study time

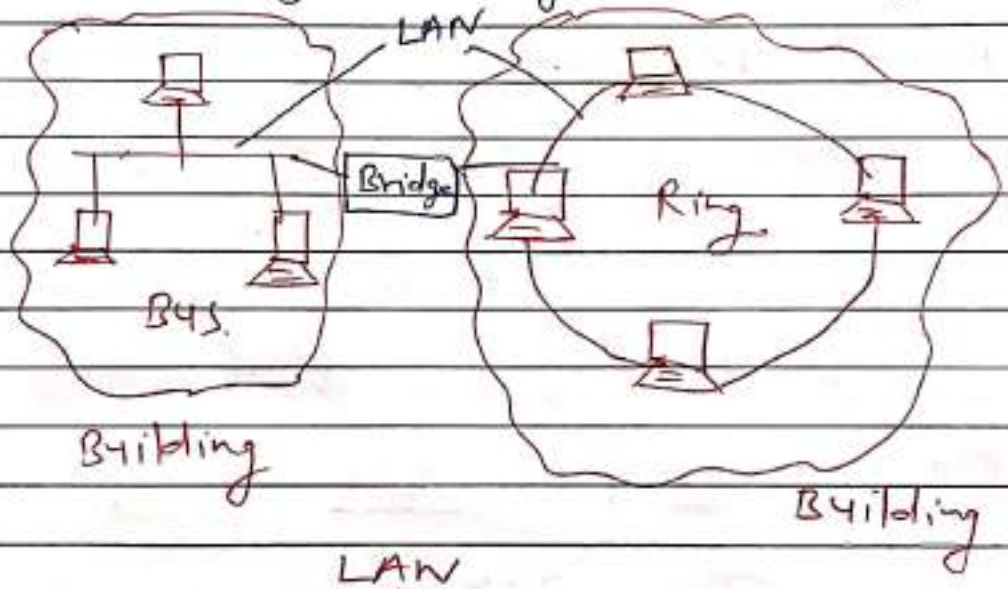
Subject

Date: __/__/____

MON TUE WED THR FRI SAT SUN

Local Area Networks (LAN)

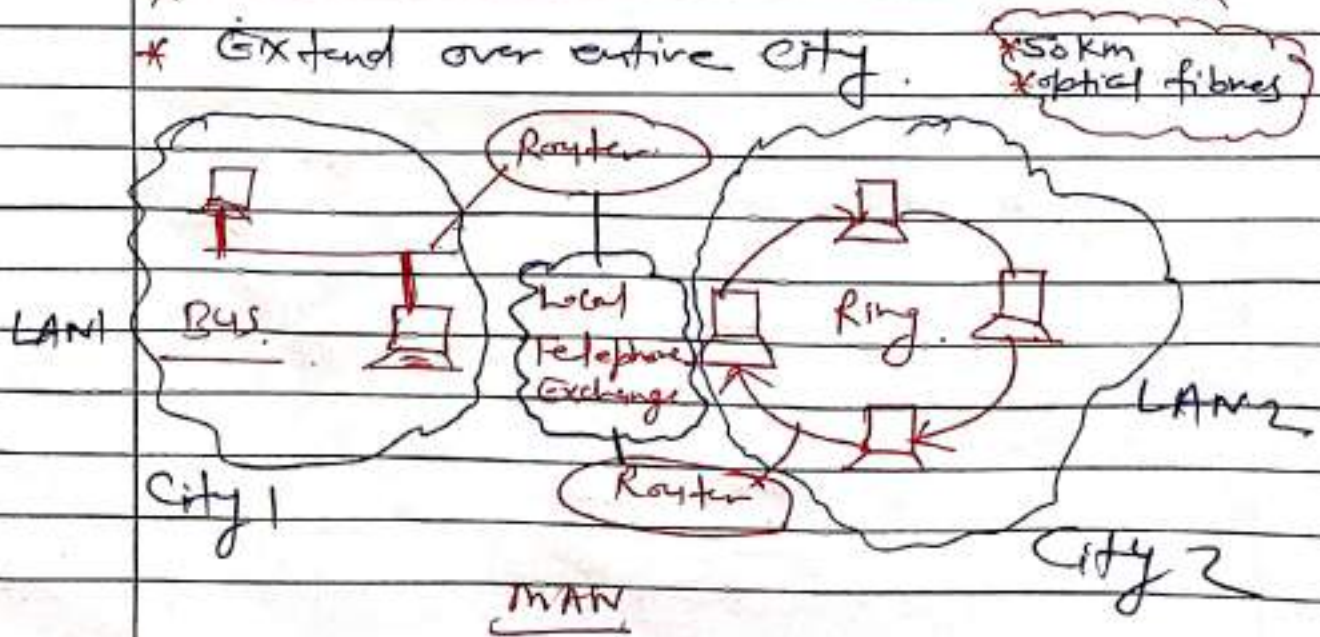
* operate over small physical area such as office / Society etc.
* Easy to design and troubleshoot.
* Bus, Ring topology are generally used.



