

### DATA COMMUNICATIONS AND COMPUTER NETWORKS

#### (23EC506) UNIT WISE QUESTION BANK

#### UNIT-I

S.No	Questions	BT	CO	PO
<b>Part – A (Short Answer Questions)</b>				
1	What are the components of data communication?	L1	CO1	PO1
2	Define simplex, half-duplex, and full-duplex modes.	L1	CO1	PO1
3	List the types of computer networks.	L1	CO1	PO1
4	What are the different types of network topologies?	L1	CO1	PO1
5	Define protocols and standards with examples.	L1	CO1	PO1
6	Explain the purpose of the OSI model.	L1	CO1	PO1
7	List any two example networks and their uses.	L1	CO1	PO1
8	What is multiplexing? Name its types.	L1	CO1	PO1
9	Define circuit switching and packet switching.	L1	CO1	PO1
10	What is virtual circuit switching?	L1	CO1	PO1
<b>Part – B (Long Answer Questions)</b>				
11	a) Explain in detail the components and categories of computer networks.	L2	CO1	PO1, PO2
	b) Discuss the direction of data flow in communication systems.	L2	CO1	PO1, PO2
12	a) Explain different types of network topologies.	L2	CO1	PO1, PO2
	b) Compare star, bus, and ring topologies.	L2	CO1	PO1, PO2
13	a) Compare and contrast ATM, ISDN and Frame Relay. Explain their working principles.	L2	CO1	PO1, PO2
	b) Discuss guided and unguided transmission media with examples.	L2	CO1	PO1, PO2
14	a) Compare circuit-switched, datagram, and virtual-circuit networks.	L2	CO1	PO1, PO2
	b) Describe the working of datagram and virtual circuit networks.	L2	CO1	PO1, PO2
15	a) Define the physical layer and its functions.	L2	CO1	PO1, PO2
	b) Describe the working of frame relay and ATM. Compare them based on performance and usage.	L2	CO1	PO1