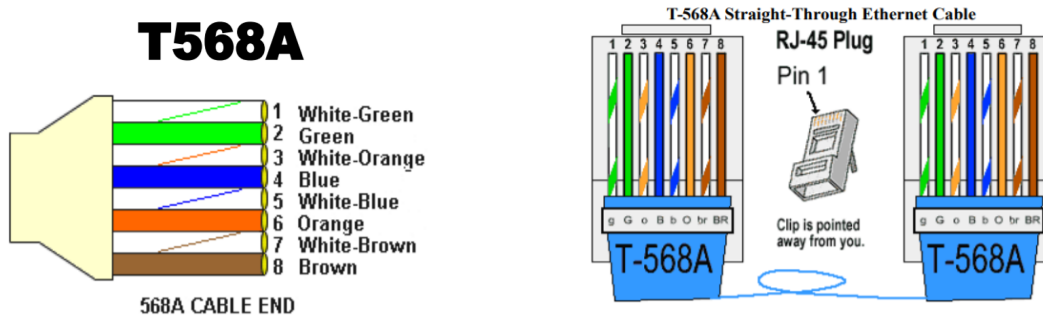## ASSIGNMENT-6
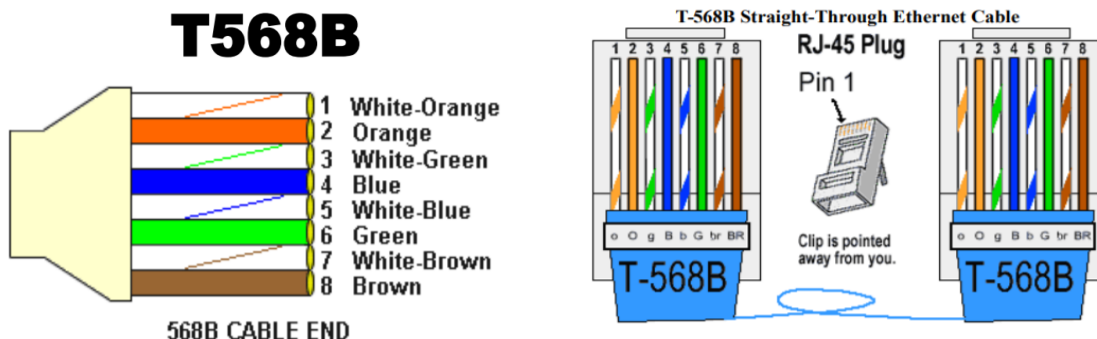## AIM:- Color Coding Schemes and their purpose in an ethernet cable.

There are two network cabling standards in computer networking, they are:-

1.T568A:-Its wiring pattern is recognized as the preferred wiring pattern for this standard because it provides backward compatibility to both one pair and two pair USOC (Universal Serial Ordering Code) wiring schemes.
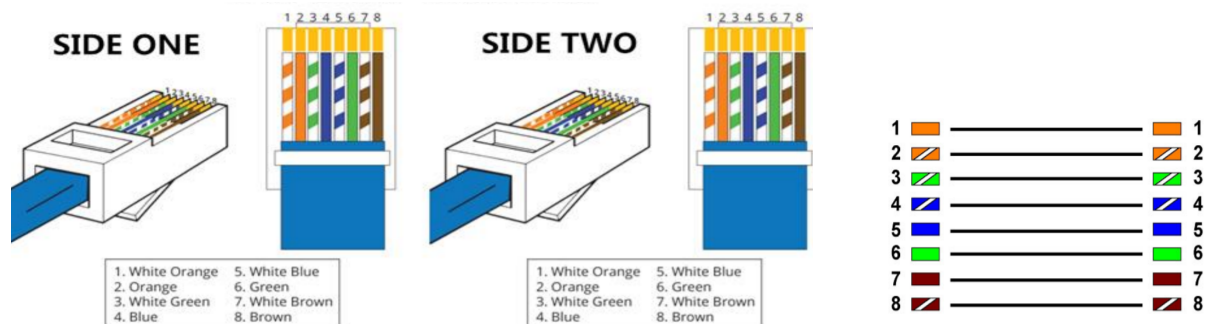

