

Class Test – II- Question Bank

Data Communication and Computer Network (22414)

- 1) Define Piconet and Scatternet.
 - 2) List Mobile Generations with their application.
 - 3) Draw the Bluetooth architecture and describe its working.
 - 4) List any four Network Connecting Devices.
 - 5) Differentiate between Hub & Switch on the basis of layer, ports, device type, and speed.
 - 6) Describe functions of switch with its advantages and disadvantages.
 - 7) Draw & describe the connecting devices required for LAN for an organization using Tree topology.
 - 8) Draw and describe architecture for network using tree topology for an office in 3-storey's building.
 - 9) Identify appropriate network topology and network connecting devices for following requirement. Draw network design for proposed network.
An organization having its office in a building of 5 floor. Each floor it needs 20 PCs. There is one file server. Each floor has two print servers to facilitate printer capacity.
 - 10) Differentiate between ring and bus topology.
 - 11) With suitable diagram describe:
 - a) Star Topology
 - b) Ring Topology.
 - c) Hybrid Topology.
 - 12) List the advantages and disadvantages of bus topology?
 - 13) Describe functions of router with its advantages and disadvantages.
 - 14) Compare router and repeater.
 - 15) Write following specification of smart hub:
 - a) Protocols
 - b) Radio Bands
 - 16) State use of following devices.
 - a) Gateway.
 - b) Bridge.
 - 17) Why layering is used in ISO OSI Reference Model.
 - 18) Describe Peer-to-Peer Processes in OSI Reference Model.
 - 19) State functions of Transport Layer of OSI model.
 - 20) List the protocols and devices of following OSI layers:
 - a) Network Layer.
 - b) Data Link Layer.
 - 21) Describe major functions of network layer in TCP/IP protocol suite.
 - 22) Describe functions of physical layer and data link layer of OSI model.
 - 23) Describe encapsulation and decapsulation process with diagram.
 - 24) Draw and explain layered architecture of OSI Reference Model.
- OR
- List all layers of OSI model & state its function
- 25) Give the names of OSI layer where following protocols are relate/belong to:
 - a) SMTP
 - b) TCP-UDP
 - c) IP
 - d) PPP
 - 26) Describe classes of IPv4 addresses with its range.
 - 27) Draw & explain TCP/IP protocol suite.
 - 28) Compare OSI and TCP/IP reference model.
 - 29) Explain configuration of TCP/IP protocol in network. / Write the steps for configuration of TCP/IP protocol in network.
 - 30) Describe the process DHCP server configuration.
 - 31) What is static and dynamic IP address? Describe process of DHCP for assigning IP address.
