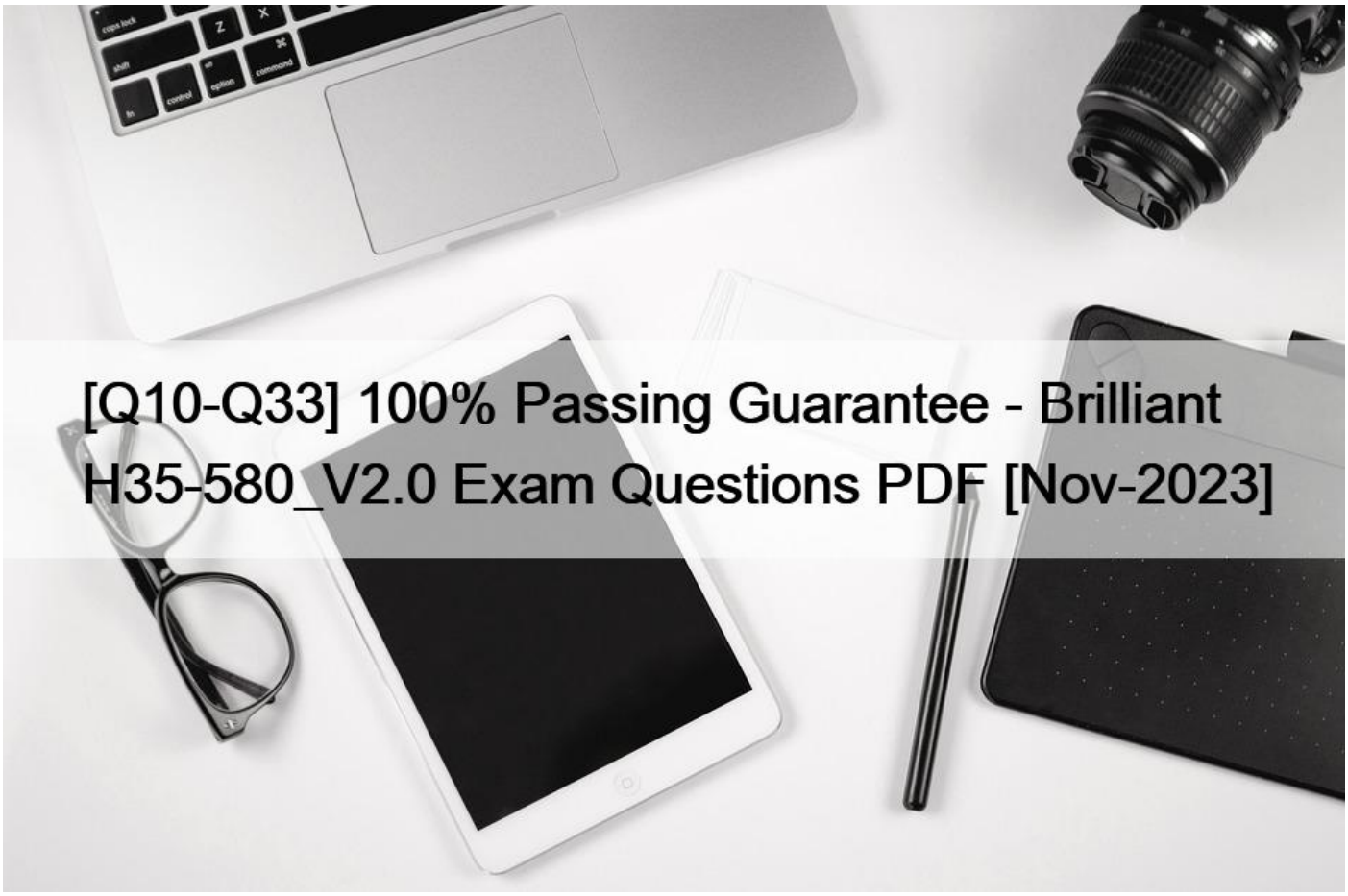
[Q10-Q33 100% Passing Guarantee - Brilliant H35-580_V2.0 Exam Questions PDF [Nov-2023



