

WiFi Training Program 2025

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Question-9:

What is the difference between MIMO and MU-MIMO?

Differences:

| Feature | MIMO (Multiple Input, Multiple Output) | MU-MIMO (Multi-User MIMO) |
|-------------------|---|---|
| Full Form | Multiple Input, Multiple Output | Multi-User Multiple Input, Multiple Output |
| Purpose | Increases speed & reliability for a single user | Increases efficiency by serving multiple users at once |
| Users | One user at a time | Multiple users at the same time |
| In Wi-Fi | 802.11n (Wi-Fi 4) | 802.11ac (Wi-Fi 5) — downlink 802.11ax (Wi-Fi 6) — uplink & downlink |
| Transmission Type | Point-to-point | Point-to-multi-point |
| Antenna Usage | All antennas focus on one user | Antennas are shared across users simultaneously |
| Efficiency | Lower (one user at a time) | Higher (better for dense environments) |
| Downlink Support | Yes | Yes |
| Uplink Support | No | Yes (introduced in Wi-Fi 6) |