LAN

Metropolitan Area Network (MAN)

* Extend over entire city.



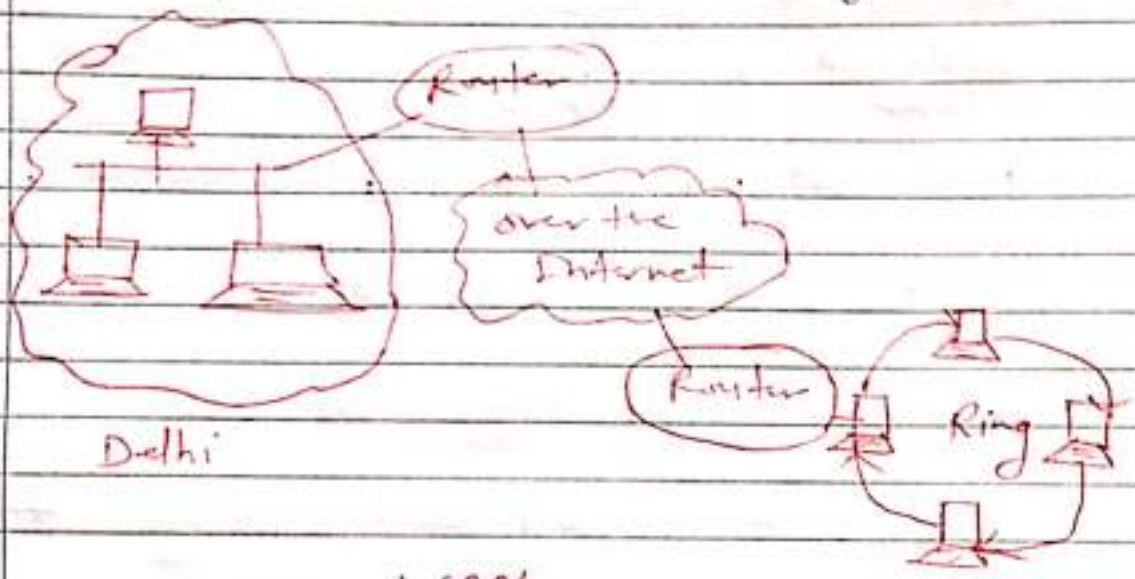
MAN

study time

Subject

Wide Area Network (WAN)

* Large distance such country states.



WAN

Comparison b/n LAN and WAN:

LAN	WAN
* owned by a person - privately owned.	* Can be private or public.] ownership
* operate over small area	* Large distance, across countries.
* Easy to design and maintain.	* not easy.
* Co-axial Cables.	* Satellite links
* minimum propagation delay	* Excessive
* High Data rate.	* Low data rate.
* Broadcasting	* Switching.

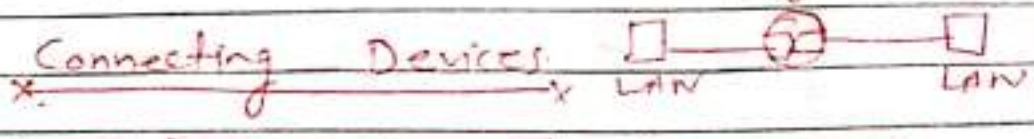
study time

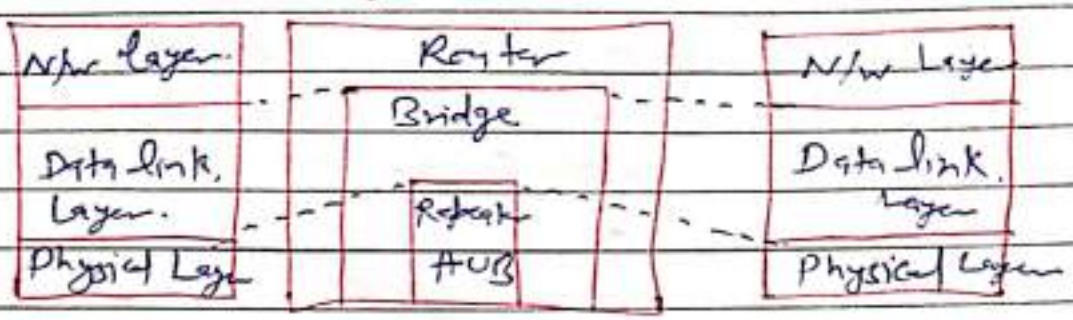
Subject _____

Connecting Devices __/__/__

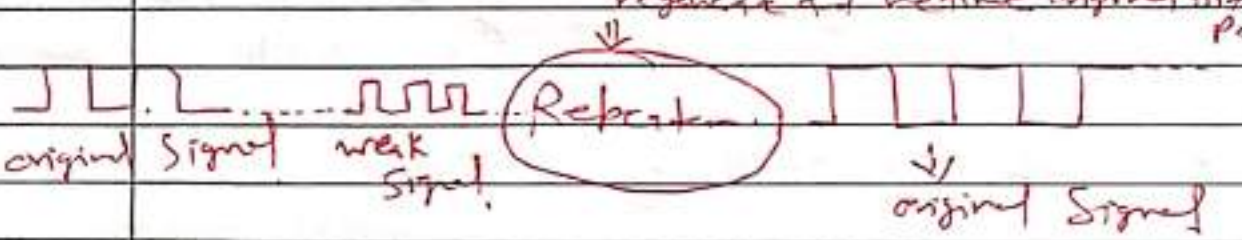
MON TUE WED THR FRI SAT SUN

Connecting Devices



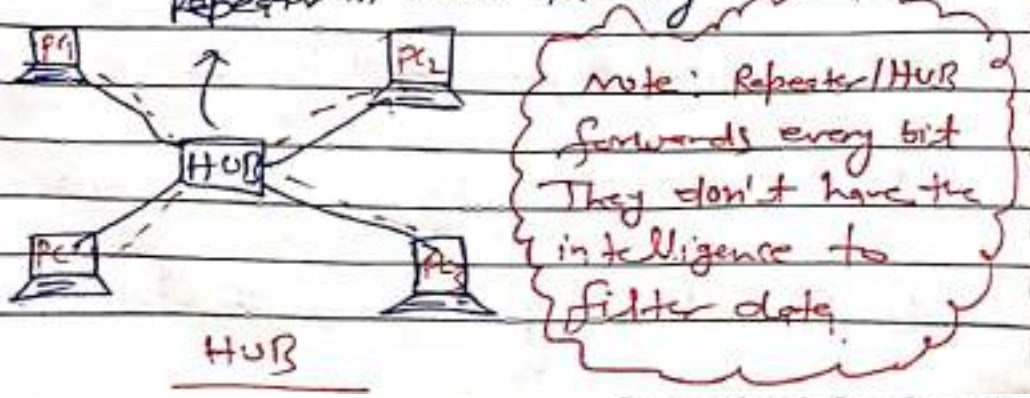


i) **Repeaters**: This devices operate only in the physical layer. A repeater receives a signal and, before it becomes too weak / corrupted, regenerates and retimes original bit pattern.