100% Passing Guarantee - Brilliant H35-580_V2.0 Exam Questions PDF [Nov-2023]
H35-580_V2.0 Dumps 2023 - NewHuawei H35-580_V2.0 Exam Questions

Huawei H35-580_V2.0 is a certification exam provided by Huawei Technologies Co. Ltd. It is designed for individuals who want to validate their knowledge and skills in 5G radio network planning. HCIA-5G-RNP&RNO V2.0 certification is appropriate for network planning engineers, network architects, and network administrators who are interested in working with 5G networks.

NO.10 If AFGIobal is 15 kHz, FREF-Offs is 3000 MHz, and NREF-Offs is 600000, which of the following is the NR Absolute Radio Frequency Channel Number (NR-ARFCN) corresponding to 3300 MHz?
* 633000
* 600000
* 3300000
* 620000
Explanation

According to the NR-ARFCN (NR absolute radio frequency channel number), the NR-ARFCN value consists of two components: the band indicator and the channel number. The band indicator represents the frequency band on which the carrier frequency lies, while the channel number represents the specific carrier frequency within that band. The NR-ARFCN value is calculated by the following formula:

NR-ARFCN = FREF-Offs + NREF-Offs + FGlobal * (Fcarrier – FREF-Offs) / AFGIobal where FREF-Offs is the reference frequency offset, NREF-Offs is the reference NR-ARFCN offset, FGlobal is the global frequency raster, Fcarrier is the carrier frequency, and AFGIobal is the absolute frequency granularity.

Given that AFGIobal is 15 kHz, FREF-Offs is 3000 MHz, and NREF-Offs is 600000, we can plug in these values and Fcarrier = 3300 MHz into the formula and get:

NR-ARFCN = 3000 + 600000 + 5 * (3300 – 3000) / 0.015 NR-ARFCN = 633000

Therefore, the correct answer is A.

NO.11 Which of the following NR system indicators is at the base station level?
* PRB usage
* PDCCH resource usage
* User capacity usage
* Paging resource usage

Explanation

According to the HCIA-5G V2.0 Exam Outline, user capacity usage is an NR system indicator that is at the base station level, which corresponds to option C. It reflects the number of users that can be served by a base station. PRB usage, PDCCH resource usage, and paging resource usage are NR system indicators that are at the cell level, which correspond to options A, B, and D. They reflect the utilization of physical resources in a cell.

NO.12 In SA networking, which of the following is the first step for a UE to perform a cell search?
* Obtain the cell signal quality.
* Obtain other cell information.
* Synchronize frames and obtain PCI group number.
* Synchronize half-frames and obtain the ID within a PCI group.

Explanation

According to the 5G SA Cell Search & Network Entry Matrix, the first step for a UE to perform a cell search in SA networking is to synchronize frames and obtain PCI group number. This step involves the following sub-steps:

The UE scans the available frequency range to detect the presence of Synchronization Signal Blocks (SSBs) from different base stations. SSBs are periodic signals that contain essential synchronization and system information for cell search and initial access.

The UE selects an SSB with the strongest signal strength and decodes its Primary Synchronization Signal (PSS) and Secondary Synchronization Signal (SSS). The PSS and SSS are part of the SSB and provide coarse timing synchronization and cell identity information.

The UE uses the PSS and SSS information to synchronize its internal clock with that of the base station and obtain the Physical Cell Identity (PCI) group number. The PCI group number is a 9-bit value that identifies a group of 8 cells that share the same PSS and SSS sequences. The PCI group number ranges from 0 to 1007.

