Names :mostafa salah abdeltwab class:20

**1-Identify the five components of a data communications**

**System**

1-sender

2-reciever

3-protocol

4-meduiem

5-massag

**2-Categorize the four basic topologies in terms of line configuration**

1-mesh

2-star

3-bus

4-ring

**3-. What is the difference between half-duplex and full duplex transmission modes?**

Half duplex :that have two direction of data

Full doplex: that have direction of data to reach both two station

**4-Name the four basic network topologies, and cite an advantage and disadvantage of each type**

: Advantages:

less expensive than mesh

Easy to install and reconfigure

Robust : one link failure only affect that link

Easy fault identification and isolation

Disadvantage

dependency on single point (hup), if it goes down the

whole system is dead

**5-What are some of the factors that determine whether a communication system is a LAN or WAN**

LANs:

Short distances

Designed to provide local interconnectivity

WANs:

Long distances

Provide connectivity over large areas

**6-. What is an internet?**

Are large network owned five companies: speint ,Verizon , AT&T,NTT,peering.

**: 7-. Why are protocols needed**

The TCP/protocol suit made five layers:

1-physical

2-data link

3-network

4-transpot

5-application

8-Which layers of the TCP/IP protocol suite are involved in

a link-layer switch?

: A link-layer switch in a link, , is involved only in two layers, data-link and

physical