RAMA UNIVERSITY

www.ramauniversity.ac.in

FACULTY OF ENGINEERING & TECHNOLOGY

BCA-302Computer Networks

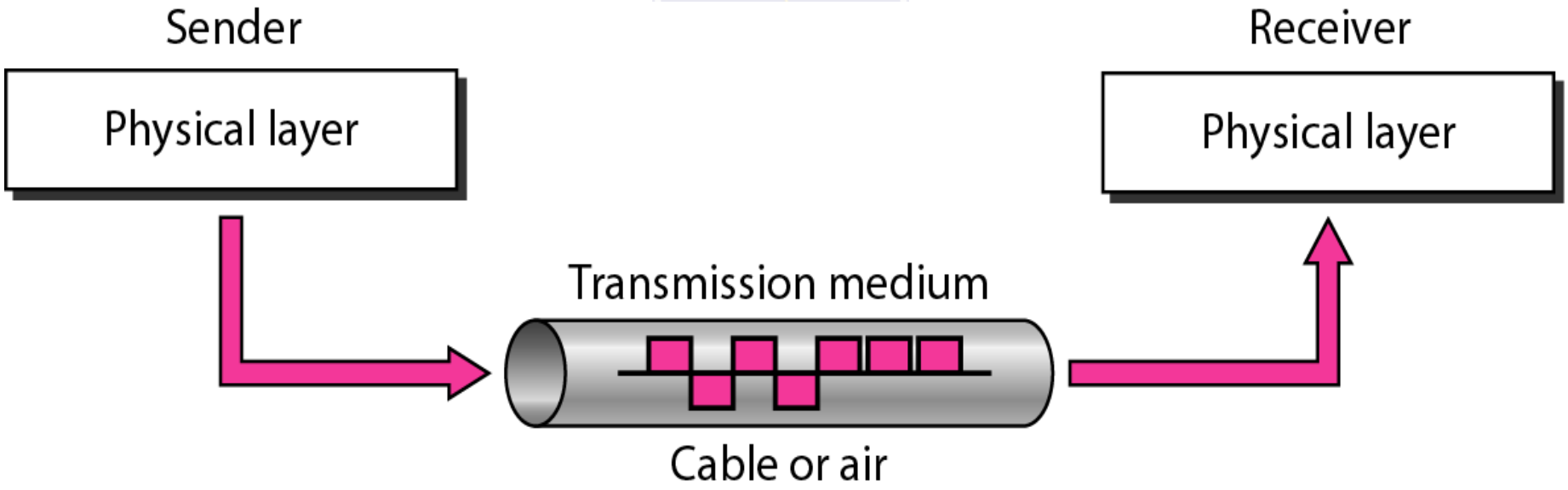
Lecture-08

Mr. Dilip Kumar J Saini
Assistant Professor
Computer Science & Engineering

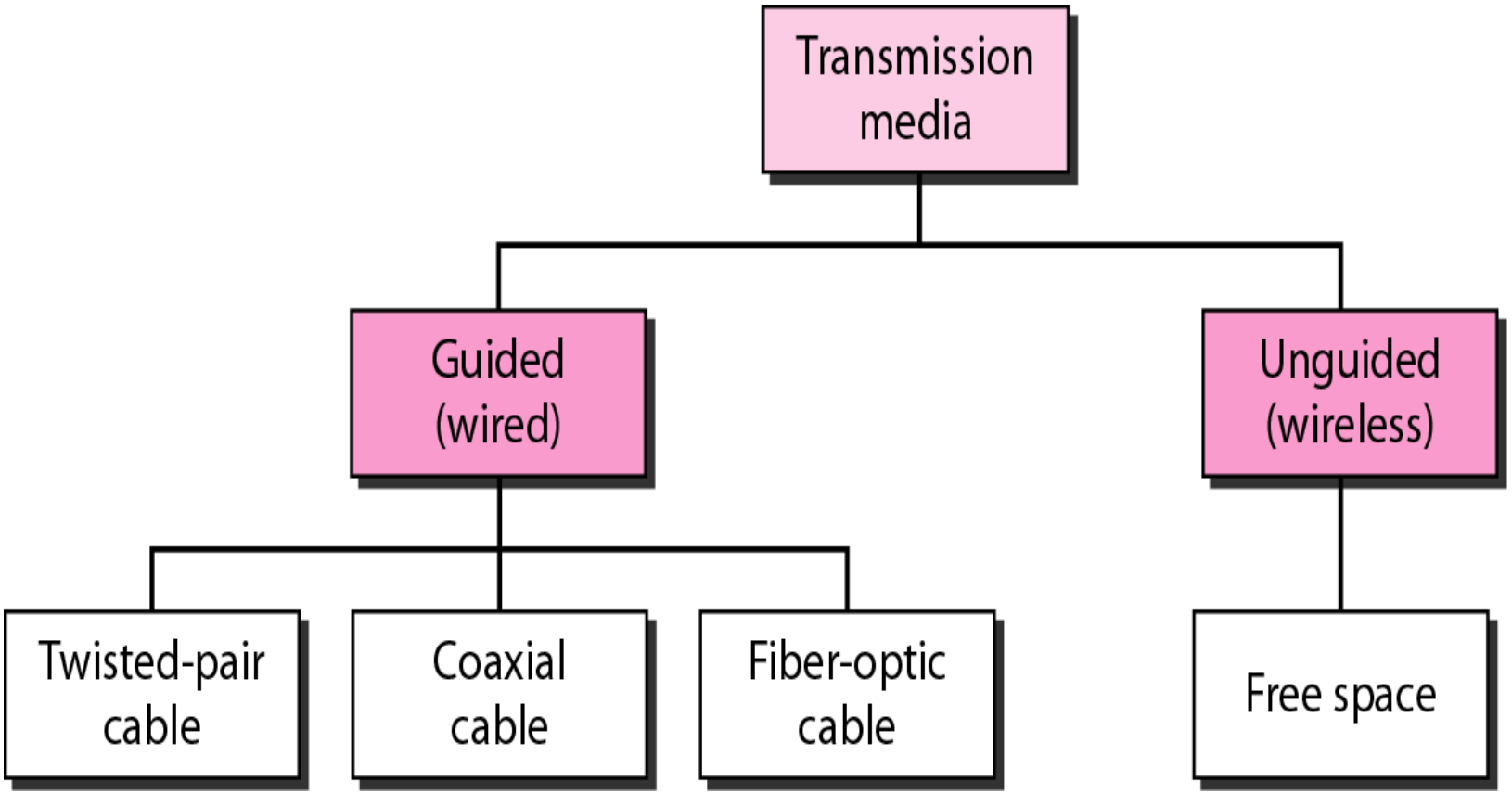
OUTLINE

- TRANSMISSION MEDIA
- TRANSMISSION MEDIUM AND PHYSICAL LAYER
