

Page 1:

- 1 ✓
- 2 ✓
- 3 ✓
- 4 ✓
- 5 ✓
- 6 ✓
- 7 ✓
- 8 ✓
- 9 ✓
- 10 ✓
- 11 ✓
- 12 ✓
- 13 ✓
- 14 ✓
- 15 ✓
- 16 ✓
- 17 ✓
- 18 ✓
- 19 ✓
- 20 ✓
- 21 ✓
- 22 ✓
- 23 ✓
- 24 ✓
- 25 ✓
- 26 ✓
- 27 ✓
- 28 ✓
- 29 ✓
- 30 ✓
- 31 ✓

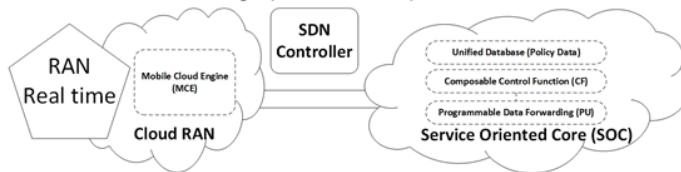
Question 1 (3 points) ✓ Saved

Which of the following options is/are required for system-wide security (horizontal security) in 5G?

- ☒ Application level
- ☒ Confidentiality and integrity protection for devices & gateways
- ☐ Distributed clouds
- ☒ Network level

Question 2 (3 points) ✓ Saved

Which of the following options is/are parts of the CloudRAN?



- ☒ mobile cloud engines
- ☒ sites
- ☐ SDN controller
- ☐ service oriented core

Question 3 (10 points) ✓ Saved

Match the following parameters with their respective technology?

- 1

10 msec, Latency

1

1 Gbps, Maximum data rate

1

LTE
- 2

20 Gbps, Maximum data rate

2

1 msec, Latency

2

5G
- 2

10 bps/cell/Hz, Spectral efficiency

1

3 bps/cell/Hz, Spectral efficiency

Question 4 (2 points) ✓ Saved

Which one of the following functional blocks in 5G network architecture is responsible for dynamic policies and/or charging control?



Est. Length: 2:00:00

Time Taken:0:17:53

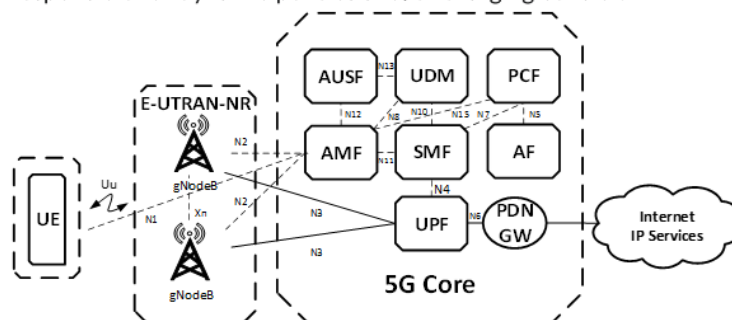
KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 3

Page 1:

- | | | |
|----|----|----|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
| 10 | 11 | 12 |
| 13 | 14 | 15 |
| 16 | 17 | 18 |
| 19 | 20 | 21 |
| 22 | 23 | 24 |
| 25 | 26 | 27 |
| 28 | 29 | 30 |
| 31 | | |

Question 4 (2 points) ✓ Saved

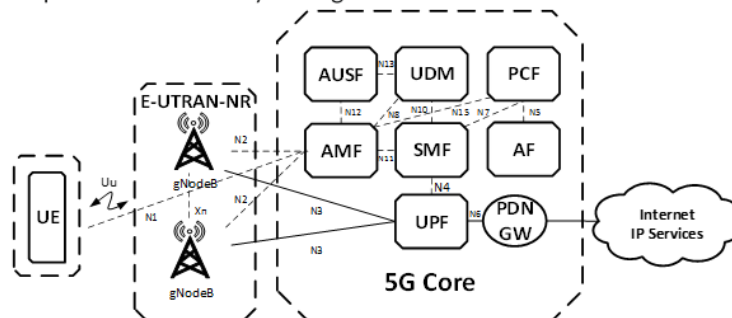
Which one of the following functional blocks in 5G network architecture is responsible for dynamic policies and/or charging control?



