

Zahid Notes

1st Year Computer Science

Chapter 6: Wireless Communications

Federal Board (FBISE) | Proper Notes for Exam Preparation

PROPER NOTES IN ENGLISH: Detailed explanations, examples, solved short and long answers, MCQs and a revision plan.

These notes are written in original words for practice and exam preparation. They are not a copy of the official textbook and they are not a board paper. Students should also read the textbook, because board questions come from the prescribed syllabus.

1. Introduction and Detailed Explanation

In wireless communication, data travels from one place to another without a wire, through the air. A mobile phone and Wi-Fi are common examples.

Wi-Fi is a wireless technology through which computers and mobiles connect to a network and the internet without a wire. Bluetooth is used to connect nearby devices, such as a mobile phone and earphones.

The advantage of wireless communication is that the user is not tied to one place. He can remain connected while moving. However, care must be taken about weak signals and security.

Wi-Fi in Detail

Wi-Fi works through a wireless router. The router connects to the internet by wire, and then sends signals in the air. Devices near the router catch these signals and connect to the internet. The range of Wi-Fi is limited, usually to a home, office or school building.

Bluetooth in Detail

Bluetooth is made for short distances, usually only a few metres. It is used for earphones, speakers, keyboards and sharing small files between nearby devices. It uses less power than Wi-Fi, which is why it is useful for small devices.

2. Important Definitions

Wireless Communication

Sending and receiving data without a wire.

Wi-Fi

Wireless technology that connects devices to a network and the internet without a wire.

Bluetooth

Technology for wireless connection between nearby devices.

Signal

Waves through which wireless data travels from one place to another.

3. Solved Short Questions

Q1. What is wireless communication?

It is the transfer of data from one place to another without a wire.

Q2. What is Wi-Fi used for?

It is used to connect devices to the internet and a network without a wire.

Q3. What is Bluetooth used for?

It is used to connect nearby devices, such as a mobile phone and earphones.

Q4. Give one advantage and one disadvantage of wireless communication.

Advantage: A user can remain connected while moving. Disadvantage: The signal can become weak.

4. Solved Long Questions

Q1. Explain wireless communication with the examples of Wi-Fi and Bluetooth.

In wireless communication, data is sent through signals in the air instead of through wires. Wi-Fi is used to connect computers and mobiles to the internet without a wire. It works through a router and covers a home or office. Bluetooth is used for nearby devices only, such as earphones and speakers, and it works over a short distance. The main advantage of wireless communication is freedom of movement. Its main problems are weak signals and the need for security, because signals in the air can be caught by others if they are not protected.

5. MCQs, Fill in the Blanks and True / False

1. Communication without a wire is:

- A. Wired
- B. Wireless
- C. Printer
- D. ROM

Correct answer: B

2. Through Wi-Fi, a device gets:

- A. Printing
- B. Internet without a wire
- C. Electricity
- D. Deleted data

Correct answer: B

6. Important Points and Revision Plan

Wireless = without a wire

Wi-Fi = for internet, Bluetooth = for nearby devices

- Read the detail once and write the definitions in your own words.
- Write the short and long answers yourself, then match them with the notes.
- Solve the MCQs and read the important points box again before the test.