## Assignment-1

(ISO-OSI and TCP/IP models, basic concepts like transmission media, Overview of LAN/WAN/MAN, Application layer protocol)

Q 1. Coaxial cable consists of concentric copper conductors

- a. 1
- b. 2
- c. 3
- d. 4

Q 2. Bits can be send over guided and unguided media as analog signal by

- a. digital modulation
- b. amplitude modulation
- c. frequency modulation
- d. phase modulation
- Q 3. Data communication system spanning states, countries, or the whole world is a.
  - LAN
  - b. WAN
  - c. MAN
  - d. None of the above
- Q 4. Which layers of the OSI model are host-to-host layers?
  - a. Transport, Session, Presentation, Application
  - b. Network, Transport, Session, Presentation
  - c. Datalink, Network, Transport, Session
  - d. Physical, Datalink, Network, Transport
- Q 5. What is internet?
  - a. a single network
  - b. a vast collection of different networks
  - c. interconnection of local area networks
  - d. None of the above
- Q 6. physical layer provides
  - a. mechanical specifications of electrical connectors and cables
  - b. electrical specification of transmission line signal level
  - c. specification for IR over optical fiber
  - d. All of the above
- Q 7. Fiber optics posses following properties
  - a. Immune electromagnetic interference
  - a. Very less signal attenuation
  - b. Very hard to tap
  - c. All of the above
- Q 8. What is the meaning of Bandwidth in Network?
  - a. Transmission capacity of a communication channels
  - b. Connected Computers in the Network
  - c. Class of IP used in Network
  - d. None of Above
- Q 9. UTP is commonly used in
  - a. DSL
  - b. FTTP
  - c. HTTP
  - d. None of the above
- Q 10. What is the benefit of the Networking?
  - a. File Sharing
  - b. Easier access to Resources
  - c. Easier Backups
  - d. All of the Above

- Q 11. Which of this is not a guided media?
  - a. Fiber optical cable
  - b. Coaxial cable
  - c. Wireless LAN
  - d. Copper wire
- Q 12. High speed ethernet works on
  - a. coaxial cable
  - b. twisted pair cable
  - c. optical fiber
  - d. None of the above
- Q 13. How many layers are in the TCP/IP model?
  - a. 4
  - b. 5
  - c. 6
  - d. 7
- Q 14. Bluetooth is an example of
  - a. personal area network
  - b. local area network
  - c. virtual private network
  - d. None of the above
- Q 15. The physical layer concerns with
  - a. bit-by-bit delivery
  - b. process to process delivery
  - c. application to application delivery
  - d. None of the above
- Q 16. Communication channel is shared by all the machines on the network in
  - a. broadcast network
  - b. unicast network
  - c. multicast network
  - d. None of the above
- Q 17. In this topology there is a central controller or hub
  - a. Star
  - b. Mesh
  - c. Ring
  - d. Bus
- Q 18. Data communication system within a building or campus is
  - a. LAN
  - b. WAN
  - c. MAN
  - d. None of the above
- Q 19. What does protocol defines?
  - a. Protocol defines what data is communicated.
  - b. Protocol defines how data is communicated.
  - c. Protocol defines when data is communicated
  - d. All of above
- Q 20. This topology requires multipoint connection
  - a. Star
  - b. Mesh
  - c. Ring
  - d. Bus

- Q 21. Radio channels are attractive medium because
  - a. Can penetrate walls
  - b. Connectivity can be given to mobile user
  - c. Can carry signals for long distance
  - d. All of the above
- Q 22. A list of protocols used by a system, one protocol per layer, is called
  - a. protocol architecture
  - b. protocol stack
  - c. protocol suit
  - d. None of the above
- Q 23. When collection of various computers seems a single coherent system to its client, then it is called
  - a. Computer Network
  - b. Distributed System
  - c. Both of the above
  - d. None of the above
- Q 24. Which of the following layer of OSI model also called end-to-end layer?
- a. Presentation layer
  - b. Network layer
  - c. Session layer
  - d. Transport layer
- Q 25. Computer Network is
  - a. Collection of hardware components and computers
  - b. Interconnected by communication channels
  - c. Sharing of resources and information
  - d. All of the Above
- Q 26. What do you mean by broadcasting in Networking?
  - a. It means addressing a packet to all machine
  - b. It means addressing a packet to some machine
  - c. It means addressing a packet to a particular machine
  - d. It means addressing a packet to except a particular machine
- Q 27. Physical or logical arrangement of network is
  - a. Topology
  - b. Routing
  - c. Networking
  - d. None of the above
- Q 28. Which of the following is/are Protocols of Application?
  - a. FTP
  - b. DNS
  - c. HTTPS
  - d. All of above
- Q 29. Two devices are in network if
  - a. a process in one device is able to exchange information with a process in
  - b. a process is running on both devices
  - c. PIDs of the processes running of different devices are same
  - d. None of the above
- Q 30. How many layers does OSI Reference Model has?
  - a. 4
  - b. 5
  - c. 6
  - d. 7

## Short answer Questions

- Q 1. Mention the different physical media with their characteristics?
- Q 2. What is topology? Explain different type of topologies with their advantages and disadvantages.
- Q 3. How does NRZ-L differ from NRZ-I?
- Q 4. Define Bandwidth and Latency.
- Q 5. Name two layers of TCP/IP model that are not present in OSI model. Which layer does their work?
- Q 6. Describe the features of LAN.
- Q 7. Mention the need for domain name system.
- Q 8. Discuss the function and structure of e-mail protocol.