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Grade received 100% To pass 80% or higher

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## Quiz: Module 3

Latest Submission Grade 100%

1. Which of the following are control plane functions?

2 / 2 points

☐ A: BNF

☐ B: TNF

☒ C: AMF



Correct

Congratulations! Choices (C and E) are the correct responses. The AMF and the SMF are control plane functions.

☐ D: UPF

☒ E: SMF



Correct

Congratulations! Choices (C and E) are the correct responses. The AMF and the SMF are control plane functions.

2. In a standalone 5G network, \_\_\_\_ communicates with the UE as well as the core network.

1 / 1 point

☐ A: dNodeB

☐ B: eNodeB

☒ C: gNodeB

☐ D: hNodeB



Correct

Congratulations! Choice (C) is the correct response. gNodeB is the correct name for the base station which communicates with both the UE and the core network.

3. What are some benefits of deploying 5G as a non-standalone option? (select all that apply)

2 / 2 points

☐ A: 5G NSA is the deployment type that has the most strict security measures

☐ B: Will be the optimal deployment for URLLC applications

☒ C: Faster to launch compared to 5G Standalone deployments



Correct

Congratulations! Choices (C and D) are the correct responses. 5G NSA will be faster to launch than 5G SA deployments and it will offer higher bandwidth and improved UX compared to LTE deployments.

☒ D: Will have higher bandwidth and UX compared to using LTE only deployments



Correct

Congratulations! Choices (C and D) are the correct responses. 5G NSA will be faster to launch than 5G SA deployments and it will offer higher bandwidth and improved UX compared to LTE deployments.

4. What is true about a standalone 5G network

2 / 2 points

- ☐ A: Only data traffic goes over 5G
- ☐ B: Only control goes over 5G
- ☒ C: Both data and control go over 5G
- ☐ D: It will still use a 4G transport network



**Correct**

Feedback: Congratulations! Choice (C) is the correct response. Both data and control go over the 5G network in standalone.

5. Which is the first cellular technology to commercialize mmWave communication?

1 / 1 point

- ☐ A: 4G
- ☐ B: 2G
- ☐ C: 3G
- ☒ D: 5G



**Correct**

Feedback: Congratulations! Choice (D) is the correct response. 5G is the first generation that commercializes mmWave communication.

6. What are some benefits of using Massive MIMO? (select all that apply)

2 / 2 points

- ☐ A: M-MIMO provides more bandwidth
- ☐ B: M-MIMO reduces thermal noise
- ☒ C: M-MIMO helps increase coverage



**Correct**

Feedback: Congratulations! Choices (C and D) are the correct responses. Some of the main benefits of M-MIMO include increasing capacity and coverage.

- ☒ D: M-MIMO helps increase capacity



**Correct**

Feedback: Congratulations! Choices (C and D) are the correct responses. Some of the main benefits of M-MIMO include increasing capacity and coverage.

7. Select all the networking features that can be used by 5G networks: (select all that apply)

4 / 4 points

- ☒ A: Network slicing



**Correct**

Feedback: Congratulations! Choices (A, B, C, E) are the correct responses. Network slicing, SDN, NFV, and edge computing are all networking features that are used by 5G networks.

- ☒ B: Software-Defined Networking



**Correct**

Feedback: Congratulations! Choices (A, B, C, E) are the correct responses. Network slicing, SDN, NFV, and edge computing are all networking features that are used by 5G networks.

- ☒ C: Network Function Virtualization



**Correct**

Feedback: Congratulations! Choices (A, B, C, E) are the correct responses. Network slicing, SDN, NFV, and edge computing are all networking features that are used by 5G networks.

- ☐ D: 802.11 Wi-Fi
- ☒ E: Edge Computing



**Correct**

Congratulations! Choices (A, B, C, E) are the correct responses. Network slicing, SDN, NFV, and edge computing are all networking features that are used by 5G networks.

8. Network slices can ...(select all that apply)

2 / 2 points

- ☒ A: offer resource isolation among services



**Correct**

Congratulations! Choices (A and C) are the correct responses. Network slices offer resource isolation among services and flexible subscription models.

- ☐ B: improve SNR
- ☒ C: offer flexible subscription models



**Correct**

Congratulations! Choices (A and C) are the correct responses. Network slices offer resource isolation among services and flexible subscription models.

- ☐ D: increase cell size

9. Which of the following are hallmarks of Network Functions Virtualization (NFV)?

2 / 2 points

- ☒ A: Deployment of network functions in a cloud



**Correct**

Feedback: Congratulations! Choice (A and D) are the correct responses. Network Function Virtualization allows deployment of network functions in a cloud and it allows flexible and dynamic network deployments

- ☐ B: Shift of resources from centralized data centers to the network edge – nearer to the users
- ☐ C: Flexible subscription models
- ☒ D: Flexible,scalable and dynamic network deployments



**Correct**

Feedback: Congratulations! Choice (A and D) are the correct responses. Network Function Virtualization allows deployment of network functions in a cloud and it allows flexible and dynamic network deployments

10. Which of the following are important features of edge computing?

2 / 2 points

- ☐ A: Requires network slicing to work efficiently
- ☒ B: Brings compute, storage, and networking resources closer to applications, devices and users.



**Correct**

Feedback: Congratulations! Choices (B and D) are the correct responses. Edge computing involves bringing compute, storage, and networking resources closer to users and it can facilitate services that require strict latency, security, and high bandwidth.

- ☐ C: Can only be used in 5G Standalone deployments
- ☒ D: Can facilitate services with strict latency, security, and bandwidth requirements



**Correct**

Feedback: Congratulations! Choices (B and D) are the correct responses. Edge computing involves bringing compute, storage, and networking resources closer to users and it can facilitate services that require strict latency, security, and high bandwidth.