- CLASSES OF TRANSMISSION MEDIA
- GUIDED MEDIA

TRANSMISSION MEDIUM AND PHYSICAL LAYER



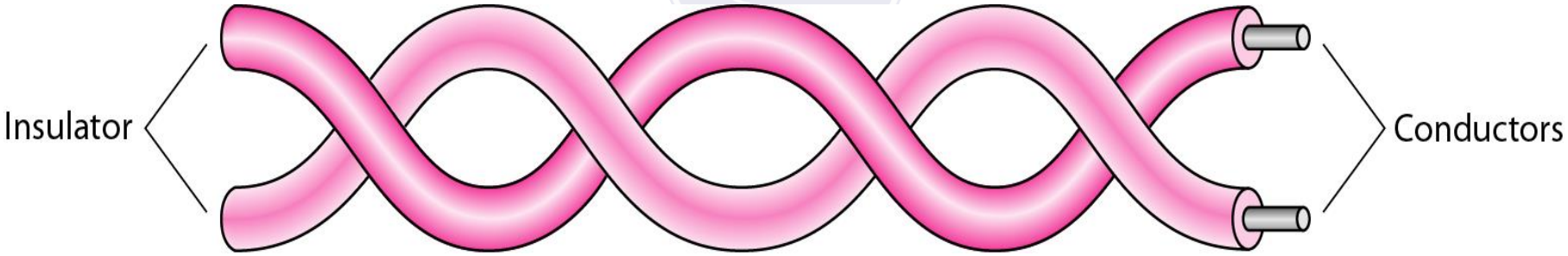
CLASSES OF TRANSMISSION MEDIA



GUIDED MEDIA

Guided media, which are those that provide a conduit from one device to another, include twisted-pair cable, coaxial cable, and fiber-optic cable.

