



Name of the Bundle	Proficient Bundle V1	Subject	Networking V1
Topic	Data Communication	Last updated on	11 September 2025

Multiple Choice Questions on Data Communication:

1. What is data communication?

- A. Watching TV
- B. Exchanging data between devices
- C. Printing photos
- D. Charging a mobile phone

Answer: B. Exchanging data between devices

Explanation: Data communication involves transferring information between devices over a medium.

2. What is commonly used as a transmission medium for data communication?

- A. Sound waves only
- B. Paper documents
- C. Cables or wireless signals
- D. Physical gestures

Answer: C. Cables or wireless signals

Explanation: Data can be transmitted using wired (like Ethernet cables) or wireless (like Wi-Fi) methods.



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3. Which of the following is not a form of data communication?

- A. Sending an email
- B. Uploading a file
- C. Talking face-to-face
- D. Downloading a video

Answer: C. Talking face-to-face

Explanation: Face-to-face communication is verbal, not digital data exchange between devices.

4. What device is required to transmit or receive data in communication?

- A. Microwave
- B. Mouse
- C. Computer or network device
- D. Keyboard

Answer: C. Computer or network device

Explanation: Devices like computers, routers, or phones are involved in sending and receiving data.



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5. Which of these is a wireless transmission medium?

- A. Ethernet cable
- B. Optical fiber
- C. Wi-Fi
- D. USB cable

Answer: C. Wi-Fi

Explanation: Wi-Fi is a wireless technology that transmits data using radio signals.

6. In data communication, what does the sender do?

- A. Stores the data
- B. Translates the message
- C. Initiates and transmits data
- D. Terminates the network

Answer: C. Initiates and transmits data

Explanation: The sender is the origin of the message in a communication process.



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7. What is the role of the receiver in data communication?

- A. Sends signals
- B. Creates the message
- C. Decodes and receives the message
- D. Stops communication

Answer: C. Decodes and receives the message

Explanation: The receiver accepts and processes the data sent by the sender.

8. Which of the following is a characteristic of effective data communication?

- A. Distortion
- B. Delay
- C. Accuracy
- D. Noise

Answer: C. Accuracy

Explanation: For communication to be effective, data must be accurately delivered without errors.



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9. What type of signal does wireless communication use?

- A. Water waves
- B. Magnetic tape
- C. Radio waves
- D. Morse code

Answer: C. Radio waves

Explanation: Wireless communication relies on radio frequency signals to transmit data.

10. Which of these best describes a transmission medium?

- A. A software program
- B. A message sender
- C. The physical or wireless path for data
- D. An email application

Answer: C. The physical or wireless path for data

Explanation: The transmission medium is what carries data, such as cables or air (for Wi-Fi).



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11. What is the role of the sender in data communication?

- A. To store information only
- B. To receive data only
- C. To create and transmit the message
- D. To encrypt the transmission medium

Answer: C. To create and transmit the message

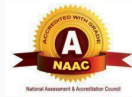
Explanation: The sender initiates communication by generating and sending data to a receiver.

12. Which of the following can act as a sender in a network?

- A. A microwave
- B. A smartphone
- C. A keyboard
- D. A mouse

Answer: B. A smartphone

Explanation: A smartphone can send data such as messages, calls, or files over a network.



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13. Which of these is not typically a sender in a network communication system?

- A. Computer
- B. Walkie-talkie
- C. Lightbulb
- D. Smartwatch

Answer: C. Lightbulb

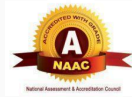
Explanation: A standard lightbulb does not transmit data unless it's a smart device with communication features.

14. Which of the following devices can act as both sender and receiver?

- A. Calculator
- B. Mobile phone
- C. Mouse
- D. Webcam

Answer: B. Mobile phone

Explanation: Mobile phones can both send and receive data like calls, messages, and internet traffic.



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15. A smartwatch sends health data to a smartphone app via ____.

- A. Laser
- B. Wired telephone line
- C. Bluetooth or Wi-Fi
- D. Satellite radio

Answer: C. Bluetooth or Wi-Fi

Explanation: Smartwatches typically use Bluetooth or Wi-Fi to send data to paired devices.

16. In a video call, your computer is acting as a ____.

- A. Data storage
- B. Receiver only
- C. Sender only
- D. Both sender and receiver

Answer: D. Both sender and receiver

Explanation: During a video call, devices are sending and receiving video and audio simultaneously.



