Distinguish, differentiate, compare and explain what is the difference between Twisted Pair, Coaxial Cable and Optical fiber. Comparison and Differences.

Differences between Twisted Pair, Coaxial Cable and Fiber Optics

S.No.	Twisted Pair Cable	Coaxial Cable	Fiber Optics
1	Transmission of signal takes place in the electrical form over the metallic conducting wires.	Transmission of signal takes place in the electrical form over the inner conductor of the cable.	Signal transmission takes place in an optical form over a glass fiber.
2	In this medium noise immunity is low.	Coaxial cables have high noise immunity compared to twisted pair cable.	Optical fiber have highest noise immunity as the light rays are unaffected by the electrical noise.
3	Twisted pair cable transmission can be affected due to external magnetic field.	Coaxial Cable cable transmission is less affected by external magnetic field.	Fiber Optics transmission is not affected by external magnetic field.
4	Cheapest medium.	Moderate expensive.	Expensive.
5	Low bandwith.	Moderately high bandwith.	very high bandwidth.
6	Attenuation is very high.	Attenuation is low.	Attenuation is very low.
7	Installation is easy.	Installation is fairly easy.	Installation is difficult.

Steady Run