## **TASK5.3**

## Part1

- 1. How many states could has a process in Linux?
- 2. Examine the pstree command. Make output (highlight) the chain (ancestors) of the current process.
- 3. What is a proc file system?
- 4. Print information about the processor (its type, supported technologies, etc.).
- 5. Use the ps command to get information about the process. The information should be as follows: the owner of the process, the arguments with which the process was launched for execution, the group owner of this process, etc.
- 6. How to define kernel processes and user processes?
- 7. Print the list of processes to the terminal. Briefly describe the statuses of the processes. What condition are they in, or can they be arriving in?
- 8. Display only the processes of a specific user.
- 9. What utilities can be used to analyze existing running tasks (by analyzing the help for the ps command)?
- 10. What information does top command display?
- 12. Display the processes of the specific user using the top command.
- 12. What interactive commands can be used to control the top command? Give a couple of examples.
- 13. Sort the contents of the processes window using various parameters (for example, the amount of processor time taken up, etc.)
- 14. Concept of priority, what commands are used to set priority?
- 15. Can I change the priority of a process using the top command? If so, how?
- 16. Examine the kill command. How to send with the kill command process control signal? Give an example of commonly used signals.
- 17. Commands jobs, fg, bg, nohup. What are they for? Use the sleep, yes command to demonstrate the process control mechanism with fg, bg.

## Part2

- 1. Check the implementability of the most frequently used OPENSSH commands in the MS Windows operating system. (Description of the expected result of the commands + screenshots: command result should be presented)
- 2. Implement basic SSH settings to increase the security of the client-server connection (at least
- 3. List the options for choosing keys for encryption in SSH. Implement 3 of them.
- 4. Implement port forwarding for the SSH client from the host machine to the guest Linux virtual machine behind NAT.
- 5\*. Intercept (capture) traffic (tcpdump, wireshark) while authorizing the remote client on the server using ssh, telnet, rlogin. Analyze the result.