- ☒ Application Function, AF
- ☐ Access and Mobility Function, AMF
- ☐ Policy Control Function, PCF
- ☐ Authentication Server Function, AUSF

Question 5 (2 points) ✓ Saved

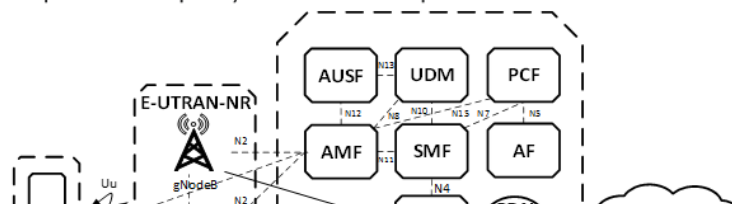
Which one of the following functional blocks in 5G network architecture is responsible for mobility management?



- ☐ Unified Data Management, UDM
- ☒ Access and Mobility Function, AMF
- ☐ User Plane Function, UPF
- ☐ Session Management Function, SMF

Question 6 (2 points) ✓ Saved

Which one of the following functional blocks in 5G network architecture is responsible for policy rules to control plane functions?

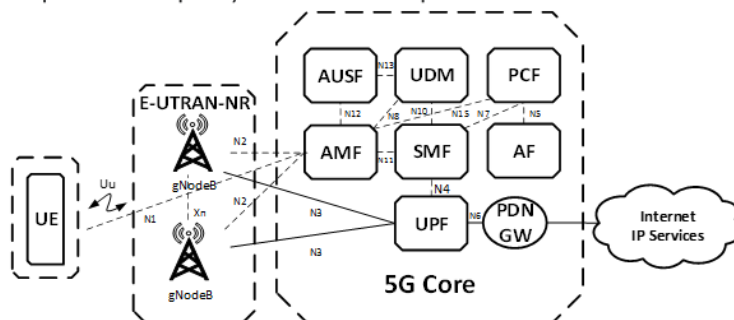


Page 1:

- | | | |
|----|----|----|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
| 10 | 11 | 12 |
| 13 | 14 | 15 |
| 16 | 17 | 18 |
| 19 | 20 | 21 |
| 22 | 23 | 24 |
| 25 | 26 | 27 |
| 28 | 29 | 30 |
| 31 | | |

Question 6 (2 points) ✓ Saved

Which one of the following functional blocks in 5G network architecture is responsible for policy rules to control plane functions?



- ☐ Authentication Server Function, AUSF
- ☐ Session Management Function, SMF
- ☒ Policy Control Function, PCF
- ☐ Access and Mobility Function, AMF

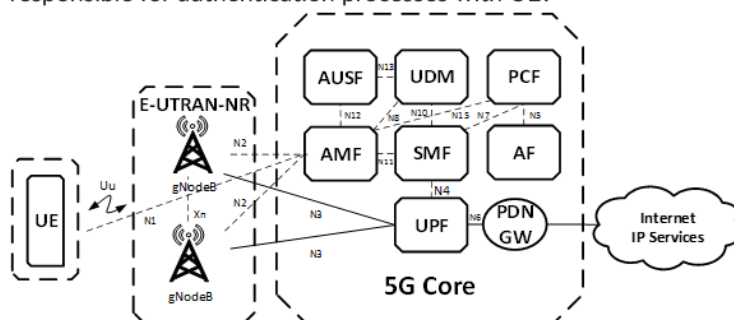
Question 7 (3 points) ✓ Saved

Which of the following options is/are the benefits of end to end, E2E network slicing in 5G usage?

- ☒ cost
- ☒ flexibility
- ☐ high latency
- ☒ efficiency

Question 8 (2 points) ✓ Saved

Which one of the following functional blocks in 5G network architecture is responsible for authentication processes with UE?



- ☒ Authentication Server Function, AUSF
- ☐ Session Management Function, SMF
- ☐ Unified Data Management, UDM
- ☐ Access and Mobility Function, AMF

Page 1:

1 ✓	2 ✓	3 ✓
4 ✓	5 ✓	6 ✓
7 ✓	8 ✓	9 ✓
10 ✓	11 ✓	12 ✓
13 ✓	14 ✓	15 ✓
16 ✓	17 ✓	18 ✓
19 ✓	20 ✓	21 ✓
22 ✓	23 ✓	24 ✓
25 ✓	26 ✓	27 ✓
28 ✓	29 ✓	30 ✓
31 ✓		

Question 9 (10 points) ✓ Saved

Match the following options with their respective deployment options for 5G?

