DIFFERENT TYPES OF NETWORK CABLE

AIM:

To study different types of network cable and learn whow to crimp a cable using an RJ45 connector.

APPARATUS:

→ RJ45
→ Twisted Pair
→ Crimping Tool
→ LAN Tester
→ Scissors

TYPES OF NETWORK CABLE:

1. a) **Twisted Pair cable:**
   * Most commonly used
   * Has 8 column wires twisted in pairs
   * Two type
      → unshielded Twisted Pair (UTP)
      → shielded Twisted Pair (STP)

   b) **coaxiable cable**
      → single copper core with insulation
      → used in TV and old network

   c) **Fiber optical cable:**
      → use light to transmit data
      → very high speed and long distance.

2. **RJ45 connector:**

   An 8 pin connector used to connect twisted pair cable to networking device.

3. **crimping:**

   crimping is the process of attaching RJ45 connection to both ends of twisted

pair cabel.

There are two wiring method :

* T568A
* T568B (Most commonly used).

T568B color code (from left to right, pin 1 to 8) :

1. Orange white
2. Orange
3. Green white
4. Blue
5. Blue White
6. Green
7. Brown white
8. Brown.

PROCEDURE :

step 1 : Strip the cable

* Use the cable stripper to remove about 1 inch of the outer jacket out of the cable.
* You will see 4 pairs of twisted wire (8 wire total).

step 2 : Untwist & Arrange

* Untwisted the wire pairs
* Arrange them correct order (T568B/T568A)

step 3 : Trim the wire

* Once arranged in order, trim the wires to make them even using scissors.

step 4 : CRIMP

crimp th
* Insert the RJ45 into the criming tool & press tightly to fix the wires inside the connector.

step 5: Test

     * use a LAW cable to check if connection is correct.

Types of cable:

cable type	Use	wiring strandard
straight through	Pc to switch/ router	Both ends T568B
crossover	Pc to Pc switch/ router	One end T568A, other T568B.

Result :

     Successfully studied various types of wire cable.