

**Course Name: O Level (2nd Sem)**  
**Topic: Difference between different cables**

**Subject: ICT**  
**Date: 28-05-20**

## **The difference between Coaxial Cable and Twisted Pair Cable:**

	<b>COAXIAL CABLE</b>	<b>TWISTED PAIR CABLE</b>
1.	In coaxial cable, transmission of signals happens via inner conductor of cable.	In twisted pair cable, transmission of signals happens via metallic conducting wire.
2.	Coaxial cables are difficult to install and implement.	While twisted pair cables are easy to install and implement.
3.	Coaxial cable has finest noise protection as compared to twisted pair cable.	In twisted pair cable, there is lowest noise immunity.
4.	Coaxial cable supports a bandwidth of moderate range.	Twisted pair cable supports a bandwidth of low range.
5.	Applications of coaxial cable are in internet connections, television signal distribution and radio transmissions, etc.	Applications of twisted pair cable are in telephone networks and cable shielding.
6.	Cost of coaxial cable is comparatively expensive.	Cost of twisted pair cable is less as compared to coaxial cable.

## **The difference between OPTICAL FIBER Cable and COAXIAL CABLE Pair Cable:**

S.NO	OPTICAL FIBER	COAXIAL CABLE
1.	Optical Fiber is used to transmit the signal is in light form.	Coaxial Cable is used to transmit the signal is in electrical form.
2.	Optical Fiber is made of plastics and glasses.	Coaxial Cable is made of Plastics, copper wires etc.
3.	Optical Fiber is high efficient.	While Coaxial Cable is low efficient.
4.	The cost of optical fiber is high.	The cost of coaxial cable is less.
5.	Optical cable is lighter in weights.	Coaxial cable is heavier than optical fiber in weight.
6.	Optical fiber's diameter is small.	Coaxial cable's diameter is larger than optical fiber.
7.	Installation and implementation of optical fiber is difficult.	Installation and implementation of coaxial cable is easy.
8.	In the optical fiber, there is highest noise immunity as they are unaffected by the electrical noise.	Coaxial cable has finest noise immunity due to the shield provided.

### **Exercise:**

Write the difference between twisted pair, coaxial and optical fiber cable.