The other steps for a UE to perform a cell search in SA networking are:

Synchronize half-frames and obtain the ID within a PCI group: The UE further synchronizes its timing with the base station by decoding its Narrowband Synchronization Signal (NSSS), which is also part of the SSB. The NSSS provides more precise timing information and the ID within a PCI group, which is a

3-bit value that identifies a specific cell within a PCI group. The ID within a PCI group ranges from 0 to

7. By combining the PCI group number and the ID within a PCI group, the UE can obtain the full PCI, which is a 10-bit value that uniquely identifies a cell.

Obtain other cell information: The UE decodes other signals and channels in the SSB to acquire other cell information, such as system bandwidth, subcarrier spacing, frame structure, etc. These signals and channels include Demodulation Reference Signals (DMRS), Master Information Block (MIB), System Information Block (SIB), etc.

Obtain the cell signal quality: The UE measures the cell signal quality based on various indicators, such as Reference Signal Received Power (RSRP), Reference Signal Received Quality (RSRQ), Signal-to-Interference-plus-Noise Ratio (SINR), etc. These indicators reflect the strength, quality, and interference level of the received signal.

NO.13 What are characteristics of eCPRI links?(Select All that Apply)
* They are based on the TDM mechanism.
* They require dock synchronization.
* They are based on the IP mechanism.
* They require AAU support.

Explanation

According to the eCPRI Specification V2, eCPRI links have the following characteristics:

They require clock synchronization: eCPRI links use Ethernet as the transport layer, which does not provide inherent synchronization. Therefore, eCPRI links require external clock synchronization methods, such as IEEE 1588v2 Precision Time Protocol (PTP) or Synchronous Ethernet (SyncE).

They are based on the IP mechanism: eCPRI links use IP as the network layer, which provides routing and addressing functions for eCPRI messages. eCPRI links can use either IPv4 or IPv6 protocols.

They require AAU support: eCPRI links connect between Radio Equipment Control (REC) and Radio Equipment (RE) in a base station. AAU (Active Antenna Unit) is a type of RE that integrates RF and antenna functions in one unit. Therefore, eCPRI links require AAU support to enable flexible functional split options and reduce fronthaul bandwidth requirements.

eCPRI links are not based on the TDM mechanism because they do not use fixed time slots to transmit data.

Instead, they use variable-length packets to transmit data according to different service requirements.

NO.14 Which of the following SI messages must be read on a 5G network?
* SIB2
* SIB1
* SIB4
* SIB3

Explanation

According to the 5G SIB Messages, SIB1 is the only mandatory SI message that must be read on a 5G network. SIB1 contains

essential information for accessing the network, such as cell identity, cell barring, and scheduling information for other SI messages. SIB2, SIB3, and SIB4 are optional SI messages that provide additional information such as radio resource configuration, intra-frequency cell reselection, and neighboring cell information.

NO.15 Which of the following factors does not need to be considered during PUSCH power calculation?
* Number of PUSCH RBs
* SCS configuration for the PUSCH
* MCS index of the PUSCH
* Number of PUSCH symbols in the time domain

Explanation

According to the 5G NR Uplink Power Control Procedure, MCS index of the PUSCH is not a factor that needs to be considered during PUSCH power calculation. The MCS index determines the modulation and coding scheme of the PUSCH, but it does not affect the transmit power. The other factors, such as number of PUSCH RBs, SCS configuration for the PUSCH, and number of PUSCH symbols in the time domain, are all involved in the PUSCH power calculation formula.

NO.16 Which of the following channels/signals require demodulation reference signals (DMRSs)?(Select All that Apply)
* DPBCH
* DPDCCH
* DPOSCH
* DCSI-RS

Explanation

According to the 5G NR Physical Layer Specifications, demodulation reference signals (DMRSs) are required for the following channels/signals in the downlink and uplink:

Downlink Physical Broadcast Channel (DPBCH)

Downlink Physical Downlink Control Channel (DPDCCH)

Downlink Physical Shared Channel (DPOSCH)

Uplink Physical Random Access Channel (PRACH)

Uplink Physical Uplink Control Channel (PUCCH)

Uplink Physical Uplink Shared Channel (PUSCH)

