phone and TV services.*

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

*Ans. Latest devices.*

1. *What frequency does 802.11g use?*

*Ans. Both 5G and 2.4 G*

1. *What standard is compatible with 802.11a?*

*Ans. 802.11b*

***Topic: TCP/IP concepts -IPv6, IPv4***

***Beginner Question***

1. *What is the difference between IPv4 & IPv6?*

*Ans. The IPv4 is a 32 bit IP address whereas the IPv6 is a 126 bit IP address.*

1. *Explain TCP/IP*

*Ans. TCP/IP is a set of model which describes the how the actual communication is occuring.*

1. *Explain IPV6 Address with Address structure*

*Ans. The IPv6 address is a 128 bit IP address which does not have any classes like IPv4. The IPv6 address has an additional layer of security.*

1. *Explain Difference between public ip and private ip*

*Ans. The public IP address are those IP addresses that are publicly. No a single public IP can be used on two sides. But a single private IP address can be used at two sides.*

1. *Create straight and cross cables and it's testing*

*Ans. Done in lab.*

***Intermediates Question***

1. *Brief explanation of ip Addresses*

*Ans. IP address is necessary for a device to do communication outside the network. There is a mac address but it do communication within a network.*

1. *What is the advantage of IPv6 over IPv4?*

*Ans. The IPv6 provides more IP address as well as more security than the IPv4.*

1. *Assign multiple IPv4 in single network adapter [lan card]*

*Ans. Done in lab.*

1. *Assign simple IPv6 between two system and ping it.*

*Ans. Done in lab.*

1. *Assign and configure simple IPv4 between systems*

*Ans. Done in lab.*

***Advance Question***

1. *Which is faster IPv4 or IPv6?*

*Ans. IPv6*

1. *What does TCP do?*

*Ans. The TCP provides reliable delivery using the three – way handshake.*

1. *Give security in sharing*

*Ans. Done in lab.*

1. *Configure "Map network drive"*

*Ans. Done in lab.*

***Topic: IP routing and Routing protocols***

***Beginner Question***

1. *What Is Routing?*

*Ans. The process of connecting the routers that how they would share a packet that comes to it.*

***Intermediate Question***

1. *What Is Hybrid Routing Protocol?*

*Ans. It is a routing protocol which includes both protocol.*

1. *What Are the Range of Ad Values?*

*Ans. AD is administrative distance. Higher the administrative distance lesser will be the network efficient.*

1. *What Is an Autonomous System?*

*Ans. An autonomous system is a network that comes under a network administrator or a single organisation.*

***Advance Question***

1. *Define Static Routing?*

*Ans. The whole routing performed by an administrator. All the information is provided by the network administrator.*

1. *Explain Dynamic Routing?*

*Ans. The router get update on it’s own.*

***Topic: Switching and VLANS***

***Beginner Question***

1. *What is VLAN?*

*Ans. When we want to use multiple switches within a single switch then it is known as VLAN.*

1. *Which two benefits of creating VLANs?*

*Ans. Security and reduce traffic.*

1. *What is Dynamic VLAN?*

*Ans. The VLAN configuration within large VLANs.*

1. *What is Static VLAN?*

*Ans. The VLAN configuration within a less switch.*

***Intermediate Question***

1. *What is trunk port?*

*Ans. The port in the switch through which a switch is connected to another switch then it is known as trunk port.*

***Advance Question***

1. *How to configure Trunk port?*

*Ans. Done in lab.*

1. *How to delete VLAN information from Switch?*

*Ans. Done in lab.*