

21/7/25

Exp No: 2 Study of different types of network cable.

Ques: Study of different types of network cable

1. Unshielded Twisted pair (UTP) cable
2. Shielded Twisted pair (STP) cable
3. Coaxial Cable
4. Fiber optic cable

CABLE TYPE	CATEGORY	MAXIMUM DATA TRANSMISS	ADVANTAGES	DISADVANTAGES	APPLICATIONS
UTP	Category 3	10 Mbps	• Advantages: - Cheaper	• Disadvantages: - Easy to install	10 Base T Ethernet
	Category 5	upto 100 mbps	• Advantages: - Faster than Category 3	• Disadvantages: - More prone to EMI	Fast Ethernet Gigabit Ethernet
	Category 5e	1 Gbps	• Advantages: - Shielded	• Disadvantages: - Expensive - Greater installation cost	Gigabit Ethernet
STP	Category 6/6a	10 Gbps	• Advantages: - Faster than UTP	• Disadvantages: - Expensive	Gigabit Ethernet
	Category 7		• Advantages: - Faster than STP	• Disadvantages: - Expensive - Greater installation cost	10Gb Ethernet widely used in data centers
Coaxial Cable	RG-6	(10 - 100 Mbps)	• Advantages: - High Bandwidth - Immune to Interference - Low Loss	• Disadvantages: - Limited distance - Cost - Size & Bulky	Speed 9 8 GHz 500 m Television network high speed internet
	RG-59				
	RG-11				

		Advantages:		Maximum
Fibre	optical cable	Single Mode	Multi Mode	distance of fibre optic cable is measured around 100 meters.
		100 Gbps		• High Speed • High Bandwidth • High Security
				Disadvantages: • expensive • requires skilled installers

STUDENT OBSERVATION:

- (1) Difference between Cross Cable and Straight Cable.
- A straight cable connects different devices, while cross cable connects the similar devices by swapping transmit and receive wires.
- (2) Which type of cable is used to connect two PC?
- Cross cable is used to connect two PC's
- (3) Which cable is used to connect a router to PC?
- Straight cable is used to connect a router to a PC.
- (4) Find the category of twisted pair cables used to connect the PC to network socket?
- Category 5e and Category 6 are used to connect the PC to network socket.
- (5) Write down understanding, challenges faced and output received?
- ⇒ learnt the colour codes and standards
 - ⇒ difficulty in arranging wires in correct order.
 - ⇒ successfully made working cables that connected devices and enable proper network communication.

more stuff was no. demanded. lot of
information (not available)

skelton's last went back at about 0700.
earlier visitors will have
been seen by skelton's (0700)
earlier visitors (0700) were seen by
skelton's (0700)

the next morning skelton's left 0800
earlier visitors (0700) were seen by
skelton's (0700) left 0800
earlier visitors (0700) were seen by
skelton's (0700) left 0800
earlier visitors (0700) were seen by
skelton's (0700) left 0800

(0800) skelton's no diff. s.
at 0800 skelton's no diff. (0800)
earlier visitors (0700) were seen by
skelton's (0700) left 0800
earlier visitors (0700) were seen by
skelton's (0700) left 0800
earlier visitors (0700) were seen by
skelton's (0700) left 0800

Result:-
Hence, the different types of network calls
have been successfully studied.

On 10/10/06