

Operating Systems

Assignment 3.B

(10 Points) Review Questions :

- Individual task
- **Due:** Next Section. (one night before if you submit by email)

Chapter 3 Exercises (Starting at page 153):
No. 18, 19

(10 Points) Programming Task:

- Group task (max 2 persons), The instructor should review within the lab
- **Due:** Next Section. (email submission is not allowed)

1. Lucky number 7: Use POSIX (Memory Sharing IPC) to create a client, server programs such that:

- The Server should create a shared memory and fill it with (-1), then he listens on this memory until reading a change.
- The Client uses a random function to generate an integer number between 1 and 10 and places this number in the shared memory.
- If the Server read a number other than (7), he changes it back to (-1).
- If the Client read number (-1), he replaces it again with a new random number and so on.
- The client and server terminate only if the shared memory contains 7.

2. IPC Chatting: Use WinSock library to create a client, server programs that emulate chatting systems such that, each program able to send/receive messages with the other one.