

# Quiz 4

- Due No due date
- Points 15
- Questions 15
- Available Apr 22 at 8:12pm - Apr 22 at 8:27pm 15 minutes
- Time Limit None

This quiz was locked Apr 22 at 8:27pm.

## Attempt History

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	3 minutes	12 out of 15

Score for this quiz: 12 out of 15

Submitted Apr 22 at 8:15pm

This attempt took 3 minutes.



Question 1

1 / 1 pts

In the context of cellular networks, what does the term "cell" refer to?

Correct!

- ☒ The geographic area covered by a base station
- ☐ The physical device used for making calls
- ☐ The frequency band allocated to a particular user
- ☐ The process of handing off calls between different towers



Question 2

1 / 1 pts

Which cellular generation introduced digital voice transmission?

Correct!

- ☒ 2G
- ☐ 1G
- ☐ 3G
- ☐ 5G



### Question 3

1 / 1 pts

What is the main advantage of 5G technology compared to previous generations?

Correct!

- ☒ Faster data speeds and lower latency
- ☐ Improved voice quality and coverage
- ☐ Higher capacity for simultaneous connections
- ☐ Enhanced security and encryption



### Question 4

1 / 1 pts

What is the purpose of traffic engineering in cellular networks?

Correct!

- ☒ Planning and managing the flow of data within the network
- ☐ Optimizing the allocation of frequencies for different users
- ☐ Handing off calls between different base stations seamlessly
- ☐ Providing encryption and security for mobile phone calls



### Question 5

1 / 1 pts

What is handoff in cellular networks?

Correct!

- ☒ Handing over a call from one cell to another as a user moves
- ☐ Transferring a call from one mobile phone to another
- ☐ Switching between different cellular technologies
- ☐ Changing the frequency allocation for a particular call



### Question 6

1 / 1 pts

Which of the following is not a characteristic of 5G technology?

Correct!

- ☒ Improved battery life for mobile devices

- ☐ Lower latency and reduced network congestion
- ☐ Higher frequency bands for data transmission
- ☐ Support for a massive number of simultaneous connections



#### Question 7

1 / 1 pts

Which of the following is not a component of a cellular network?

Correct!

- ☒ Central server
- ☐ Base station
- ☐ Mobile phone
- ☐ Satellite



#### Question 8

1 / 1 pts

Which cellular technology is based on analog transmission?

Correct!

- ☒ 1G
- ☐ 2G
- ☐ 3G
- ☐ 4G



#### Question 9

1 / 1 pts

How does a mobile phone call take place in a cellular network?

Correct!

- ☒ The call is relayed between base stations and the mobile phone
- ☐ The call is transmitted directly through satellites
- ☐ The call is routed through a central server
- ☐ The call is converted into digital data and transmitted as packets



### Question 10

1 / 1 pts

What is the main goal of traffic engineering in cellular networks?

Correct!

- ☒ Optimizing network resources for efficient data transmission
- ☐ Allocating frequencies for different cellular technologies
- ☐ Minimizing the latency for voice calls
- ☐ Maximizing the number of users connected to a single cell



### Question 11

0 / 1 pts

In the context of handover between base stations in the same cellular network, what does the Handover Request (HR) message contain?

You Answered

- ☒ a) Pre-allocated radio time slots for the mobile device

Correct Answer

- ☐ b) Information about the target base station
- ☐ c) Encryption keys for secure communication
- ☐ d) Control-plane configuration details for the MME



### Question 12

0 / 1 pts

What is the primary concern addressed in the concept of mobility in wireless networks?

You Answered

- ☒ a) Signal strength optimization
- ☐ b) Network security enhancement

Correct Answer

- ☐ c) Seamless device movement between networks
- ☐ d) Data encryption efficiency



### Question 13

0 / 1 pts

How does mobility and wireless communication impact higher-layer protocols like TCP and UDP?

You Answered

- ☒ a) It improves congestion control mechanisms in TCP
- ☐ b) It reduces delay impairments for real-time traffic.

Correct Answer

- ☐ c) It may lead to packet loss and delay due to handover loss and bit-errors
- ☐ d) It increases the available bandwidth for wireless links



Question 14

1 / 1 pts

What is the primary technique used in LTE to allocate frequency channels efficiently?

- ☐ a) FDMA
- ☐ b) TDMA
- ☐ c) CDMA

Correct!

- ☒ d) OFDM



Question 15

1 / 1 pts

How does LTE handle device mobility between cells?

- ☐ a) By assigning new IP addresses to devices.

Correct!

- ☒ b) By utilizing tunneling protocols for seamless handovers
- ☐ c) By disconnecting and reconnecting devices to the network
- ☐ d) By relying solely on the physical layer for mobility management

Quiz Score: 12 out of 15