

Instructions for the written test of Computer Network Performance

July 6, 2020 - Prof. Bartolini

1. Prepare your working setting and the devices you will need to use.

For the exam you will need two devices: a PC and a smartphone. For the entire duration of the exam you must be visible from your PC and from your smartphone camera for surveillance and identification purposes. Notice that the second device must be a smartphone and not any other widescreen device such as pc, laptops, tablets or iPads. You need to follow these instructions carefully. It is your responsibility to not violate any of the rules, knowing that any violation will invalidate your exam.

1. Ensure that your Internet connection is stable and you have reasonable bandwidth for the transmission of two video flows, from the PC and from the smartphone.
2. Install the Zoom app on both your devices.
3. Install any application that allows your smartphone to read a QR code (it is necessary for the upload of your work – no other upload manners will be allowed).
4. You will need to enter the site <http://exam.net> to take the exam from your PC. You are strongly encouraged, for your safety and for security reasons, to install Safe Exam Browser SEB (download it from <https://sourceforge.net/projects/seb/>). This software precludes you from exiting the application of the exam, but also prevents any automatic kick off from the app if you accidentally try to use illicit software. Let the professor know whether you have problems installing SEB.
5. The PC volume must be tunable even when SEB is active, to prevent sound issues when you will interact with the committee. It is very important to remember this, since SEB will disallow software controls, hence you must prefer the use of external audio devices, if possible. VERY IMPORTANT: you will not be allowed to use headsets, or earplugs during the exam.
6. The smartphone battery must be fully charged, and preferably connected to a power source all the time. A power or connection loss from the smartphone will invalidate the exam. For this reason it is recommended to install an app that prevents the device from entering the standby mode.
7. You must install a QR reader application on your smartphone.
8. Upload your document to infostud. If you hadn't done so by the time of the exam, please send me an email with subject "document + your last name"

2. Test your devices before the exam.

It is recommended to test your configuration before the exam:

1. Create a meeting with [Zoom.us](https://zoom.us) using your university email account. Rename your user as "PC_StudentID".
2. Share the URL of the so created meeting with your smartphone (for example using your email or a chat).
3. Enter the meeting with your smartphone using your same account, and rename the user as "CELL_StudentID".
4. Enable your PC camera, and both camera and microphone of your smartphone.
5. Ensure that there are no audio problems between the PC and the smartphone. If this happens try to lower the PC volume. Keep the smartphone volume at a high level as it is the device that the committee will use to contact you. In fact the connection with the committee will be private and continuously on.
6. From your PC you can enable the "grid view" to have a view of the other participants. In the test, through the grid view you should be able to see both the transmitted videos, from the PC and from the smartphone. Do this test with extreme care, as a proper configuration of the working environment is the first mandatory requirement to pass the exam.
7. Find a location for your smartphone camera that allows a complete view of your desk and of the surrounding, for a range of 1.5 meters from your location. Once you have selected a position for your desk, pc and smartphone, ensure that you are able to move the smartphone upon request, and to put it back in the selected position. The positioning of the devices must be stable. You can use tape, bands, books or other supports as a stand for your smartphone). It is your responsibility to find a location of desk, stands, PC and smartphone that allows proper environmental surveillance.
8. Your desk must be completely clean. You can only use white paper, calculator, pen. Keep your document on the desk. You can also keep a bottle of water and a glass on the desk provided they never obstruct the cameras.
9. The platform will ask you to provide the exam code two times, therefore you must have a piece of paper to write down such a code.

3. *Familiarize with the exam platform*

You are encouraged to familiarize with the platform:

1. Activate a meeting.
2. Write the test code **5KnQjb** on a piece of paper. This is NOT the real exam code. It is needed only for the test.
3. Talk to test the audio setting.
4. Open your browser and go to www.exam.net.
5. Type the exam code.
6. The browser will ask you for permission to start SEB. Accept and wait just a few seconds. Your PC will enter the "kiosk mode" and you will not be allowed to start any other application, unless you close SEB which will invalidate the exam. Note that your camera will stay active all the time.
7. Insert your data.
8. Try to upload a solution to the proposed test.

4. *The day of the exam (June 10, 2020 – the exam should start at 10.30, please be ready at 10.00)*

Few hours before the exam, at your institutional email address, you will receive the address of the Zoom call of the exam session. Ensure that your ID document has been correctly uploaded on InfoStud for fast identification. Keep the same document with you, on your desk.

1. Enter the Zoom meeting with disabled microphones, PC camera ON, smartphone camera OFF.
2. Wait and then accept the committee invitation to enter a private breakout room for your smartphone connection and environmental monitoring.
3. Enable the camera of both devices, enable the microphone of the smartphone only (the PC microphone must be disabled all the time, the smartphone microphone must be enabled all the time, from now on). In this manner, the video and audio stream coming from the smartphone will be private all the time.
4. The committee will enable a recording of the entire exam session. The recording will be deleted after the exam.
5. Ensure you have easy access to the volume setting of your PC even when SEB is on, to prevent interferences with the smartphone audio device.
6. The committee will ask you to show your document for identification. When asked, be ready to show it on the smartphone camera. The document must be the same you uploaded on infostud.
7. The committee will communicate an "exam code" that you have to write down on paper.
8. Open your browser and go to exam.net. Enter with the student role and type the exam code. The browser will open SEB and the app will ask you to enter the exam code a second time. Wait for the exam to start.
9. When the notification of the exam start is displayed on the screen you can enter the exam.
10. The work must be written on paper, therefore you cannot use the text area to provide answers. Be as neat and clean as possible with your writing. It is your responsibility to make your writing understandable. Write in **block letters (stampatello)**.
11. During the exam you cannot use any material (no books, no notes, no Internet) and you cannot communicate with anybody, not even for a glass of water (which is the reason why you have it on your desk). You can use white paper for your rough copy. The rough copy must not be uploaded.
12. You cannot abandon your seat for any reason, and you cannot move in a way that your face is off camera. Should this happen, the exam will be invalidated.
13. When you are ready to deliver your work (within the given time limit) use the chat to alert the committee and wait for them to enter the breakout room assigned to you. This may require several minutes as there are other students. Please wait patiently.
14. When the committee enters the room, you will act under the PC camera, and upload the work. For this to happen do what follows.
15. Take your smartphone
16. Start the QR-code application without interrupting the videoconference from the smartphone, as it is needed for communications.
17. Follow the instructions provided by the site to scan your solution, page by page.
18. Sort the pages and make them as big as possible in the created virtual document on exam.net. You will not be able to rotate the images on exam.net but you will be able to do so from your smartphone.
19. Send your exam.
20. Close SEB and Zoom. The exam is over.

21. Close the video conference (the zoom meeting).