**CSCI 367 - Computer Networks I**

Cellular Wireless Protocols

1. Cellular network technology is the foundation of \_\_\_\_\_\_\_\_\_ wireless data communications. (mobile)
2. Cellular network data communications technology relies on \_\_\_\_\_\_\_ electromagnetic waves for connectivity. (radio)
3. Cellular network data communications technology relies on the use of low-power transmitters. Each low-power transmitter operates at \_\_\_\_\_\_ or less of power. (100 watts)
4. The range of a low-power cellular radio transmitter is termed a \_\_\_\_\_\_\_ (cell).
5. Each cellular network cell is assigned a band of frequencies managed by the cell’s \_\_\_\_\_\_\_. (base station)
6. Each cellular network cell’s base station contains a base station transmitter and receiver (transceiver) to allow communication within the \_\_\_\_\_\_. (cell)
7. The cellular network cell’s \_\_\_\_\_\_\_ communicates with the cellular network’s MTSO (Mobile Telecommunications Switching Office). (base station)
8. The cellular network’s MTSO connects calls between \_\_\_\_\_\_ units. (mobile)
9. The two types of channels managed by a base station to communicate with a mobile unit are \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_. (control channels/traffic channels)
10. Control channels are used between a \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_to exchange information for communications setup. (base station/mobile unit)
11. See Figure 10.6a below. For cellular network communication, a mobile unit first scans base station channel frequencies that are \_\_\_\_\_\_\_ by the cell’s bast station’s transceiver. (broadcast)
12. For cellular network communication, a mobile unit registers its location with the \_\_\_\_\_\_\_, using the cell’s base station’s transceiver. (MTSO)
13. See Figure 10.6b below. To initiate communication with a remote mobile unit, the mobile unit communicates with cell’s base station’s transceiver. The cell’s base station forwards the connection request to the \_\_\_\_\_\_\_. (MTSO)
14. See Figure 10.6c below. To begin a mobile unit’s connection request to a remote mobile unit, the \_\_\_\_\_\_ transmits paging messages to one or more base stations, and each base station transmits the paging signal using its associated setup channel. (MTSO)
15. See Figure 10.6d below. To complete a mobile unit’s connection request to a remote mobile unit, the \_\_\_\_\_\_ sets up a connection between the two base stations associated with the mobile units. (MTSO)

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