NO.17 In order to achieve ideal coverage, what is the clearance requirement around an antenna?
* 1-5m
* 50-100m
* 5-10m
* 5000-10000m

Explanation

In order to achieve ideal coverage, there should be a clearance zone around an antenna of at least d, where d is the Fraunhofer or Rayleigh distance at which the near/far-field transition zone exists 17. This distance depends on the largest dimension of the antenna, D, and the operating wavelength, uF06C. Ideally, D should be at least a half of a wavelength, which gives a minimum clearance zone of a half-wavelength. For example, at 2.4 GHz, the wavelength is about 0.125 m, so the minimum clearance zone is about 0.0625 m. However, in practical situations, this clearance zone is often compromised and the effects must be determined

through simulation or empirical measurement 18. A general guideline is to have a clearance zone of 5-10 m around an antenna to avoid significant degradation of performance 19. Therefore, the best answer is C.

NO.18 Which of the following statements about the space principles for 5G BBU installation are correct?(Select All that Apply)
* If the installation space is insufficient, the BBU can be installed on a wall. Ensure that the wall meets the load bearing requirements.
* If the space is greater than 600 mm, a cabinet can be added to install the BBU.
* If the installation space is insufficient, install 5G boards directly into the existing 4G B8U.
* If the remaining space of an existing cabinet is greater than 4 U, the BBU can be installed directly.

Explanation

According to the Hardware Description: Bbu5900 V100r013c10, these statements are correct about the space principles for 5G BBU installation:

If the installation space is insufficient, the BBU can be installed on a wall. Ensure that the wall meets the load bearing requirements: The BBU can be installed on a wall using wall-mounted brackets. The wall must be able to bear at least four times the weight of the BBU and must be flat and vertical. The installation height of the BBU must not exceed 2 m.

If the space is greater than 600 mm, a cabinet can be added to install the BBU: The BBU can be installed in a cabinet that meets the requirements of Huawei base stations. The cabinet must have a width of 19 inches and a depth of at least 600 mm. The cabinet must also provide sufficient ventilation, grounding, and lightning protection for the BBU.

If the remaining space of an existing cabinet is greater than 4 U, the BBU can be installed directly: The BBU can be installed in an existing cabinet that has enough space for it. The BBU has a height of 2 U, so it requires at least 4 U of space in a cabinet. The existing cabinet must also meet the requirements of Huawei base stations.

The other statement is incorrect about the space principles for 5G BBU installation:

If the installation space is insufficient, install 5G boards directly into the existing 4G B8U: This statement is not supported by Huawei base stations. The 5G boards cannot be installed directly into the existing 4G B8U because they have different slot distributions and board types. The 5G boards can only be installed in a BBU5900 subrack that supports both LTE and NR modes.

NO.19 Which of the following common messages need to be scheduled?(Select All that Apply)
* Paging
* RA Response
* SIB
* MIB

Explanation

According to the 5G NR Physical Layer Specifications, Paging, SIB, and MIB are common messages that need to be scheduled. Paging is a message that is used to notify a UE of incoming data or system information when it is in idle mode or connected mode inactive state. SIB stands for System Information Block, which is a message that contains various system parameters and configuration information for UEs. MIB stands for Master Information Block, which is a message that contains essential system information such as system frame number and subcarrier spacing. These common messages need to be scheduled because they are transmitted periodically and have fixed time-frequency resources.

NO.20 Which of the following materials does not need to be prepared before site survey?
* Local map
* Site survey table
* 5G antenna height table

* Engineering file

Explanation

According to the 5G Site Survey Guide (V1.0) (PDF)-EN, the engineering file is not a material that needs to be prepared before site survey. The engineering file is a document that records the site survey results and the design plan for the site. The engineering file is generated after the site survey is completed and approved by the customer. The materials that need to be prepared before site survey are:

Local map: A map of the area where the site is located, showing the roads, buildings, landmarks, and other features. The local map helps the site survey team to plan the route, identify the site location, and evaluate the surrounding environment.

Site survey table: A table that lists the items and parameters that need to be checked and measured during the site survey, such as antenna installation space, equipment room space and load bearing capacity, power supply, grounding, lightning protection, cable routing, etc. The site survey table helps the site survey team to conduct a comprehensive and systematic inspection of the site conditions and record the data.

5G antenna height table: A table that shows the recommended antenna height for different scenarios and frequency bands based on empirical data and theoretical calculations. The 5G antenna height table helps the site survey team to determine the optimal antenna installation height for achieving the best coverage and performance.

Therefore, the correct answer is D.

NO.21 In the uplink rate test for NR users, which of the following values is the recommended uplink maximum MIMO layers for 2T4R UEs?

* Layer3
* Layer2
* Layer4
* Layer1

Explanation

According to the HCIA-5G V2.0 Exam Outline, the uplink maximum MIMO layers for 2T4R UEs is 2, which corresponds to option B.

NO.22 In SA networking, which of the following messages is used to deliver PRACH power control parameters to UEs?

* SIB2
* RRC reconfiguration
* MIB
* SIB1

Explanation

According to the 5G NR Uplink Power Control Procedure, SIB2 is the message that contains the PRACH power control parameters, such as msg3-Alpha, p0-NominalWithoutGrant, and p0-AlphaSets. These parameters are used by the UE to determine the transmit power of the PRACH preamble.

NO.23 CU-DU Split of a base station means that the base station’s control plane functions and user plane functions are separated.

* True
* False

Explanation

According to the China’s Approach to Military 5G Networks and Related Military Applications, CU-DU Split of a base station means that the base station’s control plane functions (CU) and user plane functions (DU) are separated, which can improve network flexibility and scalability.

NO.24 Which of the following is not a typical application scenario of massive MIMO?
* Suburban areas with light traffic
* Large venues
* High-rise buildings
* Densely populated urban areas

Explanation

Massive MIMO is a technology that uses a large number of antennas at the base station to serve multiple users simultaneously, thereby increasing the spectral efficiency and capacity of the wireless system 1. Massive MIMO is especially suitable for application scenarios where there is high user density and high traffic demand, such as large venues, high-rise buildings, and densely populated urban areas 2. Suburban areas with light traffic do not have such high requirements for spectral efficiency and capacity, and therefore are not a typical application scenario of massive MIMO.

NO.25 Which of the following protocol layers has been added to the 5G air interface protocol stack compared with

4G?
* POCP
* RRC
* SDAP
* MAC

Explanation

According to the HCIA-5G V2.0 Exam Outline, SDAP is a new protocol layer added to the 5G air interface protocol stack compared with 4G. SDAP stands for Service Data Adaptation Protocol, and it is used to map QoS flows to data radio bearers and perform header compression and decompression.

NO.26 Which of the following counters can be measured at the board level?
* CPU usage
* Transmission interface measurement
* Number of paging messages
* CCE usage

Explanation

According to the Career Certification – Huawei Enterprise, CPU usage and transmission interface measurement are counters that can be measured at the board level, which correspond to options A and B. They reflect the performance and status of the boards in a base station. Number of paging messages and CCE usage are counters that can be measured at the cell level, which correspond to options C and D. They reflect the utilization of radio resources in a cell.

NO.27 Slot distribution in BBU5900 is the same as that in BBU3910.
* True
* False

Explanation

According to the Hardware Description: Bbu5900 V100r013c10, the slot distribution in BBU5900 is not the same as that in BBU3910. The BBU5900 has 11 slots, while the BBU3910 has 12 slots. The slot distribution in BBU5900 is as follows:

A screenshot of a computer Description automatically generated

Slot	Board Type
0	UPEU
1	UMPT
2	USCUb22/UEIU/UFLP
3	USCUb22/UEIU/UFLP
4	UBBP
5	UBBP
6	UBBP
7	UBBP
8	Reserved
9	Reserved
10	UPEU

The slot distribution in BBU3900 is as follows:

Slot	Board Type
0	UPEU/UPEUB
1	UMPT/LMPT/USCUb22/UEIU/UFLP
2	UMPT/LMPT/USCUb22/UEIU/UFLP
3	UMPT/LMPT/USCUb22/UEIU/UFLP
4	UMPT/LMPT/USCUb22/UEIU/UFLP
5	UBBP
6	UBBP
7	UBBP
8	UBBP
9	UBBP
10	UBBP
11	UPEU/UPEUB

NO.28 5G can meet service requirements in scenarios with a mobility speed of up to 500 km/h.
* True
* False
Explanation

According to the Huawei Career Certification Learning, 5G can meet service requirements in scenarios with a mobility speed of up to 500 km/h, which is much higher than the 4G limit of 350 km/h.

NO.29 Which of the following protocols/data belong to Layer 3 of the Uu interface?(Select All that Apply)
* MAC protocol
* RLC protocol
* RRC protocol
* IP data
Explanation

According to the LTE user plane protocol stack, the Layer 3 of the Uu interface consists of the RRC protocol and the IP data. The

RRC protocol is responsible for radio resource management, access control, handover and mobility, and encryption and integrity protection. The IP data is the payload of the user plane that is transmitted over the PDCP layer.

NO.30 Which of the following spectrum sharing technologies can be used in the 3.5 GHz+2.1 GHz uplink and downlink decoupling/super uplink architecture?
* 3.5 GHz NR and 2.1 GHz LTE share both the downlink and uplink spectrums.
* 2.1 GHz NR and 2.1 GHz LTE share both the downlink and uplink spectrums.
* 3.5 GHz NR and 2.1 GHz LTE only share the uplink spectrums.
* 2.1 GHz NR and 2.1 GHz LTE only share the uplink spectrums.

Explanation

According to the HCIA-5G V2.0 Exam Outline, the 3.5 GHz+2.1 GHz uplink and downlink decoupling/super uplink architecture uses spectrum sharing technologies such as Dynamic Spectrum Sharing (DSS) and Spectrum Sharing (SS) to enable 3.5 GHz NR and 2.1 GHz LTE to share only the uplink spectrums, while the downlink spectrums are used exclusively by each technology.

NO.31 Which of the following are the cause values of QoS flow setup failures?(Select All that Apply)
* No response from the UE
* Insufficient transmission resources
* Unauthorized UE
* Insufficient radio resources

Explanation

According to the HCIA-5G V2.0 Exam Outline, no response from the UE, insufficient radio resources, and unauthorized UE are cause values of QoS flow setup failures, which correspond to options A, B, and D.

Insufficient transmission resources is not a cause value of QoS flow setup failures, but a cause value of handover execution failures, which corresponds to option C.

NO.32 After gNodeB hardware is installed and commissioned, which of the following functions needs to be tested and verified in single site verification?
* Interoperability capability
* SON capability
* Equipment functions and coverage capability
* Call drop capability

Explanation

According to the Career Certification – Huawei Enterprise, single site verification is used to test and verify the equipment functions and coverage capability after gNodeB hardware is installed and commissioned, which corresponds to option C.

NO.33 The UPEU in the BBU5900 needs to be connected to two circuit breakers.
* True
* False

Explanation

According to the BBU Quick Installation Guide (V100R005C10_04) (PDF)-EN, the UPEU in the BBU5900 needs to be connected to only one circuit breaker, not two. The UPEU is a universal power and environment interface unit that provides power supply and environment monitoring functions for other boards in a subrack.

The UPEU converts -48 V DC to +12 V DC and distributes the power to other boards. The UPEU also collects alarms from the subrack and reports them to the main processing board. The UPEU can be installed in slot 0 or slot 10 of the BBU5900 subrack. The

UPEU needs to be connected to a -48 V DC power cable that is connected to a circuit breaker in the cabinet. The circuit breaker must have a rated current of 16 A or higher.

Therefore, the correct answer is B.