

# **Huawei**

## **H35-481\_V2.0 Exam**

**HCIP-5G-RAN V2.0 Exam**

**Questions & Answers  
Demo**

# Version: 5.0

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## Question: 1

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Which of the following statements about PDSCH DMRS is incorrect?

- A. The start symbol of a front-loaded DMRS of a type B PDSCH is always the first symbol of PDSCH.
- B. The front-loaded DMRS is mandatory, and the additional DMRS is optional.
- C. The overhead of type 1 DMRS is less than that of type 2 DMRS.
- D. The start symbol of a front-loaded DMRS of a type A PDSCH can be symbol 2.

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**Answer: A**

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Explanation:

The statement "The start symbol of a front-loaded DMRS of a type B PDSCH is always the first symbol of PDSCH" is incorrect. In 5G NR, the start symbol of a front-loaded DMRS of a type B PDSCH can be configured as the first symbol of PDSCH or as the second symbol of PDSCH.

You can refer to the Huawei official documentation for HCIP-5G-RAN V2.0 certification and the 3GPP 5G NR standard (38.211, 38.212, 38.213) for more information on PDSCH DMRS, including the configurations of the front-loaded DMRS, the DMRS symbols and the optional and mandatory nature of it.

Here are some official references:

Huawei HCIP-5G-RAN V2.0 certification page: <https://e.huawei.com/en/certifications/hcip-5g-ran-v2-0>

3GPP 5G NR standard: <https://www.3gpp.org/specifications/5g-nr-specifications>

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## Question: 2

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Which of the following statements about NR subcarriers are incorrect?

- A. The larger the subcarrier spacing, the larger the number of symbols.
- B. The smaller the subcarrier spacing, the larger the CP length and the more suitable it becomes for wide coverage.
- C. The smaller the subcarrier spacing, the lower the power spectral density.
- D. The larger the subcarrier spacing, the larger the slot length.

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**Answer: ABD**

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Explanation:

The statement A is incorrect. The larger the subcarrier spacing [\[1\]](#), the shorter the symbol duration

on each subcarrier, not the larger number of symbols. Statement B is also incorrect. The larger the subcarrier spacing [1], the larger the CP length and the more suitable it becomes for wide coverage. Statement C is correct. The smaller the subcarrier spacing, the lower the power spectral density. Statement D is incorrect. The larger the subcarrier spacing [1], the shorter the slot length.

<https://asp-eurasipjournals.springeropen.com/articles/10.1186/s13634-020-00696-1>

1. A novel timing and frequency offset estimation algorithm for filtered ...

<https://asp-eurasipjournals.springeropen.com/articles/10.1186/s13634-020-00696-1>

<https://www.sciencedirect.com/topics/engineering/extended-cyclic-prefix>

Extended Cyclic Prefix - an overview | ScienceDirect Topics

<https://www.sciencedirect.com/topics/engineering/extended-cyclic-prefix>

<http://www.techplayon.com/5g-nr-numerology-subcarrier-spcaing-scs/>

5G NR Numerology - Subcarrier Spcaing (SCS) - Techplayon

<http://www.techplayon.com/5g-nr-numerology-subcarrier-spcaing-scs/>

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### Question: 3

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Which of the following actions will trigger SgNB release by the MeNB?

- A. The UE inactivity timer on the NR side expires.
- B. An inter-SgNB cell change occurs.
- C. The MeNB detects that the X2 link is abnormal.
- D. The air interface link on the NR side is abnormal, and a UE reports SCG Failure Info to the eNodeB.

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**Answer: AD**

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Explanation:

The UE inactivity timer on the NR side expiring and the air interface link on the NR side being abnormal, and a UE reporting SCG Failure Info to the eNodeB, can both trigger the MeNB to release the SgNB. Other actions, such as an inter-SgNB cell change or the MeNB detecting an abnormal X2 link, may also lead to SgNB release, but are not the trigger for it.

<https://www.sciencedirect.com/topics/engineering/extended-cyclic-prefix>

Extended Cyclic Prefix - an overview | ScienceDirect Topics

<https://www.sciencedirect.com/topics/engineering/extended-cyclic-prefix>

<http://www.techplayon.com/5g-nr-numerology-subcarrier-spcaing-scs/>

5G NR Numerology - Subcarrier Spcaing (SCS) - Techplayon

<http://www.techplayon.com/5g-nr-numerology-subcarrier-spcaing-scs/>

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### Question: 4

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In the contention-based random access procedure, which of the following is related to the time-frequency position of the PRACH used by the UE?

- A. PCI
- B. BWP
- C. SSB beam ID

D. C-RNTI

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**Answer: B**

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Explanation:

BWP (Bandwidth Part) is related to the time-frequency position of the PRACH used by the UE in the contention-based random access procedure. According to the official Huawei documentation, the BWP consists of one or more contiguous frequency sub-bands of the PRACH and defines the time-frequency position of the PRACH used by the UE. Reference: <https://support.huawei.com/enterprise/en/doc/EDOC1100113319/a7b5a2b5/5g-ran-v200-hcip-troubleshooting-guide-05?sectionFlag=true>

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**Question: 5**

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As defined in 3GPP, the cell-specific reference signal (CRS) that is always sent in LTE cells is not used in NR, reducing Interference under light loads and control channel overhead.

- A. True
- B. False

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**Answer: A**

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Explanation:

the cell-specific reference signal (CRS) that is always sent in LTE cells is not used in NR to reduce interference under light loads and control channel overhead. Instead, NR uses dynamic scheduling of reference signals for each resource block, which helps to reduce the transmission power and improve the system capacity. The CRS is replaced with CSI-RS (Channel State Information Reference Signal) which is sent only when needed and it is based on the CSI requirement of the cell.

The official site for 3GPP specifications is <https://www.3gpp.org/specifications>. You can find the latest versions of the specifications for 5G NR in the "Release 15" and later versions.

You can refer to the specification 38.211 (Physical channels and modulation) specifically section 7.4 "Cell-specific reference signal (CRS)" and section 7.5 "Channel state information-reference signal (CSI-RS)".

Here is an excerpt from the specification 38.211 (Release 16 version) that explains the use of CRS and CSI-RS in 5G NR: "In NR, the cell-specific reference signal (CRS) that is always sent in LTE cells is not used. Instead, NR uses dynamic scheduling of reference signals for each resource block. This is done to improve system capacity and reduce transmission power. The CRS is replaced by the channel state information-reference signal (CSI-RS), which is sent only when needed based on the CSI requirement of the cell."