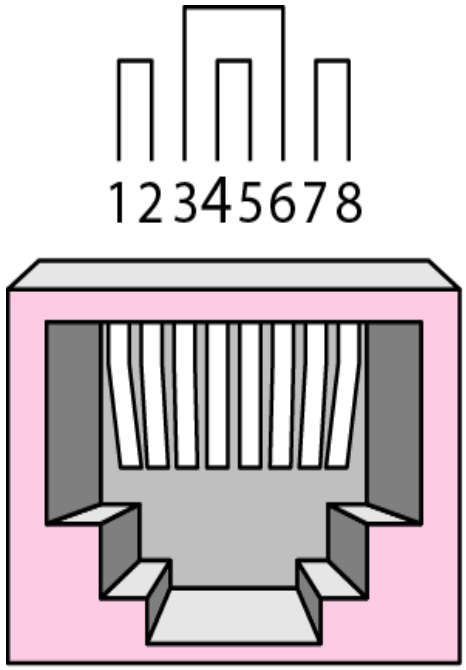
TWISTED-PAIR CABLE



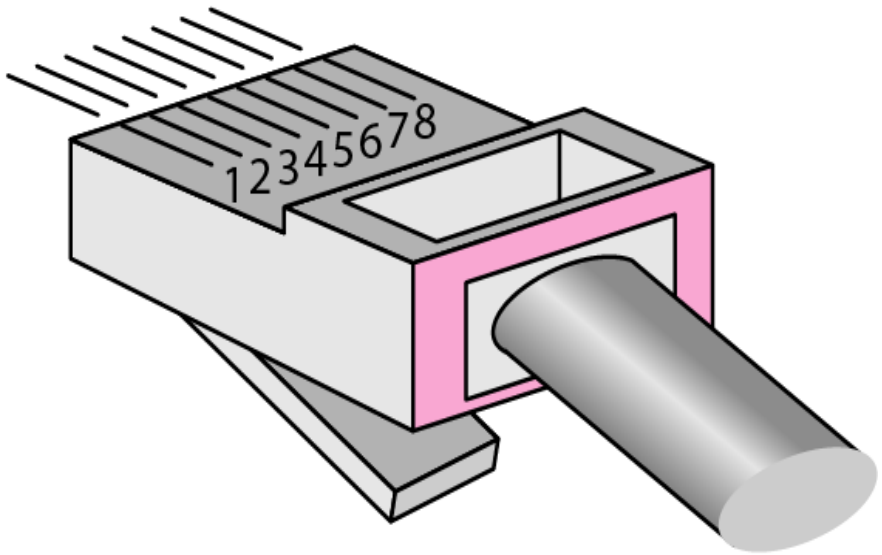
CATEGORIES OF UNSHIELDED TWISTED-PAIR CABLES

Category	*Specification*	*Data Rate (Mbps)*	*Use*
1	Unshielded twisted-pair used in telephone	< 0.1	Telephone
2	Unshielded twisted-pair originally used in T-lines	2	T-1 lines
3	Improved CAT 2 used in LANs	10	LANs
4	Improved CAT 3 used in Token Ring networks	20	LANs
5	Cable wire is normally 24 AWG with a jacket and outside sheath	100	LANs
5E	An extension to category 5 that includes extra features to minimize the crosstalk and electromagnetic interference	125	LANs
6	A new category with matched components coming from the same manufacturer. The cable must be tested at a 200-Mbps data rate.	200	LANs
7	Sometimes called SSTP (shielded screen twisted-pair). Each pair is individually wrapped in a helical metallic foil followed by a metallic foil shield in addition to the outside sheath. The shield decreases the effect of crosstalk and increases the data rate.	600	LANs

UTP CONNECTOR



RJ-45 Female



RJ-45 Male

Multiple Choice Question

MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	How many layers are present in the Internet protocol stack (TCP/IP model)?	5	7	6	10
2	Which of the following layers is an addition to OSI model when compared with TCP IP model?	Application layer	Presentation layer	Session layer	Session and Presentation layer
3	Application layer is implemented in _____	End system	NIC	Ethernet	Packet transport
4	Transport layer is implemented in _____	End system	NIC	Ethernet	Packet transport
5	The functionalities of the presentation layer include _____	Data compression	Data encryption	Data description	All of the mentioned

REFERENCES

- http://www.engppt.com/2009/12/networking-fourozan-ppt-slides.html