- | | | |
|---|---|-------------------------|
| 2 | Requires tight interworking with LTE | |
| 1 | NR radio cells directly used by 5G device for control and user planes | |
| 2 | Peak bitrate is sum of LTE and NR | 1. Standalone (SA) |
| 1 | Independent RAN products by vendors | 2. Non-standalone (NSA) |
| 2 | Leverages existing 4G deployments for operators | |
| 1 | Dedicated low latency transport and peak bitrate set by NR | |

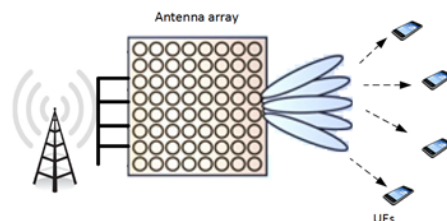
Question 10 (2 points) ✓ Saved

Which one of the following physical layer features in 5G new radio (NR) is flexibility to operate in many different frequency bands with varying channel requirements around the world?

- ☐ low order modulation scheme
- ☐ TDD/FDD
- ☐ massive MIMO
- ☒ flexible channel widths

Question 11 (3 points) ✓ Saved

Which of the following options is/are the benefits of massive beamforming in 5G?



- ☒ maximizing the received signal energy at the mobile in a certain direction to improve coverage
- ☐ minimizing the received signal energy at the mobile in a certain direction to improve coverage
- ☒ concentrating the transmission power in a certain direction to improve the coverage
- ☒ steering the transmission power towards the intended receiver

Page 1:

1 ✓	2 ✓	3 ✓
4 ✓	5 ✓	6 ✓
7 ✓	8 ✓	9 ✓
10 ✓	11 ✓	12 ✓
13 ✓	14 ✓	15 ✓
16 ✓	17 ✓	18 ✓
19 ✓	20 ✓	21 ✓
22 ✓	23 ✓	24 ✓
25 ✓	26 ✓	27 ✓
28 ✓	29 ✓	30 ✓
31 ✓		

Question 12 (10 points) ✓ Saved

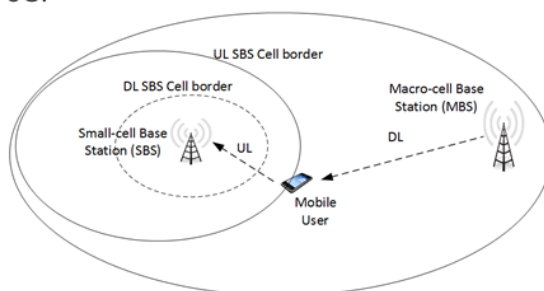
Match the following options with respect to their impact on data rate & cell size in launching of 5G frequency spectrums.

- 3 ✓ Able to support very high data rates and short-range connectivity
- 2 ✓ Unable to support the higher data rate of 5G without carrier aggregation
- 2 ✓ Able to offer a mixture of coverage and capacity
- 2 ✓ Major commercial 5G launches are expected in this spectrum in near future
- 1 ✓ Useful for coverage especially indoor and in rural areas

- 1. Spectrum below 3 GHz
- 2. Spectrum between 3 to 6 GHz
- 3. Spectrum above 24 GHz

Question 13 (3 points) ✓ Saved

Which of the following options is/are TRUE for uplink and downlink decoupling in 5G?



- ☐ to configure a high frequency band for uplink to resolved the issue of limited uplink coverage
- ☒ to reduce their transmission power and the interference on the base stations
- ☒ to separate uplink and downlink of 5G networks onto different frequency bands
- ☒ to configure a low frequency band for uplink to resolved the issue of limited uplink coverage

Question 14 (2 points) ✓ Saved

Cloud adoption in 5G technology allows for better support for diversified mobile service requirement.

Est. Length: 2:00:00

Time Taken:0:18:19

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 3

Page 1:

1 ✓	2 ✓	3 ✓
4 ✓	5 ✓	6 ✓
7 ✓	8 ✓	9 ✓
10 ✓	11 ✓	12 ✓
13 ✓	14 ✓	15 ✓
16 ✓	17 ✓	18 ✓
19 ✓	20 ✓	21 ✓
22 ✓	23 ✓	24 ✓
25 ✓	26 ✓	27 ✓
28 ✓	29 ✓	30 ✓
31 ✓		

Question 14 (2 points) ✓ Saved

Cloud adoption in 5G technology allows for better support for diversified mobile service requirement.

