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# Quiz: Module 4

**Latest Submission Grade 100%**

**1.** What is true about mmWave? **1 / 1 point**

- ○ A: Each wavelength is 100 millimeters
- ◉ B: Its wavelength is only a few millimeters
- ○ C: The frequency is measured in millimeters
- ○ D: The frequency increases every millimeter

**Correct**
Congratulations! Choice (B) is the correct response. The wavelength of mmWave is a few millimeters.

**2.** Select challenges faced by mmWave: (select all that apply) **3 / 3 points**

- ☑ A: Inferior propagation due to higher frequency

**Correct**
Congratulations! Choices (A, B, and D) are the correct responses. Inferior propagation, building propagation, and rain attenuation are all challenges faced by mmWave.

- ☑ B: Building propagation loss

**Correct**
Congratulations! Choices (A, B, and D) are the correct responses. Inferior propagation, building propagation, and rain attenuation are all challenges faced by mmWave.

- ☐ C: Low bandwidth
- ☑ D: Rain attenuation

**Correct**
Congratulations! Choices (A, B, and D) are the correct responses. Inferior propagation, building propagation, and rain attenuation are all challenges faced by mmWave.

**3.** Select key advantages offered by mmWave: (select all that apply) **4 / 4 points**

- ☑ A: Large bandwidth

**Correct**
Congratulations! Choices (A, B, C, and D) are the correct responses. Large bandwidth, directivity, higher gain, and better spatial reuse are all advantages offered by mmWave. All choices must be selected to get credit.

- ☑ B: Better signal focus (directivity)

**Correct**
Congratulations! Choices (A, B, C, and D) are the correct responses. Large bandwidth, directivity, higher gain, and better spatial reuse are all advantages offered by mmWave. All choices must be selected to get credit.

- ☑ C: Higher gain due to ability to accommodate more antennas

**Correct**
Congratulations! Choices (A, B, C, and D) are the correct responses. Large bandwidth, directivity, higher gain, and better spatial reuse are all advantages offered by mmWave. All choices must be selected to get credit.

- [x] D: Better spatial reuse

**Correct**
Congratulations! Choices (A, B, C, and D) are the correct responses. Large bandwidth, directivity, higher gain, and better spatial reuse are all advantages offered by mmWave. All choices must be selected to get credit.

**4.** Which of the following statements are true for mmWave deployments? **2 / 2 points**

- ○ A: mmWave is only viable for outdoor deployments
- ○ B: mmWave is only viable for indoor deployments
- ○ C: mmWave is only viable in rural environments
- ◉ D: mmWave is viable for both indoor and outdoor deployments

**Correct**
Congratulations! Choice (D) is the correct response. mmWave is viable for both indoor and outdoor deployments.

**5.** What is an advantage of mmWave compared to fiber backhaul? **2 / 2 points**

- ○ A: mmWave requires digging shallower trenches than fiber backhaul
- ◉ B: It can bring truly wireless broadband to rural areas at a lower cost
- ○ C: mmWave backhaul guarantees network slicing
- ○ D: Fiber does not last long and needs to be replaced frequently

**Correct**
Congratulations! Choice (B) is the correct response. One of mmWave's uses may be to bring wireless broadband to rural areas

**6.** Which of the following could replace cable modems for connectivity in the house? **2 / 2 points**

- ○ A: Last mile access modules
- ○ B: Small cells
- ◉ C: Fixed wireless access modules
- ○ D: Wireless gaming modules

**Correct**
Congratulations!Choice (C) is the correct response. Fixed wireless access could replace cable modems for connectivity in homes and businesses.

**7.** The lower end of mmWave spectrum is approximately _____. **1 / 1 point**

- ○ A: 6 GHz
- ○ B: 15 GHz
- ◉ C: 24 GHz
- ○ D: 50 GHz

**Correct**
Congratulations!Choice (C) is the correct response. mmWave spectrum is expected to be from 24 GHz to 100 GHz for 5G.