



SARASWATI Education Society's
SARASWATI Institute of Technology

Learn Live Achieve and Contribute

Kharghar, Navi Mumbai - 410 210.

Information Technology Department

Name of Programme: - IF

**Name of Course: -Data Communication and Computer Network
(SEM-IV Summer-2026)**

Course Outcome. –Analyze the functioning of Data Communication and Computer Network

Assignment –I

2 Marks Questions

- a) Define Computer Network.
- b) Define the following terms: i) Protocol ii) Bandwidth
- c) Define : i) Bit Rate ii) Baud Rate
- d) Name the components of data communication.
- e) State any two needs of Computer Network.

4 Marks Questions.

- a) Describe with neat diagram modes of communication.
- b) Compare the LAN, MAN, WAN (4 points with parameters).
- c) Differentiate between analog signal and digital signal. (4 points with parameters).
- d) State the advantages and disadvantages of Computer Network.

Assign By-Mrs.Nutan Purkar



SARASWATI Education Society's
SARASWATI Institute of Technology

Learn Live Achieve and Contribute

Kharghar, Navi Mumbai - 410 210.

Information Technology Department

Name of Programme: - IF

**Name of Course: -Data Communication and Computer Network
(SEM-IV Summer-2026)**

Course Outcome. –Select relevant Transmission media and switching technique.

Assignment –II

2 Marks Questions

- a) Compare Guided and Unguided transmission media.
- b) State any two types of Unguided Media.
- c) Draw a neat labelled diagram of coaxial cable.
- d) List the types of Guided Transmission Media.
- e) Draw a neat labelled diagram of UTP cable.
- f) Draw a neat labelled diagram of Satellite Communication.

4 Marks Questions.

- a) Draw and explain fibre optic cable with its types.
- b) Define Multiplexing .Explain Frequency Division Multiplexing with neat diagram.
- c) Describe Satellite Communication with neat diagram.
- d) Describe the principles of packet switching techniques with neat diagram.
- f) Compare twisted pair cable,coaxial cable and fibre optic cable.

Assign By-Mrs.Nutan Purkar



SARASWATI Education Society's
SARASWATI Institute of Technology

Learn Live Achieve and Contribute

Kharghar, Navi Mumbai - 410 210.

Information Technology Department

Name of Programme: - IF

**Name of Course: -Data Communication and Computer Network
(SEM-IV Summer-2026)**

Course Outcome. –Analyze the Transmission Errors with respect to IEEE standards.

Assignment –III

2 Marks Questions

- a)List different types of errors.
- b)State any two limitations of Bluetooth.
- c)Describe Single bit error and burst error.
- d)List IEEE 802.11 standards for Network.
- e)Define Error.

4 Marks Questions.

- a)Explain Bluetooth architecture with a neat diagram.
- b)Describe the terms:i)Wireless LAN ii)Mobile Generations.
- c)Describe Various Mobile generations in detail.
- d)Draw the architecture of wireless LAN 802.11 and explain

Assign By-Mrs.Nutan Purkar



SARASWATI Education Society's
SARASWATI Institute of Technology

Learn Live Achieve and Contribute

Kharghar, Navi Mumbai - 410 210.

Information Technology Department

Name of Programme: - IF

**Name of Course: -Data Communication and Computer Network
(SEM-IV Summer-2026)**

Course Outcome. –Configure different TCP/IP Services

Assignment –IV

2 Marks Questions.

- a)List the classes of IP addresses.
- b)State the services of transport layer in OSI model.
- c)List any four application layer protocol.
- d)Name the layer which is associated with transmission media.
- e)Define Data Encapsulation and Subnet.

4 Marks Questions.

- a)With suitable diagram describe TCP/IP reference model.
- b)Compare OSI reference model and TCP/IP reference model.
- c)Describe the Process of DHCP server Configuration.
- d)Compare IPv4 and IPv6 (any six)
- e)Explain the function of presentation layer and Network later.

Assign By-Mrs.Nutan Purkar



SARASWATI Education Society's
SARASWATI Institute of Technology

Learn Live Achieve and Contribute

Kharghar, Navi Mumbai - 410 210.

Information Technology Department

Name of Programme: - IF

**Name of Course: -Data Communication and Computer Network
(SEM-IV Summer-2026)**

Course Outcome. –Implementing relevant Network Topology using Networking Devices.

Assignment –V

2 Marks Questions

- a)List different types of network connecting devices.
- b)State the function of repeater and modem.
- c)List networking topologies.
- d)Define the topology.
- e)Draw the diagram of Tree topology.

4 Marks Questions.

- a)Compare peer-to-peer network and client server network.
- b)Explain mesh topology with suitable diagram .
- c)Explain with the neat sketch the working of Router and Switch.
- d)Explain the working of bridge and Gateway.
- e)With suitable diagram describe.i)Star topology ii)Bus topology

Assign By-Mrs.Nutan Purkar