

National Institute of Open Schooling
Senior Secondary Course: Computer Science
Lesson 5: Data Communication and Networking
Worksheet - 5

1. In this pandemic, when people have been forced to stay indoors which methods of data communication are being used most? Why?
2. Classify the following into simplex, half duplex and full duplex with appropriate reasons:
 - a. Webinar
 - b. Videoconference where only one person speaks at a time
 - c. An informal meeting of friends through video conferencing.
3. Cite an example to explain the various components of data communication.
4. Establish a relationship between data communication and networking using any real-life situation that you have come across.
5. Veena plays sitar. The sound of her sitar weakens after some distance. Arun blew a whistle for PT sessions. It was observed that the whistle sound could be heard from a longer distance. Why? (Hint: Is there some relationship between short sound bursts and length travelled?)
6. Categorize the following with respect to the EM spectrum of the communication devices:
 - a. TV
 - b. Satellite
 - c. Radio/TV
7. Every Internet service provider nowadays is synonymous to broadband. What is broadband?
8. Suppose you are entrusted with the decision to decide the type of communication medium to setup a network between two branches of a bank. The bank tells you that it wants very high-speed communication and hence the budget is not an issue. Which communication medium will you offer them? Why? Also, which type of network is formed in this case (LAN/MAN/WAN)?
9. Anvesha has observed that when she enables her Wi-Fi connection, she is able to see a few more names other than hers in the Wi-Fi list. What could be the reason? Can you access any of the connection in the list? Explain
10. With the help of a diagram explain the various networking devices and their usage and relationship (if any) with each other to ensure data communication over a network.