Assignment Report: SMS Mode Simulation

Objective

To simulate the process of sending and reading an SMS using AT commands in Text Mode through the AT Emulator, without a physical modem. This helps in understanding the standard command flow for SMS communication in 3GPP-based systems.

Step 1: Set SMS to Text Mode

Command : AT+CMGF=1 -----> Command Message Format (0,1)

Explanation:
This sets the SMS format to Text Mode instead of PDU (Protocol Description Unit) mode. Required to type and read messages in plain text.

Expected Output:

OK

Step 2: Initiate SMS Send

Command:

AT+CMGS="+919895000000" -------> Command Message Send

Explanation:
Begins the process to send an SMS to the number +911234567890 (dummy number). The modem waits for the SMS body input after showing >.

Step 3: Type SMS Content

Input (after > prompt):

Hello, this is a test message.

Explanation:
This is the actual text of the SMS that you want to send.

Step 4: Send SMS

Key Press:

Ctrl + Z

Explanation:
Signals the end of the SMS content and tells the modem to send the message.

Expected Output:

+CMGS: 1

OK

Meaning:
The SMS was sent successfully and was assigned message reference number **1** by the modem.

This number can be used to identify the SMS (mostly internal use).

Step 5: Read SMS (Optional)

Command:

AT+CMGR=1

Explanation:
Attempts to read the message stored at memory index 1 (if your emulator supports message storage).

Expected Output :

+CMGR: "REC READ","+911234567890","","25/07/19,15:00:10+22"

Hello, this is a test message.

OK

Conclusion

The simulation successfully demonstrated how to:

- Set SMS text mode using AT+CMGF=1
- Send a test SMS using AT+CMGS
- Simulate reading an SMS using AT+CMGR

Even without a physical module, this process helps in understanding how **3GPP-compliant AT commands** work in SMS operations.