- ☒ True
- ☐ False

Question 15 (3 points) ✓ Saved

Which of the following options is/are very important for IoT sensor networks in 5G?

- ☒ low power usages
- ☐ Mobility
- ☒ support massive number of devices
- ☐ Very high data rate

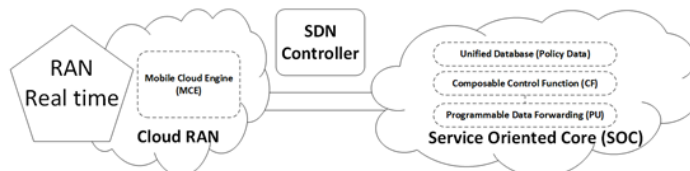
Question 16 (3 points) ✓ Saved

Which of the following options is/are the features of massive MIMO in 5G?

- ☒ providing a user-centric dynamic narrow beam to improve spectral efficiency
- ☐ providing a sector-level fixed wide beam to improve spectral efficiency
- ☒ improving coverage and reducing inter-cell interference
- ☒ exploiting large antenna arrays to spatially multiplex many terminals

Question 17 (3 points) ✓ Saved

Which of the following options is/are parts of the transport network in 5G service network architecture?



- ☒ forwarding nodes
- ☐ mobile cloud engines
- ☒ SDN controllers
- ☐ sites

Question 18 (2 points) ✓ Saved

Which one of the following physical layer features in 5G new radio (NR) ensures a robust RF link while maximizing the number of bits/symbol for each user?

- ☐ TDD/FDD
- ☒ error correction and coding adaptive modulation and variable error correction encoding

Est. Length: 2:00:00

Time Taken:0:18:25

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 3

Page 1:

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31		

Question 18 (2 points) ✓ Saved

Which one of the following physical layer features in 5G new radio (NR) ensures a robust RF link while maximizing the number of bits/symbol for each user?

- ☐ TDD/FDD
- ☒ error correction and coding adaptive modulation and variable error correction encoding
- ☐ massive MIMO
- ☐ low order modulation scheme

Question 19 (3 points) ✓ Saved

Which of the follow important key areas is/are addressed in 5th generation (5G) wireless access technology?

- ☒ ultra-reliable and low latency communication (URLLC)
- ☐ enhanced machine broadband (eMBB)
- ☒ enhanced mobile broadband (eMBB)
- ☒ massive machine type communication (mMTC)

Question 20 (3 points) ✓ Saved

Which of the following options is/are TRUE for network slicing in 5G?

- ☐ network slicing allows customers to bulit virtual end-to-end, E2E, networks tailer to application requirements
- ☒ network slicing allows the creations of multiple virtual networks atop a shared physical infrastructure
- ☒ network slicing allows service providers to bulit virtual end-to-end, E2E, networks tailer to application requirements
- ☐ network slicing allows the creations of multiple physical networks atop a shared physical infrastructure

Question 21 (2 points) ✓ Saved

Which one of the following features is the important of 5G end to end, E2E network slicing?

- ☐ a multiple radio networks are sliced into vitrual multiple virtual networks that can support other radio access networks
- ☐ a single physical network is sliced into multiple physical networks that can support different radio access networks

Est. Length: 2:00:00

Time Taken:0:18:34

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 3

Page 1:

1 ✓	2 ✓	3 ✓
4 ✓	5 ✓	6 ✓
7 ✓	8 ✓	9 ✓
10 ✓	11 ✓	12 ✓
13 ✓	14 ✓	15 ✓
16 ✓	17 ✓	18 ✓
19 ✓	20 ✓	21 ✓
22 ✓	23 ✓	24 ✓
25 ✓	26 ✓	27 ✓
28 ✓	29 ✓	30 ✓
31 ✓		

Question 21 (2 points) ✓ Saved

Which one of the following features is the important of 5G end to end, E2E network slicing?

- ☐ a multiple radio networks are sliced into vitrual multiple virtual networks that can support other radio access networks
- ☐ a single physical network is sliced into multiple physical networks that can support different radio access networks
- ☐ a single physical network is sliced into multiple virtual networks that can support the same radio access network
- ☒ a single physical network is sliced into multiple virtual networks that can support different radio access networks

Question 22 (2 points) ✓ Saved

Which one of the following physical layer features in 5G new radio (NR) offers higher transmission ranges for high frequency bands?

- ☒ massive MIMO
- ☐ error correction and coding
- ☐ TDD/FDD
- ☐ low order modulation scheme

Question 23 (3 points) ✓ Saved

Which of the following options is/are very important for **dense** crowd of users networks in 5G?

