

Advanced Operating Systems and Virtualization
October 31st, 2019

Name: _____ **Surname:** _____ **Student ID:** _____

Remember to write your correct personal data on this sheet, and use it as a folder to wrap the exposition. If you think a question is ambiguous, write your interpretation and answer accordingly. Ability to précis will be honoured.

You are not allowed to use any note or digital device. If you are found copying or consulting notes, you will not pass the written test.

Question 1

Describe what are the reasons behind the development of the Linux kpatch system, and illustrate how it works.

Question 2

Illustrate what are the steps undertaken by the Linux kernel to startup a new process, following the invocation of an `execve()` syscall.

Question 3

Discuss the main differences between the CPU scheduling algorithms in Linux 2.4 and Linux 2.6.

I, the undersigned, according to the provisions of law N. 675/96, allow the professor to publish on the website the results of this written test.

Legible signature in full: _____