2.T568B:- T568B standard matches the older ATA&T 258A color code and was the most widely used wiring scheme. It is also permitted by the ANSI/TIA/EIA standard, but it provides only a single pair backward compatibility to the USOC wiring scheme.
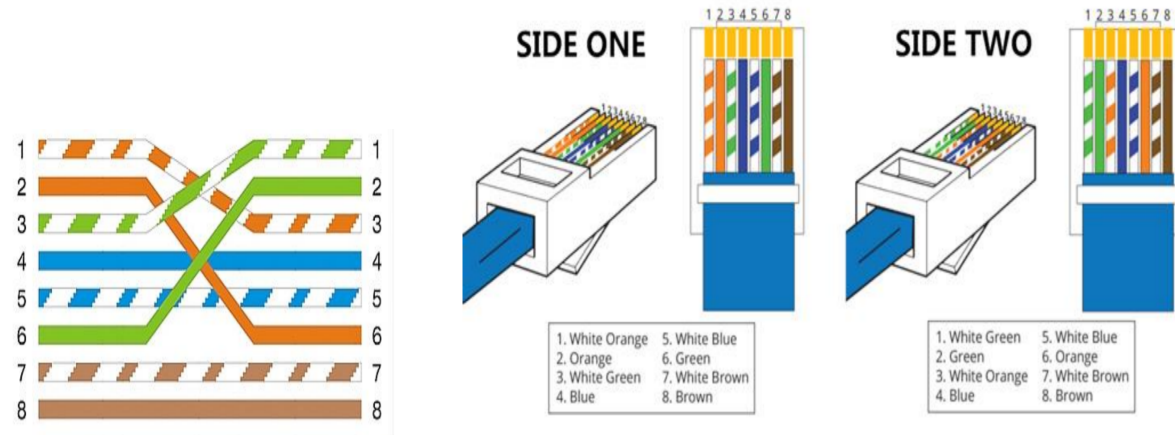

TYPES OF NETWORK CABLING:

1.Straight-through cable- It is a type of CAT5 which the RJ-45 connectors at each end have the same pinout. (color code use on both ends are the same)and this cable is used to connect the computer to the network switch/hub or router.
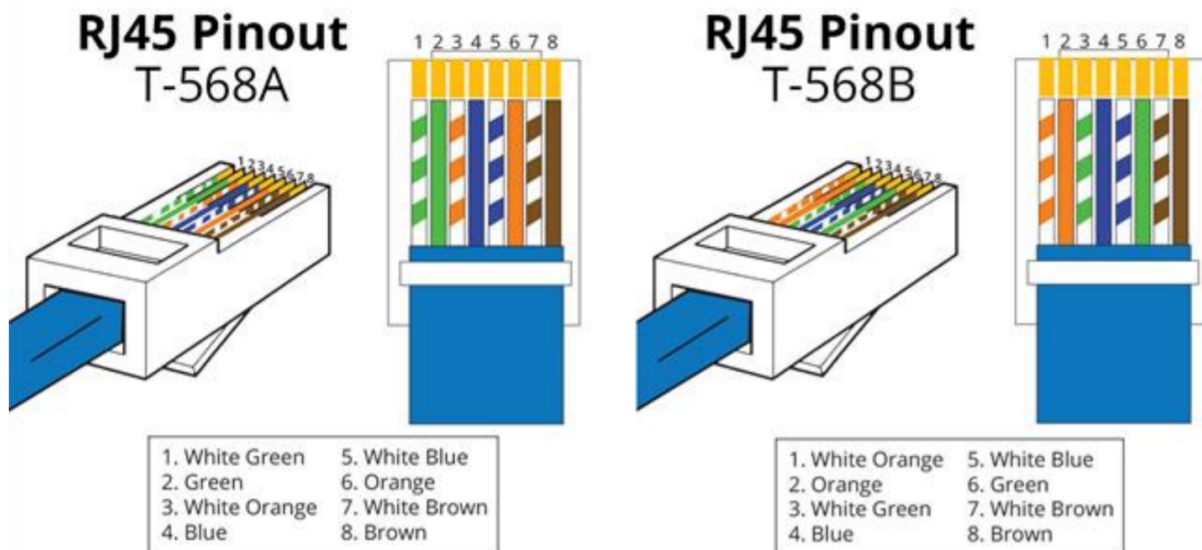
2.Cross-Over cable- A Crossover cable is a type of CAT where one end is T568A configuration and the other is T568B configuration. Pin 1 is crossed with Pin 3 and Pin 2 is crossed with Pin 6.It uses Computer to Computer with no switch or hub.

RJ45 Connector:-

Each RJ45 connector has eight pins, which means an RJ45 cable contains eight separate wires. If you look closely at the end of an Ethernet cable, you can actually see the eight wires, which are each a different color. Four of them are solid colors, while the other four are striped. RJ45 cables can be wired in two different ways. One version is called T-568A and the other is T-568B.

The TIA/EIA 568-A standard which was ratified in 1995, was replaced by the TIA/EIA 568-B standard in 2002 and has been updated since. Both standards define the T-568A and T-568B pin-outs for using Unshielded Twisted Pair cable and RJ-45 connectors for Ethernet connectivity. The standards and pin-out specification appear to be related and interchangeable, but are not the same and should not be used interchangeably.