- ☐ Mobility
- ☐ Very low latency
- ☒ Very high capacity
- ☒ Very high data rate

Question 24 (2 points) ✓ Saved

Which one of the following physical layer features in 5G new radio (NR) offers higher data rate for low frequency bands?

- ☐ TDD/FDD
- ☒ massive MIMO
- ☐ low order modulation scheme
- ☐ error correction and coding

Question 25 (2 points) ✓ Saved

Which one of the following functional blocks in 5G network architecture is responsible for storing of subscription information?

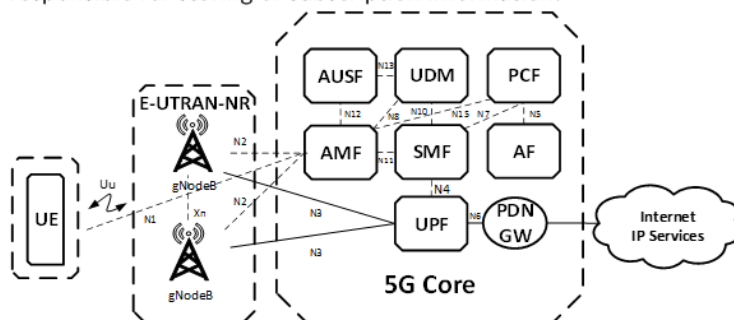


Page 1:

- | | | |
|----|----|----|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
| 10 | 11 | 12 |
| 13 | 14 | 15 |
| 16 | 17 | 18 |
| 19 | 20 | 21 |
| 22 | 23 | 24 |
| 25 | 26 | 27 |
| 28 | 29 | 30 |
| 31 | | |

Question 25 (2 points) ✓ Saved

Which one of the following functional blocks in 5G network architecture is responsible for storing of subscription information?



- ☒ Unified Data Management, UDM
- ☐ Access and Mobility Function, AMF
- ☐ User Plane Function, UPF
- ☐ Session Management Function, SMF

Question 26 (3 points) ✓ Saved

Which of the following options is/are enabled/allowed by cloud adoption in 5G system?

- ☒ component-based network functions
- ☒ end to end network slicing
- ☒ on-demand deployment of service anchor
- ☒ diversified 5G services

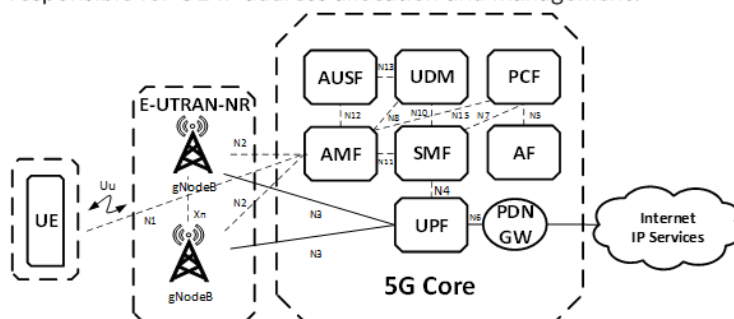
Question 27 (3 points) ✓ Saved

Which of the following options is/are very important for IoT control networks in 5G?

- ☐ Very high capacity
- ☒ Security
- ☒ Very low latency
- ☒ Reliability

Question 28 (2 points) ✓ Saved

Which one of the following functional blocks in 5G network architecture is responsible for UE IP address allocation and management?



Est. Length: 2:00:00

Time Taken:0:18:47

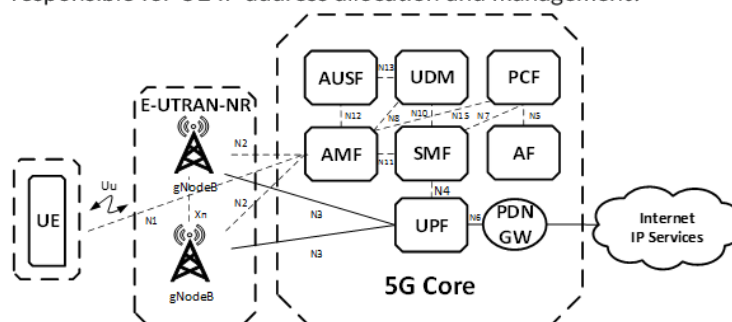
KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 3

Page 1:

