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To learn about STP, UTP cables and their connectors

Subject: COMPUTER NETWORKS (Pr)

(Lab 2 - Tasks Solution)

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| **Roll No:** | **22SW028** |
| **Section:** | **I** |

**LAB TASKS:**

**1. What is the difference between cross over cable and straight cable?**

**Ans:** The difference between the cables is as under:

**Straight-Through Cable**:

This cable has the same wiring sequence on both ends, meaning pin 1 is connected to pin 1, pin 2 to pin 2, and so on. It is typically used to connect devices of different types, such as a computer to a switch, or a router to a switch.

**Crossover Cable**:

This cable has different wiring sequences on each end, crossing the critical pairs so that transmit and receive signals are aligned. It is used to connect similar devices, like PC-to-PC, switch-to-switch, or router-to-router.

**2. How many pins does an RJ-45 modular plug have?**

**Ans:** An RJ-45 modular plug has 8 pins.

**3. Which type of connection should a straight-through cable is used for?**

**Ans:** Straight-through cables should be used for connections between devices of different types.

**Switch to Router**: Yes, a straight-through cable should be used.

**Router to PC**: Yes, a straight-through cable should be used.

**Switch to Hub**: No, a crossover cable is required. (As both belong to same group of devices)

**Switch to Switch**: No, a crossover cable is required.

**Hub to Hub**: No, a crossover cable is required.

**4. What type of cable would be used to make the connection between the console port of a router and a workstation?**

**Ans:** A rollover cable (also known as a console cable) is typically used for connecting a router's console port to a workstation. This cable is specifically designed to allow access to the router's configuration interface from a terminal or terminal emulator on the workstation.