Repeater.

HUB: In star topology, Repeater is called HUB.



HUB

study time

Subject

Date: / /

MON TUE WED THU FRI SAT SUN

Bridges: This device operates in both Physical and data link layer.

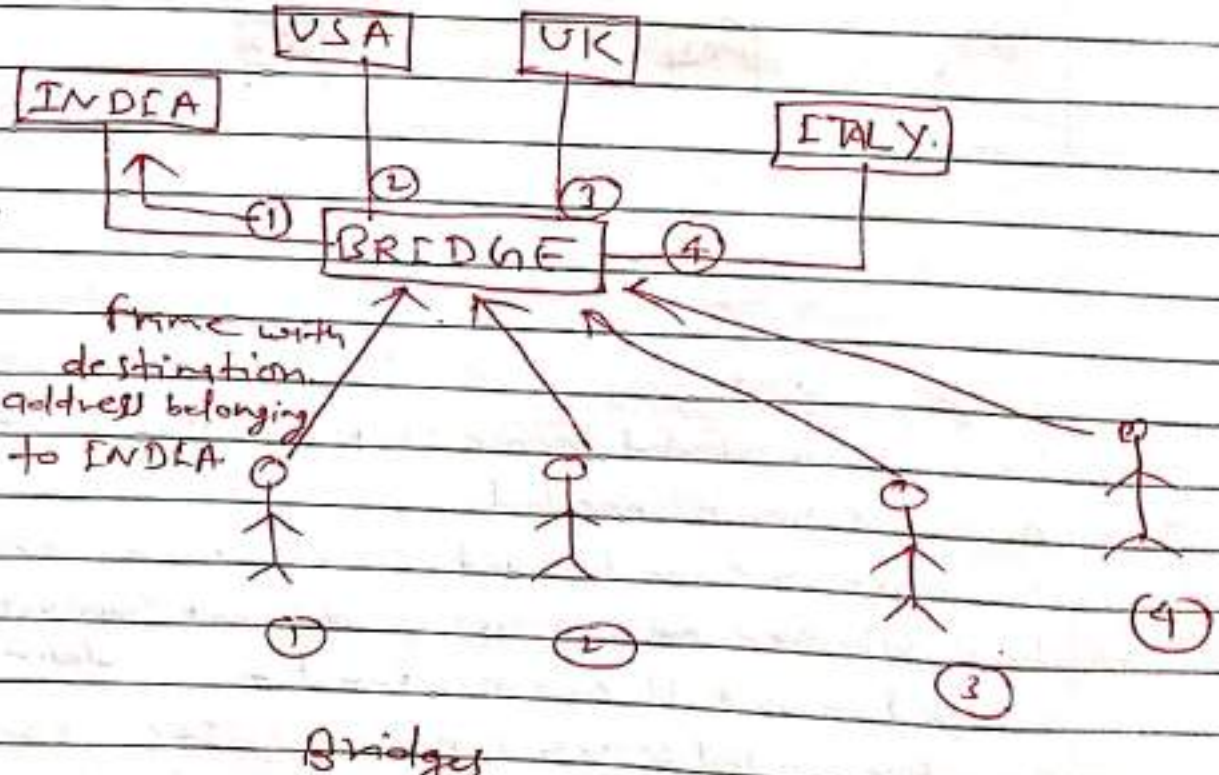
Bridge.

As physical Layer Device
It Regenerates the Signal

As Data link layer Device.
check MAC Address of the frame.

Note: A Bridge has filtering Capacity.

*: Bridge can check the destination address of a frame and can decide from which outgoing PORT the frame should be send out.



