AT command sets used for GSM/LTE modules, commands typically follow three main syntax patterns: AT+CMD=? (test syntax), AT+CMD? (read syntax), and AT+CMD=<val> (set syntax). As part of the assignment, commands can be grouped into five functional categories such as SMS control, network registration, signal quality, packet data configuration, and device information. Below is a list of representative commands with help-style documentation:

1. AT+CSQ – Signal Quality
   * Test: Not supported
   * Read: AT+CSQ
   * Response: +CSQ: <rssi>,<ber> (e.g., +CSQ: 21,0)
   * Description: Returns the signal strength and bit error rate.
2. AT+CPIN – SIM Status
   * Test: Not supported
   * Read: AT+CPIN?
   * Response: +CPIN: READY or +CPIN: SIM PIN
   * Description: Checks if the SIM card is inserted and ready.
3. AT+CMGF – SMS Mode
   * Test: AT+CMGF=? → +CMGF: (0,1)
   * Read: AT+CMGF?
   * Set: AT+CMGF=1 (Text mode)
   * Description: Sets the SMS message format (0 = PDU, 1 = text).
4. AT+COPS – Operator Selection
   * Test: AT+COPS=? (May take time; lists available operators)
   * Read: AT+COPS?
   * Set: AT+COPS=0 (automatic) or AT+COPS=1,2,"40410" (manual)
   * Description: Manages network operator registration.
5. AT+CGDCONT – PDP Context Definition
   * Test: AT+CGDCONT=?
   * Read: AT+CGDCONT?
   * Set: AT+CGDCONT=1,"IP","internet"
   * Description: Configures APN and IP type for data sessions.

Since many AT command terminals do not automatically display this information, it is important to document such commands manually in this structured format. This helps in quick reference during testing, debugging, or scripting for M2M and IoT modem applications.