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17. Which component of a computer helps in sending data over a network?

- A. Power supply
- B. Hard drive
- C. Network interface card (NIC)
- D. Monitor

Answer: C. Network interface card (NIC)

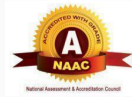
Explanation: The NIC enables computers to send and receive data on a network.

18. Which of the following best defines a sender?

- A. Any device that only stores data
- B. Any device that creates and transmits data
- C. Any user browsing the internet
- D. Any wireless antenna

Answer: B. Any device that creates and transmits data

Explanation: A sender is a source that generates and transmits data across a communication channel.



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19. What is the primary function of a receiver in data communication?

- A. To generate data
- B. To transmit signals
- C. To accept and process incoming data
- D. To store passwords

Answer: C. To accept and process incoming data

Explanation: A receiver accepts data sent by a sender and processes it accordingly.

20. Which of the following can act as a receiver in a network?

- A. Television
- B. Mouse
- C. Light switch
- D. Fan

Answer: A. Television

Explanation: A smart television can receive data (like video streams) over a network.



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21. In a wireless data transfer, a mobile phone receiving a file is functioning as_____.

- A. Sender
- B. Modem
- C. Receiver
- D. Keyboard

Answer: C. Receiver

Explanation: When receiving data, the mobile phone is acting as the receiver.

22. Which device receives data from a computer to print a physical copy?

- A. Monitor
- B. Scanner
- C. Printer
- D. Modem

Answer: C. Printer

Explanation: A printer receives data from a computer to produce hard copies.



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23. When a laptop downloads a file from the internet, what is its role?

- A. Sender
- B. Receiver
- C. Router
- D. Server

Answer: B. Receiver

Explanation: The laptop is receiving data from a remote source, acting as the receiver.

24. A computer that receives data from another computer in a LAN is called_____.

- A. Sender
- B. Receiver
- C. Router
- D. Hub

Answer: B. Receiver

Explanation: In this context, it plays the role of receiver, accepting data from the sender.



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25. Which of the following can act as both a sender and a receiver?

- A. Printer
- B. Computer
- C. Projector
- D. Speaker

Answer: B. Computer

Explanation: A computer can send and receive data, making it both sender and receiver.

26. What is a message in data communication?

- A. A device used for transmission
- B. The data or information being exchanged
- C. The transmission medium
- D. A coding language

Answer: B. The data or information being exchanged

Explanation: A message is the content (data or information) sent from sender to receiver.



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27. Which of the following can be a form of a message?

- A. Text
- B. Audio
- C. Video
- D. All of the above

Answer: D. All of the above

Explanation: A message can be text, audio, video, image, or number.

28. The message is created by_____.

- A. Receiver
- B. Transmission medium
- C. Sender
- D. Router

Answer: C. Sender

Explanation: The sender creates and transmits the message to the receiver.



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29. Which message type is used when you're having a phone call?

- A. Image
- B. Text
- C. Audio
- D. Number

Answer: C. Audio

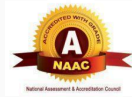
Explanation: Phone calls involve audio messages being exchanged between users.

30. What kind of message is a photograph sent over a messaging app?

- A. Audio
- B. Video
- C. Image
- D. Text

Answer: C. Image

Explanation: A photo is an image type of message.



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31. In digital communication, a message can be made up of ____.

- A. Numbers
- B. Letters
- C. Symbols
- D. All of the above

Answer: D. All of the above

Explanation: Messages can include numbers, letters, symbols, or any combination.

32. Which message type is typically used in a voice assistant response?

- A. Text
- B. Audio
- C. Image
- D. Number

Answer: B. Audio

Explanation: Voice assistants respond with audio, making it the message type in use.



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33. What is simplex communication?

- A. Data flows in both directions at the same time
- B. Data flows in both directions, but one at a time
- C. Data flows in only one direction
- D. No data flow at all

Answer: C. Data flows in only one direction

Explanation: In simplex mode, data travels from sender to receiver only.

34. Which of the following is an example of simplex communication?

- A. Phone call
- B. Walkie-talkie
- C. Television broadcast
- D. Chat application

Answer: C. Television broadcast

Explanation: A TV broadcast sends data one-way, from the station to the viewer.



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35. In half-duplex communication, data flows____.

