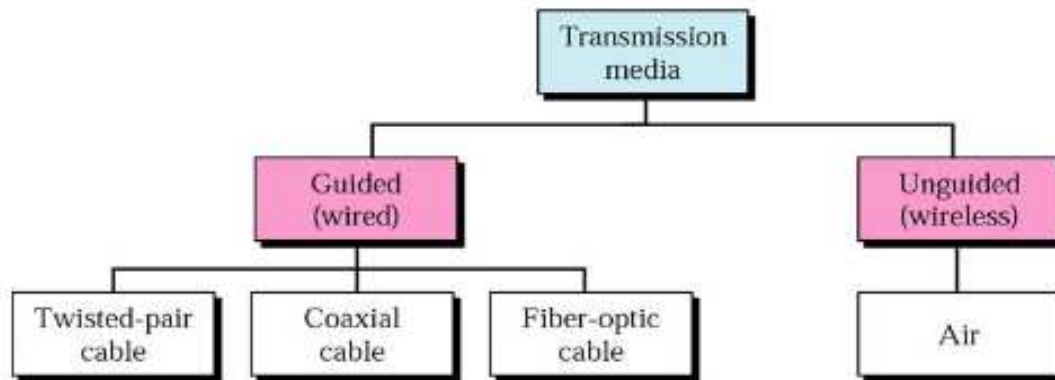


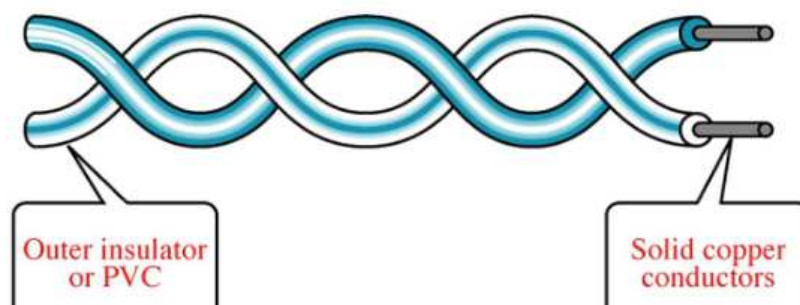
## Chapter 3<sup>rd</sup> [Networking Concepts]

**Transmission media:-** The transmission media is nothing but the physical media over which communication takes place in computer networks.



**Guided media:-** This kind of transmission media is also known as wired otherwise bounded media. In this type, the signals can be transmitted directly & restricted in a thin path through physical links. The main features of guided media mainly include secure, high-speed, and used in small distances.

**Twisted pair cable:-** A twisted pair cable is made of two plastic insulated copper wires twisted together to form a single media. Out of these two wires, only one carries actual signal and another is used for ground reference. The twists between wires are helpful in reducing noise (electro-magnetic interference) and crosstalk.



There are two types of twisted pair cables:

- Shielded Twisted Pair (STP) Cable
- Unshielded Twisted Pair (UTP) Cable

**Shielded Twisted Pair Cable:-** IBM has produced a version of twisted pair cable for its use called shielded twisted pair(STP). STP cable has a metal foil or braided-mesh covering that encases each pair of insulated conductors. Although metal casing improves the quality of cable by preventing the penetration of noise or crosstalk, it is bulkier and more expensive.

**Unshielded Twisted Pair Cable:-** The most common twisted pair cable is used in communication is referred to as unshielded twisted pair(UTP). This is one of the least expensive wires and works for basic needs of phone systems so it is one of the most commonly installed in residential industries.

### **Assignment:-**

- 1-What is transmission media?
- 2-Explain twisted pair cable?