



University of Engineering & Management, Kolkata

Subject Name: Computer Networks Laboratory

Subject Code: PCCCSE692

ASSIGNMENT – 1

Study of different types of network cables and practically implement the cross-wired cable and straight through cable using clamping tool.

1.1. Aim: To study of different types of network cables and practically implement the cross-wired cable and straight through cable using clamping tool.

1.2. Apparatus (Components): RJ-45 connector, Clipping Tool, Twisted pair Cable

1.3. Procedure: To do these practical following steps should be done:

1. Start by stripping off about 2 inches of the plastic jacket off the end of the cable. Be very careful at this point, as to not nick or cut into the wires, which are inside. Doing so could alter the characteristics of your cable, or even worse render is useless. Check the wires, one more time for nicks or cuts. If there are any, just whack the whole end off, and start over.

2. Spread the wires apart, but be sure to hold onto the base of the jacket with your other hand. You do not want the wires to become untwisted down inside the jacket.

3. You have 2 end jacks, which must be installed on your cable. If you are using a pre-made cable, with one of the ends whacked off, you only have one end to install - the crossed over end.

Ethernet straight-through cable: In this cable, wires are placed in the same position at both ends. The wire at pin 1 on one end of the cable connects to pin 1 at the other end of the cable. The wire at pin 2 connects to pin 2 on the other end of the cable; and so on.

The following table lists the wire positions of the straight-through cable on both sides.

Side A	Side B
Green White	Green White
Green	Green
Orange White	Orange White
Blue	Blue
Blue White	Blue White
Orange	Orange
Brown White	Brown White
Brown	Brown

Ethernet cross-over cable: In this cable, transmitting pins of one side connect with the receiving pins of the other side.

The wire at pin 1 on one end of the cable connects to pin 3 at the other end of the cable. The wire at pin 2 connects to pin 6 on the other end of the cable. Remaining wires connect in the same positions at both ends.

The following table lists the wire positions of the cross-over cable on both sides.

Side A	Side B
Green White	Orange White
Green	Orange
Orange White	Green White
Blue	Blue
Blue White	Blue White
Orange	Green
Brown White	Brown White
Brown	Brown

1.4. Result:

1.5. Conclusion: