

# HCNA - GSM RNP&RNA

1. Which of the following statements are wrong? (Multiple Choice)

A. There must be only one LAC under one BSC

B. The same LAC can be used under different MSCs.

C. There can be one or more LACs under one BSC

D. Different BSCs can use the same LAC

**Answer(s):** A,B

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2. In order to avoid the blocking of the SDCCH caused by excessive cell reselection across the LAC, we increase the \_\_\_ parameter of the neighboring cell that has a handover relationship with the cell and is different from the LAC.

A. Rxlev\_Access\_Min

B. T3212

C. Cell\_Reselect\_offset

D. Cell\_Reselect\_Hysteresis

**Answer(s):** D

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3. Please indicate which of the following indicators cannot be counted on the BSC side?

A. Long-distance incoming call rate

B. TCH congestion rate

C. SDCCH call drop rate

D. Wireless connection rate

**Answer(s): A**

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4. Traffic is 0.025Erl, which means:

A. One channel is occupied for 25 minutes per hour.

B. One channel is occupied for 1.5 minutes per hour.

C. One channel is occupied for 15 minutes per hour.

D. One channel is occupied for 2.5 minutes per hour.

**Answer(s): B**

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5. Which of the following is true about radio waves? (Multiple choice)

A. The propagation speed in vacuum is equal to the speed of light of 300,000 km/sec

B. During the propagation process, both the electric and magnetic fields are perpendicular to the direction of propagation.

C. The lower the frequency, the farther the distance is, the larger the median basic attenuation

D. During the propagation process, the electric and magnetic fields are perpendicular to each other in space.

E. It is a form of energy transmission

F. The higher the height of the mobile station antenna, the smaller the antenna height gain factor and the smaller the attenuation.

**Answer(s): A,B,D,E**

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6. The front-to-back ratio is an important indicator to characterize the antenna index. For the donor antenna, the larger the front-to-back ratio, the better.

A. False

B. True

**Answer(s): A**

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7. The assignment message, the paging message (circuit paging, packet paging) share the downlink CCCH channel, the paging message can only be sent on the PCH, and the assignment message can only be sent on the AGCH, which needs reasonable configuration.

A. False

B. True

**Answer(s): A**

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8. GSM frequency hopping mode can be divided into frame hopping and slot hopping according to time domain. Frame hopping means that each hopping frequency point is changed once every TDMA frame period, and slot hopping refers to the frequency change of each slot of TDMA frame once.

A. False

B. True

**Answer(s): B**

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9. Which of the following CGI numbers is correct?

A. 861300855

B. 13008558899

C. 4600108551201

D. 460010855

**Answer(s): C**

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**10.** A 10W power signal, after an attenuator (the loss is 6dB), the power is?

A. 10W

B. 5W

C. 1W

D. 2.5W

**Answer(s): D**

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**11.** GSM uses which multiple access multiplexing?

A. Space division multiplexing and time division multiplexing

B. Frequency division multiplexing and code division multiplexing

C. Code division multiplexing and space division multiplexing

D. Time division multiplexing and frequency division multiplexing

**Answer(s): D**

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**12.** Which of the following numbers are used to identify the base station?

A. MSISDN

B. BSIC

C. CGI

D. IMSI

**Answer(s): B**

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**13.** Which of the following statements about network color code are correct? (Multiple choice)

A. It must be ensured that adjacent or neighboring cells using the same BCCH carrier frequency have different BSICs. Therefore, we must pay special attention to the configuration of the communities at the junctions of provinces and cities.

B. Generally, GSM PLMNs in neighboring countries choose different NCCs, so it is only necessary to negotiate BCC when planning domestic provinces and cities.

C. BCC values can range from 1 to 7.

D. The NCC and the BCC together form a Base Station Identity Code (BSIC), which is transmitted on the synchronization channel (SCH) of each cell.

**Answer(s): A,D**

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**14.** A paging block (four consecutive CCCH slots) can carry 2 IMSI pages or 4 TMSI pages.

A. False

B. True

**Answer(s): B**

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**15.** The front-to-back ratio of the antenna refers to the ratio of the maximum power of the front and rear lobes of the antenna.

A. False

B. True

**Answer(s): B**

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**16.** Which of the following are the reasons for cell re-election? (Multiple choice)

A. C1 is less than 0 for 5 consecutive seconds

B. The current service area is forbidden

C. Radio link failure counter (RLT) is reduced to 0

D. Downlink failure (DSC is reduced to 0)

**Answer(s): A,B,D**

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**17.** Which of the following statement is correct about location updates?

A. MS will only trigger location updates when it crosses location areas during the movement

B. MS will not trigger the location update immediately if it crosses the location area during the call, but will do the location update after the call ends.

C. T3212 value setting can be greater than the timer on the MSC side.

D. The MS can be called during the location update, ie the MS can be paged

**Answer(s): B**

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**18.** What are the interfaces between MS, BTS, BSC, TC and MSC?

A. A/Abis/Um/Ater

B. Um/Ater/Abis/A

C. Um/Abis/Ater/A

D. A/Ater/Abis/Um

**Answer(s): C**

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**19.** Which of the following items that are not required for community capacity planning?

A. GPRS bandwidth per user busy time

B. Circuit service traffic per user busy time

C. CS business peak-to-average ratio

D. Circuit Business GOS

**Answer(s): C**

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**20.** When the road test finds that a certain cell may be a missing neighboring area, it needs to measure the neighboring area to determine whether it is a real neighbor. What is the first job that needs to be done?

A. Configure the primary BCCH frequency of the suspected cell to the serving cell BA2 table.

B. It is not necessary to configure the BA table, directly configure the cell as the serving cell neighboring area and then measure

C. Configure the primary BCCH frequency of the suspected cell to the serving cell BA1 table.

**Answer(s): A**

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