Information Technology Department

Name of Programme: - IF

Name of Course: -Data Communication and Computer   Network
(SEM-IV Summer-2025)

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.

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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.

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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)Describr 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 neat diagram.

b)Describe the terms:i)Wireless LAN ii)Molile Generations.

c)Describe Various Mobile generations in detail.

d)Draw the architecture of wireless LAN 802.11 and explain

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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.

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b

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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)Explan 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

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