Bridges

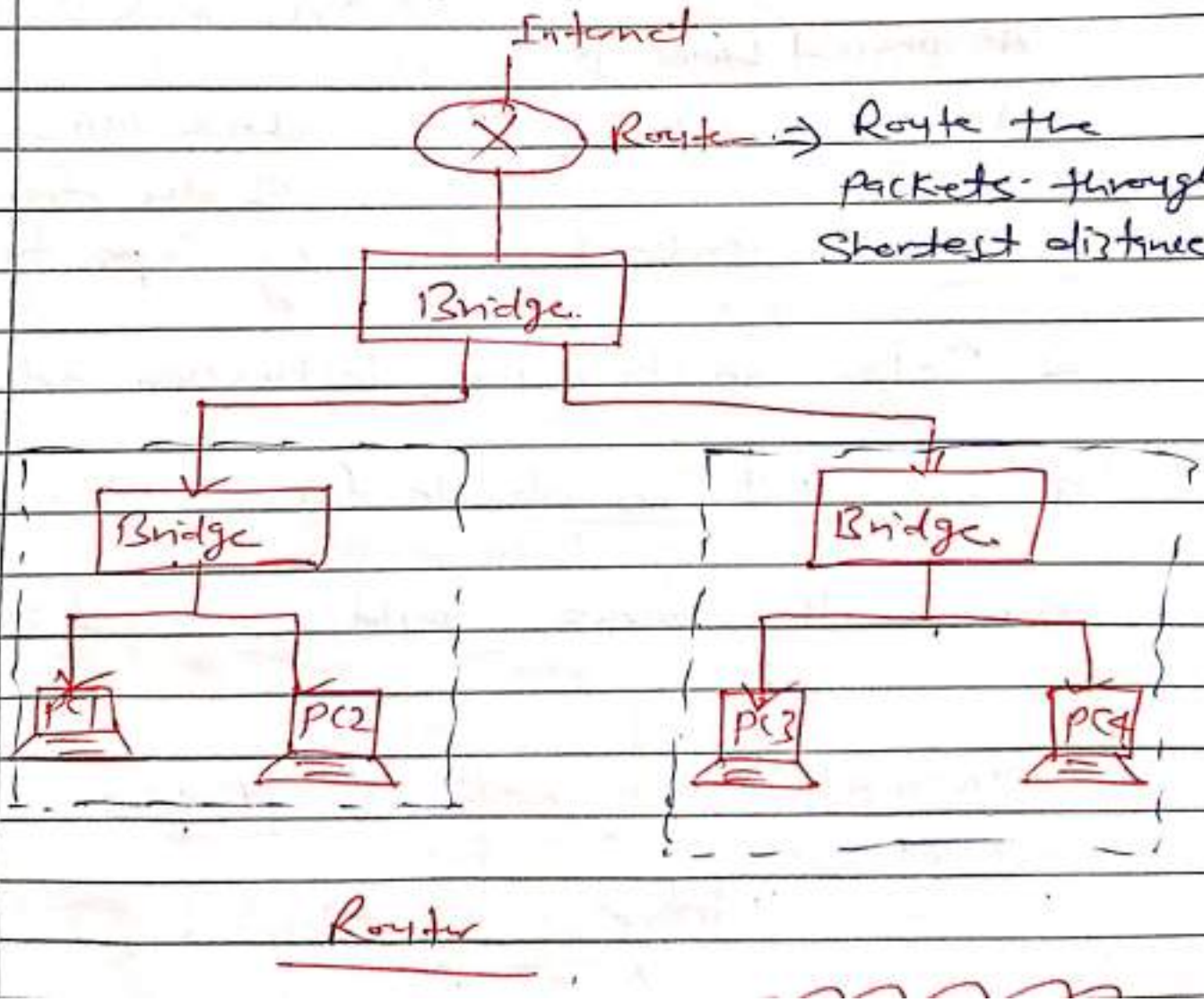
study time

Subject _____

Date: __/__/____

MON TUE WED THR FRI SAT SUN

Routers! This device operates in physical, data link and Network layer. It is an internetworking device.



Router