- A. In one direction only
- B. In both directions, simultaneously
- C. In both directions, but only one at a time
- D. Only when a signal is weak

Answer: C. In both directions, but only one at a time

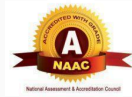
Explanation: Half-duplex allows two-way communication, but not at the same time.

36. Which is an example of half-duplex communication?

- A. Internet browsing
- B. Phone call
- C. Walkie-talkie
- D. Email

Answer: C. Walkie-talkie

Explanation: In a walkie-talkie, only one person can talk at a time – it's half-duplex.



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37. What is full-duplex communication?

- A. Data flows only one way
- B. Data flows both ways, one at a time
- C. Data flows both ways at the same time
- D. Data flows when allowed by a router

Answer: C. Data flows both ways at the same time

Explanation: Full-duplex allows simultaneous two-way communication.

38. Which device uses full-duplex communication?

- A. Television
- B. Walkie-talkie
- C. Telephone
- D. Radio

Answer: C. Telephone

Explanation: Telephones allow speaking and listening at the same time, which is full-duplex.



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39. Which of the following best describes simplex mode?

- A. Sender and receiver exchange data together
- B. Receiver can respond
- C. One-way communication
- D. Requires high-speed networks

Answer: C. One-way communication

Explanation: Simplex allows only one-directional data flow.

40. A keyboard sending data to a computer is an example of_____.

- A. Full-duplex
- B. Simplex
- C. Half-duplex
- D. Multiplex

Answer: B. Simplex

Explanation: The keyboard sends data to the computer, but does not receive data back.



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41. Which communication type offers the most efficiency?

- A. Half-duplex
- B. Simplex
- C. Full-duplex
- D. Manual communication

Answer: C. Full-duplex

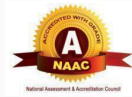
Explanation: Full-duplex allows data to be sent and received at the same time, increasing efficiency.

42. In simplex communication, which device sends the data?

- A. Both sender and receiver
- B. Receiver
- C. Sender
- D. Hub

Answer: C. Sender

Explanation: Only the sender transmits data in simplex communication.



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43. Which device typically works in simplex mode?

- A. Printer
- B. Scanner
- C. Keyboard
- D. Mouse

Answer: C. Keyboard

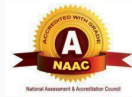
Explanation: A keyboard only sends data to the computer – the computer does not send anything back to the keyboard.

44. What kind of signal flow does simplex communication use?

- A. Bidirectional
- B. Unidirectional
- C. Multidirectional
- D. Circular

Answer: B. Unidirectional

Explanation: Simplex is unidirectional – data flows in only one direction.



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45. A radio station transmitting a live program is an example of_____.

- A. Half-duplex
- B. Full-duplex
- C. Simplex
- D. Multiplex

Answer: C. Simplex

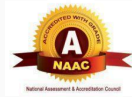
Explanation: The radio station broadcasts data one-way to the audience.

46. What is the key feature of half-duplex communication?

- A. Data flows in only one direction
- B. Data flows in both directions at the same time
- C. Data flows in both directions, but not at the same time
- D. No data flow

Answer: C. Data flows in both directions, but not at the same time

Explanation: In half-duplex, devices take turns sending and receiving data.



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47. Which of these best describes half-duplex communication?

- A. One-way only
- B. Two-way, one direction at a time
- C. Two-way, both directions at the same time
- D. Multi-directional

Answer: B. Two-way, one direction at a time

Explanation: Half-duplex allows bidirectional communication, but not simultaneously.

48. What is the main advantage of full-duplex communication?

- A. Lower cost
- B. One-way messaging
- C. Faster and more efficient data exchange
- D. Requires no protocol

Answer: C. Faster and more efficient data exchange

Explanation: Since both devices communicate at the same time, it's more efficient.



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49. In full-duplex mode, what is the nature of communication?

- A. One-way only
- B. Two-way, alternating
- C. Two-way, simultaneous
- D. Three-way

Answer: C. Two-way, simultaneous

Explanation: Full-duplex is bidirectional and simultaneous.

50. What kind of signal flow occurs in full-duplex communication?

- A. One-directional
- B. No signal flow
- C. Bi-directional at the same time
- D. Delayed signal only

Answer: C. Bi-directional at the same time

Explanation: Full-duplex communication enables both sending and receiving simultaneously.