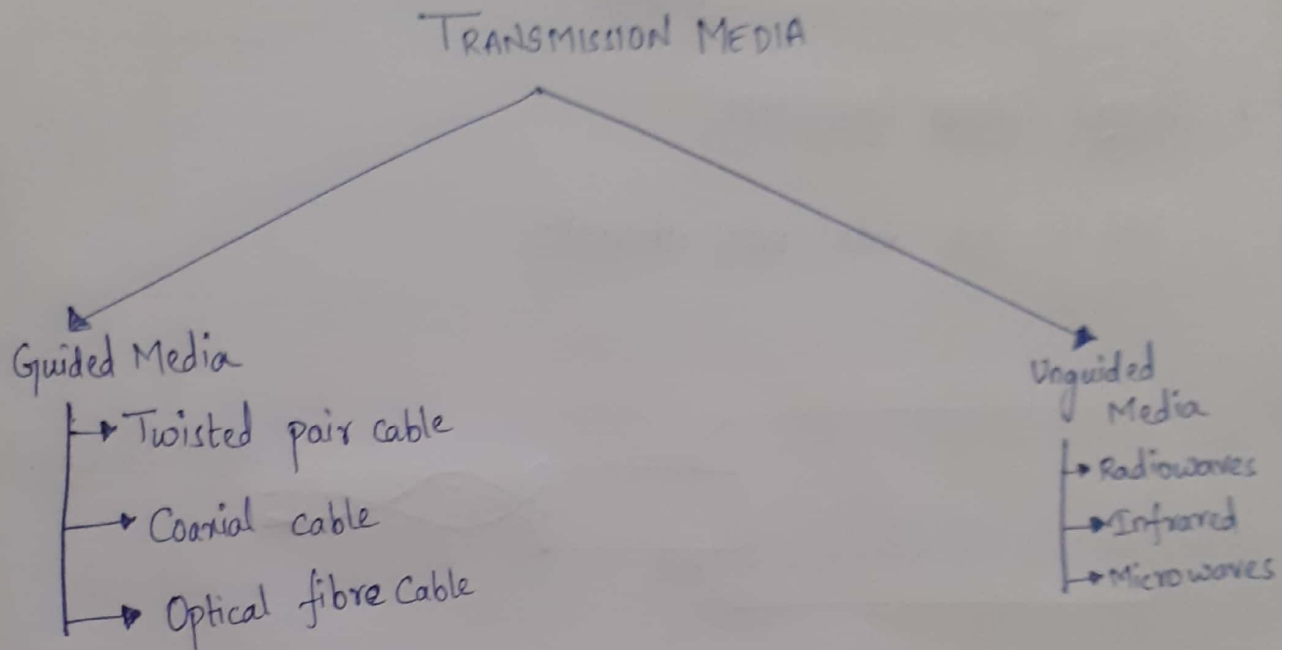


* TRANSMISSION MEDIA:

A channel through which data is sent from one place to another.



→ Guided Media :

Signals that are being transmitted are directed and confined in a narrow pathway by using physical links.

It is also referred as wired or bounded transmission media.

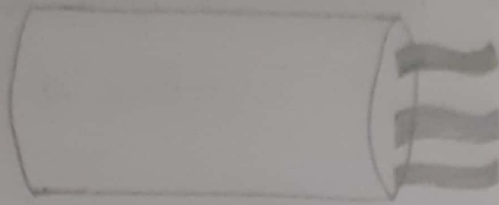
(1) Twisted pair Cable :

It consists of 2 separately insulated conductor wires wound about each other.

Two types :

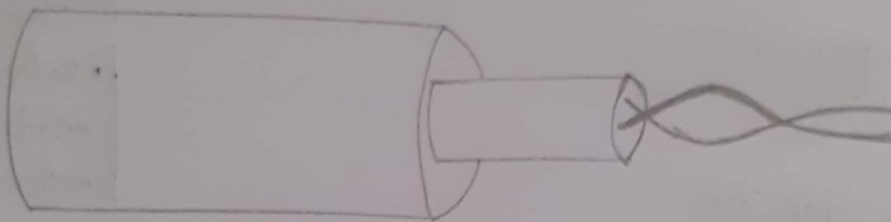
- Unshielded Twisted Pair (UTP):

Used for telephonic applications.



- Shielded Twisted Pair (STP):

Used in fast-data-rate ethernet.