- | | | |
|----|----|----|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
| 10 | 11 | 12 |
| 13 | 14 | 15 |
| 16 | 17 | 18 |
| 19 | 20 | 21 |
| 22 | 23 | 24 |
| 25 | 26 | 27 |
| 28 | 29 | 30 |
| 31 | | |

Question 28 (2 points) ✓ Saved

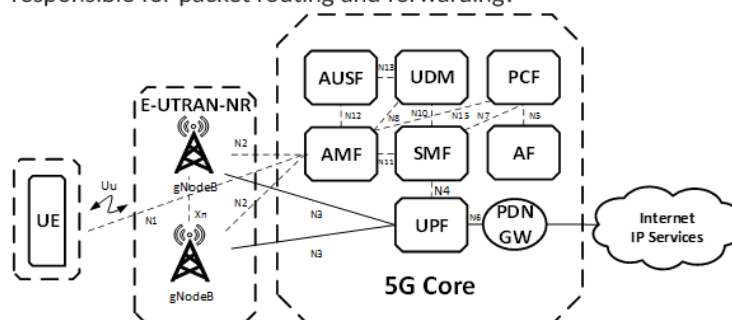
Which one of the following functional blocks in 5G network architecture is responsible for UE IP address allocation and management?



- ☐ Access and Mobility Function, AMF
- ☐ Unified Data Management, UDM
- ☐ User Plane Function, UPF
- ☒ Session Management Function, SMF

Question 29 (2 points) ✓ Saved

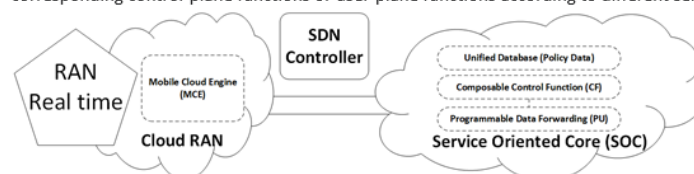
Which one of the following functional blocks in 5G network architecture is responsible for packet routing and forwarding?



- ☐ Unified Data Management, UDM
- ☒ User Plane Function, UPF
- ☐ Access and Mobility Function, AMF
- ☐ Session Management Function, SMF

Question 30 (2 points) ✓ Saved

Which one of the following features allows for network function orchestration to ensure that networks can select corresponding control-plane functions or user-plane functions according to different service requirements?



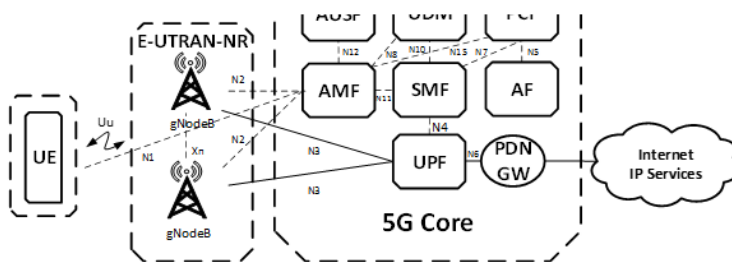
Est. Length: 2:00:00

Time Taken:0:18:53

KHIU KIM HONG EEE-DEEE-FT-3A-06: Attempt 3

Page 1:

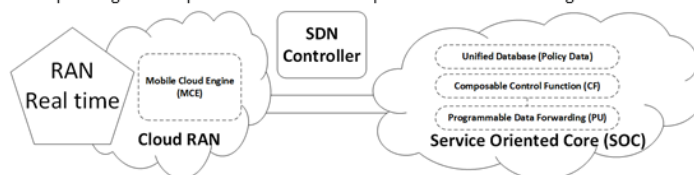
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31		



- ☐ Unified Data Management, UDM
- ☒ User Plane Function, UPF
- ☐ Access and Mobility Function, AMF
- ☐ Session Management Function, SMF

Question 30 (2 points) ✓ Saved

Which one of the following features allows for network function orchestration to ensure that networks can select corresponding control-plane functions or user-plane functions according to different service requirements?



- ☐ programmable control planes and component-based user planes
- ☐ component-based control planes and component-based user planes
- ☐ programmable control planes and programmable user planes
- ☒ component-based control planes and programmable user planes

Question 31 (3 points) ✓ Saved

Which of the following options is/are very important for mobile broadband users in 5G?

- ☒ high data rates
- ☐ very high reliability
- ☒ mobility
- ☐ very low latency

Submit Quiz

31 of 31 questions saved