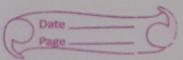
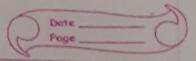
DC tot-1



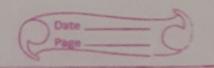
	Explain different transmission modes with example. There are three modes of transmission namely: simplex, half duplex, and full duplex. The transmission mode defines the direction of signal flow between two connected devices.
2	Why are protocols needed?
>	Network protocols are needed because it includes mechanism
- 	for devices to identify and make connections with each other, as well as formatting rules that specify how data is packaged into messages sent and received frotocols are very important in allowing conjuples to communicate with one another. They allow two computers on a network to condenstand one another without protocols, metwork would be just the atring between him came. [Albat are protocols the two types of line configuration? Line configurations are:
	1) point to point
	2) Multipoint.
4.	What are the three ocriteria necessary for an
- 17	
	effective and efficiency? (riteria necessary for effective and efficient network)
	a. Performance:
	It can be measured in many ways, including transmit time and response time
	b. Reliability:
	the time it takes a link to recover from a
	failure, and the velwork's robustness.
	c. Sewrity:
	- on therized occess and viruses.
	- on therized access and viruses.



5) What are the advantages of distributed processing? Distributed y processing es more reliable, since multiple control deta ters are spread across different machines. A glitch for any one machine docent impact the network, since another machine takes over its processing capability. 6) hist different network topology and give advantages and disadvantages. - 1. Mesh topology: · Advantages - Fach connection can carry its own date load. → It is robust - A fault is diagnosed easily - Provides security and privacy. · Disadvantaga: > Installation and configurations are difficult If the connectivity gets more cooling cox - Coboling cost is more and the most in (ase of a fully connected mesh topology -> Bulk wiring is required. Star topology: · Advaidages - Due to Hub device network control and management is much easier. - fault identification and removing nodes in network is easy

It provides very high speed of data fronzer

Disadvantages: - Entire performance of the network depends on
the single device lab. network will be dead. - Star topology rectuires more wires compared to the ring and los topology.



3. Bus topology:

· Advantages: No lubs or switcher are required

— It is easy to connect a davice to the

network

Disadvatages - If the main cable fails or get sarged,
the whole network will fail as more
work station are connected the performance
of the network will become slower
because of doto collisions.

- 7) What are some of the factors that determine whether a communication system is a LAN or WAN?

 The Grouphical area spanned by a network determined whether it is a LAN or a WAN. A WAN or boost Area Network, covers a much larger area, whereas A LAN or Local Area Notwork spans a relatively smaller area.
- to for a devices on a network, what is the number of cable links required for a mesh, ring, bus and after topology?

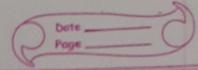
 I non-17/2 cable links are required for mash,

 and reable for bus,

 and reable links for star topology.
 - for each of the following four networks, discuss the consequences if a connection fails.

 3. Five devices arranged in a mach topology b. Five devices arranged in a star topology of the devices arranged in a star topology.

d five devices arranged in a ring topology.



For each of the following four networks,

a.) No major setback to the complete network, if one connection fails, other will continue to work. 6) Connection to that particular device is lost, other can communicate c) If the backhone connection fails, then all communication d.) One faikel connection will disable the entire networks.