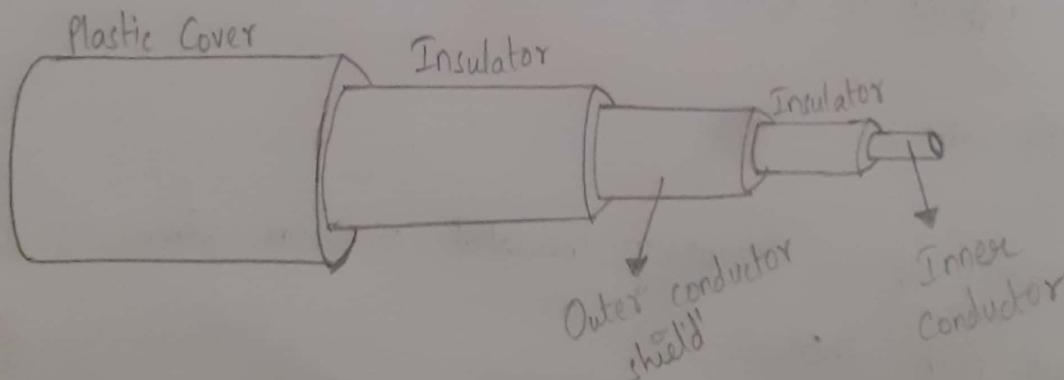


(ii) Coaxial Cable :

This transmits information in two modes :

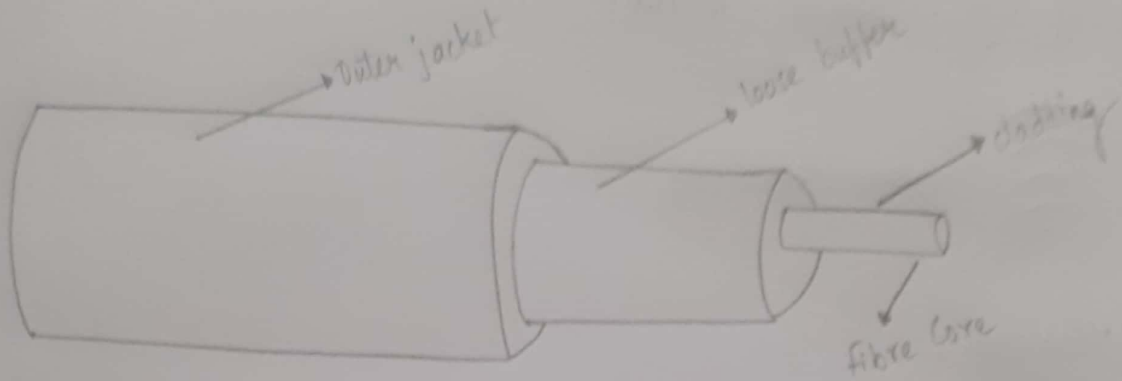
Baseband mode,

Broadband mode.



(iii) Optical fibre Cable :

It uses the concept of reflection of light through a core made of glass or plastic.



→ Unguided Media :

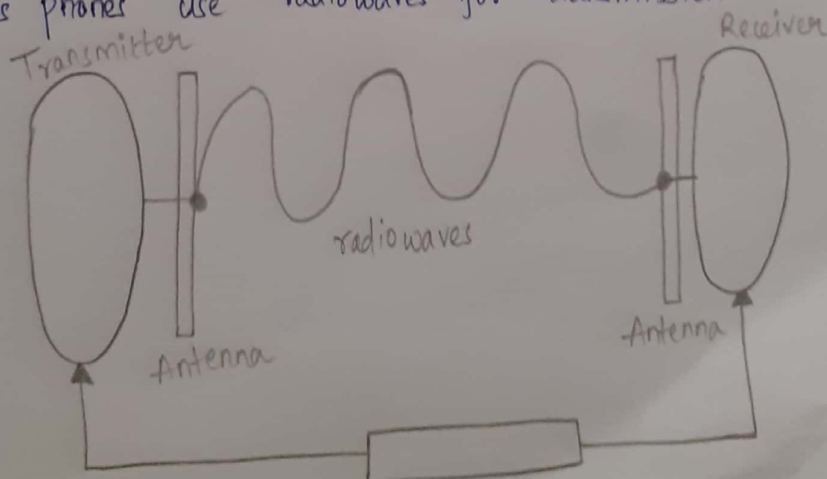
No physical media is required for transmission of electromagnetic signals.

It is also referred to as wireless or unbounded transmission media.

(i) Radiowaves :

These are easy to generate and can penetrate through buildings.

Cordless phones use radiowaves for transmission.



(ii) Infrared:

These are used for very short distance communication.

It is used in TV remotes, keyboard, etc...

Frequency range : $300\text{GHz} - 400\text{THz}$



Infrared Radiations

(iii) Microwaves:

It is a line of sight transmission.

Frequency Range : $1\text{GHz} - 300\text{GHz}$

Majorly used for mobile phone communication.