

Sub: _____

Day

--	--	--	--	--	--	--	--

Time: _____

Date: / /

Lec: 11

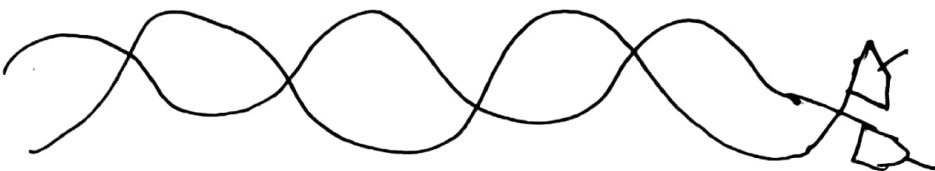
So,
the transmission media is
nothing but a physical media
over which communication take
place in C.N.

wire (wire,

Twisted Pair cable

STP, UTP

~~অন্য~~ ২ টি plastic insulated
copper wire লাস্ট একটর
single media কানোনের জন্য.



Sub: _____

Day _____

Time: _____

Date: / /

২ টি তারের দ্বারা একটি main
Signal conveys করে এবং অন্য

ত ground ref হিসেবে কাজ করে।

* এই তারের দ্বারা twist wire
যুগ্মে noise reduce &
communication এর জন্য ~~very~~ helpful

data মাঝে ~~an~~ accurate টি
receive করতে পারে।

2 types

STP → shielded

এই wire metal foil দ্বারা
cover করা থাকে।

Sub: _____

Day _____

Time: _____

Date: / /

UTP

এই না shielded থাকবে না।

* telephone

Coaxial cable

* it has 2 wires of copper

* the core wire line in the
center & made of solid con-
ductor.

Δ it core is enclosed in
an insulating sheath

then তার বাহিরে sheath for
অবৃত্ত থাকে again insulator sheath
দিয়ে আবৃত থাকে।

Sub: _____

Day

--	--	--	--	--	--	--	--	--	--

Time: _____

Date: / /

and also total to plastic
fibre cover

Like dish line cable.

It carries High freq signal to
transmitter and receiver.

noise & error free and protection
given.

Cables provide high bandwidth
rates up to 400 mbps.

~~Cable system BNC connector~~
~~& BNC-T~~

Sub: _____

Day

--	--	--	--	--	--	--	--	--	--

Time: _____

Date: / /

Fiber Optics - 1

It works on the properties
of light.

The core of fiber optic
cable is made of high quality
glass or plastic.

Fiber optic provides the high
rate mode of speed.

It is data (emitted)
then it is converted to light &
converted to optical fiber &
transmitted then it is
Receiver end & it is data
received.

Sub: _____

Day

--	--	--	--	--	--	--	--

Time: _____

Date: / /

Radio waves

wireless (un guided)

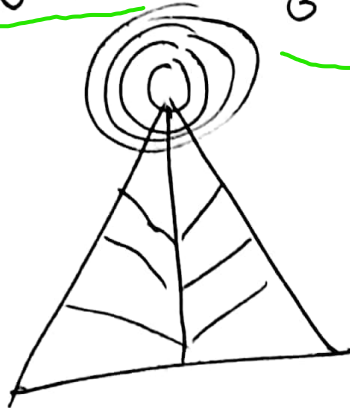
Used for multicast communication
such as radio / TV.

Wall তৈন কটা মেটে মাঝে
penetrate

* highly regulated

* Omni directional (signal all
direction এ সব মাঝে,

* freq. BW = 3 kHz & 1 GHz



Sub: _____

Day: _____

Time: _____

Date: / /

Micro wave

* Used for unicast communication.
Line tele phone / wireless com.

* Higher f_q ranges cannot
penetrate walls.

* Uses directional antennas.
(point to point) communication.

1-300 GHz

Wave
length

Sub: _____

Day: _____

Time: _____

Date: / /

Infrared

AC Remote
wireless speakers.

* This signal can be used for
 only short range communication.

* That should be in a closed
 area using line of sight
 propagation.

* Wall to wall range

* Secure transmission
 media because of its short
 range.

300-400 GHz

Sub: _____

Day

--	--	--	--	--	--	--	--

Time: _____

Date: / /

Switching

it is a mechanism for moving information between different networks. basically its a 1 to 1 connection.

① circuit switching

Here dedicated path Sender & Receiver এর মাধ্যমে তৈরি থাকে।

Here data transfer is established হয়ে।

Example: Telephone line.

Sub: _____

Day

--	--	--	--	--	--	--	--

Time: _____

Date: / /

Mass age

it use store & forward mechanism

Here message is transferred
as a complete unit & forwarded
using store then forward mechanism
at the intermediary node

So, what happen বাড় message
তা বিভিন্ন Pieces এ ভাগ করা হয়

then প্রতিটি intermided node
এ transmitted করা হয়. then

এতে সব ভাগে message তা
full message এ transfer করে।

then এইভাবে forwarded হয়।

Sub: _____

Day

--	--	--	--	--	--	--

Time: _____

Date: / /

Packet

message is broken in individual chunks and that chunks are called packets

প্রত্যেক Packet সমসংখ্যক সমসংখ্যক

Sent কয় ২য়, প্রত্যেক to source & destination IP address with sequence number থাকবে,

Packets এর Record থাকবে & detect missing packets.

Data গ্রাম

প্রতি connection less switching

এই ক্ষেত্রে প্রত্যেক independent