1. What is network?

>>> Two or multiple devices connected with each other forms a network.

Connecting with people sharing data among them forms a network.The ongoing communication via users is a network.

For example: Social media, Internet ,we can connect to the whole word by communicating.

1. .What is Internet?

>>> It is a network that connects people all around the world is called internet which helps to communicate .

3. Explain type of network-- LAN, MAN, WAN ?

>>> LAN-[Local Area Network]:-Two or more devices connected in a same network is called as LAN network.

For example :Home, Office, School. Etc

MAN-[Metropolitan Area network]:Two or more lan network connected with each other is called MAN ntwk.

For example: Telephone company ,TV company

WAN[Wide area network] :-Two or more MAN network is connected with each other is called WAN network

For example:- The Interne t, University networks, Enterprise networks etc.

4.Define network topology.

>>>>>Network architecture [layout] is called as network topology.

5. Define list of cables in use of network—Twisted pair , fiber optics

6.Straight cable standard sequence 568 A and 568

>>>>

568 A 568 B

Green/white orange/white

Green Orange

Orange/white green/white

Blue Blue

Blue/white blue/white

Orange green

Brown/white brown/white

Brown brown.

7..What is fibre optics module and fibre connector

>>>FIBER OPTICS;- Made up of cables containing bundles of glass or plastic strands are called as fiber optic cable.

Fiber CONNECTOR;- Devuces that are linked with optical fibers to transmit light signals.

9. Explain Switch

>>> A switch connects devices in a network to each other to talk , by exchanging packets.

Ports:-8,

12,24,48.

It cn do unicasting ,multitasking and also broadcasting.

There is no collision.

10.Explain Router

>>>Use to connect multiple types of network.

Ex; state to state, country to country

11. Explain MODEM

>>>A Device that connects home network to the internet.

Also used as a repeater ,only provide wireless network.

12. Explain DHCP Dynamic host configuration protocol Explain Domain Naming Services What is protocol?

>>>DHCP protocol server provides ip address automatically in wire or wireless network

Domain name service :-domain name to ip address and ip address to domain name.PORT NO:-53.

Protocol is a language used to communicate between two or more devices allows electronic items to send information.

13. What is unicast multicast and broadcast?

14. What is OSI model?

OSI [Open System interconnection] ,describes the middle process when we connect multiple network, server,LAN/WAN.

Launched in 1971 by ISO [international standard organization ]

There are 7 model of OSI, They are:-

7.APPLICATION

6.PRESENTATION

5.SESSION

4.TRANSPORT

3. NETWORK

2.DATA LINK

1.PHYSICAL

The APPLICTION Layer, PRESENTATION Layer, SESSION Layer are called upper layer or software layer.

The Network Layer, Data Link layer ,PHYSICAL Layer are called lower layer or hardware layer.

APPLICATION:-Sends data web client to web server, using data packets

ADD 3:- 1.REQUEST DATA,2.SERVER IP TO DESTINATION IP3PORT NO.

PRESENTATION LAYER:-It works on extension

1. Encryption
2. Decryption
3. Compress.

SESSION LAYER:-All browser tab using port numbers.

TRANSPORT LAYER:-Heart of OSI Model.

UDP VS TCP

Reliable delivery.

Connection establishment.

Acknowledgements & negative.

Segmentation sequencing.

Flow control.

Unreliable [connectionless delivery] -----🡪UDP.

NETWORK LAYER:-Moving data around network of network [internetwork/the internet].

Logical addressing between the networks ----🡪 Routing

Route discovery

Path selection

Devices -🡪 Router

Layer 3 switch & Basic firewall

DATA LINK LAYER:- Converts bit into frames.

Media access control--🡪mac address.

Error detection, flow control

Destination and source hardware address.

PHYSICAL LAYER:-Mechanical specifications for the network medium.

Cable specifications:-connector form factor and pin outs.

Signaling [bit transmission encoding]

Devices;- transreciever media converter.

Hub/modem.

15. What is port number?

>>> it assigns data to the given port no. of the protocol.a

16. Difference between TCP V/S UDP communications What is session development.?

Tcp is an connection based protocol

Udp is connectionless protocol.

SESSION DEVELOPMENT:-Process of creating managing sessions between the interaction of user and web server .

17. What is flow control?

Process of managing the rate of data transmission between the two nodes.

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

OSI MODEL has seven layers and the updated version is called as tcp/ip

OSI MODEL TCP/IP

7.APPLICATION APPLICATION

6.PRESENTATION TRANSPORT

5. SESSION INTERNET

4.TRANSPORT LINK/DATA NETWORK

3.NETWORK. INTERFACE.

2. DATA LINK

1.PHYSICAL

19.What is arp broadcast?

Address Resolution protocol which provides mac address to ip address.

20. What is mac-address?

Mac address are physically attached to hardware device.

Mac address is of 48 bit.

Example of mac address:- 40-8D-5C-41-FA-4F.

21. What is ip address? Difference between ipv4 address and ipv6 address Assign multiple IPv4 in single network adapter in pc what are network vulnerabilities?

-🡪IP Address is a unique identification numbers.

Ipv4 ipv6

Can be used by local person. Organization.

Less secure more secure.

In decimal format in hexadecimal format.

It contains 32 bit 128 bit.

22. What is a firewall to use for?

For the security of any network.

23.Wireless router configure for internet connection and wireless security what is wireless access point? And what is wireless extender?

ACCESS POINT-

It is one type of CAN network.

This device is used to connect all wireless node with the help of SSID and provide best bandwidth in wireless devices.

WIRELESS EXTENDER-

It is used to extend the range. It is also called as a repeater.