

EITP30: Quiz 4  
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1. Which physical channel informs the terminal about the size of the control region in LTE?
  - PDCCH
  - PCFICH
  - PDSCH
2. How many bits of information does the physical channel from numeral 1 contain?
  - It depends on the application
  - 2048 bits
  - 2 bits
3. Which physical channel informs the terminal about downlink (DL) scheduling assignments and uplink (UL) scheduling grants for LTE and NR?
  - PDCCH
  - PCFICH
  - PDSCH
4. Which physical channel carries the master information block (MIB) in LTE and NR?
  - PDSCH
  - PBCH
  - BCH
5. Which physical channel carries system information blocks (SIBs) in LTE and NR?
  - PDSCH
  - PBCH
  - PRACH
6. What are the main steps that contention-based random access (CBRA) should follow in LTE and NR, in the context of Initial Access (IA)?
  - RA preamble transmission, RA response, scheduled transmission, contention resolution
  - RA scheduling assignment, RA acknowledgment, contention resolution
  - RA scheduling assignment, RA preamble transmission, RA acknowledgment, contention resolution
7. Consider an LTE system with two transmit antenna ports (APs) and four receive APs. Cell-specific reference signals (CRS) are used, and there is normal cyclic prefix (CP) duration. How many resource elements (REs) within a resource block (RB) pair can be used for other purposes than channel parameter estimation at each AP?
  - 168 REs
  - 160 REs
  - 152 REs
8. What is the periodicity of primary synchronization signal (PSS) and secondary synchronization signal (SSS) in LTE and NR, respectively?
  - Variable in LTE, variable in NR
  - 5ms in LTE, 20ms in NR
  - 5ms in LTE, variable in NR
9. From the 5G book Section 16.2, we know a gNB can send multiple SS/PBCH blocks over different beams in NR, and the UE can report back on the preferred beam for DL transmission. Where could the UE find information related to the gNB DL beam?
  - PSS and SSS
  - PBCH
  - SIB1
10. How can a UE know which exact beam the gNB used for SS/PBCH block transmission, in NR?
  - The UE is not able to know
  - The UE can correspond a unique identifier with a transmission beam
  - The gNB tells the UE in advance which beam is going to be used for transmission