

OPERATIONS MANAGEMENT a.y. 21/22 _ Exam instructions

Here are the detailed instructions for the exam procedure, which is the same one followed in all previous calls since the COVID started, with a few minor improvements based on the experience of 500 students who took the exam already. The system is based on Zoom to be in direct contact with you, and on free software to record your activity on the desktop of your computer so as to have a backup in case anything goes wrong, and to limit misbehavior. The recording proved very useful in the previous calls for example when students uploaded the wrong file, or by mistake, they deleted a whole part of the exercise and they would have failed the exam, but we could track what they were doing, and they passed the exam.

The exam is an individual test, and it is therefore forbidden to exchange information with any other person in any way (except with the room supervisor). Besides it is not allowed to look up any material (notes, slides etc.)

What is required for the exam:

- A computer where you have installed ZOOM, Excel, and the software OBS Studio-with at least 2GB free disk space (better if 5GB)
- The computer has to have the camera and the microphone working
- A smartphone with a camera working on which you have ZOOM

Download OBS – see the instructions file - **and practice before the exam date.**

Structure of the exam

The exam is composed of two parts:

- 1) The Multiple choice part with 36 questions and about 30 mins to answer. You will be given in the chat of the virtual room the link to the questions. This part is worth 30% of the total points of the exam

Questions of the first part are about all parts of the program of the course (even the parts covered by the exercises) and are basic ones, so if the candidate does not have at least 18 right answers he/she is not admitted to the second part of the exam.

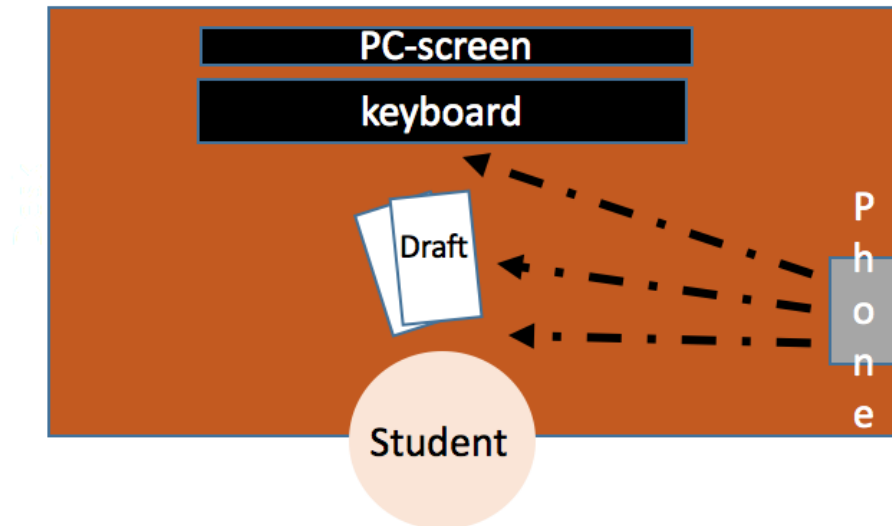
- 2) The second part of the exam is composed of 2 exercises: one on Queue management or Yield management, and one on Lean Management. This part is worth 70% of the total points. You will be given the link in the chat of the virtual room. This link is for Microsoft form where you can download for each exercise the exam text and the excel format. The excel format is designed to facilitate you in the solution of the exam and the presentation of the results.

You have to use the excel file given to you during the exam.

You may have developed some other excel support file with, for example, icons grouped already into cells, in different configurations, so you have already a draft of a possible future state, or of the timeline, and speed up the completion of the exercise. At the beginning of the exam you can copy your modifications and paste them into the excel file given to you at the exam. From that point on you are allowed only to use the excel file given to you and no other excel file.

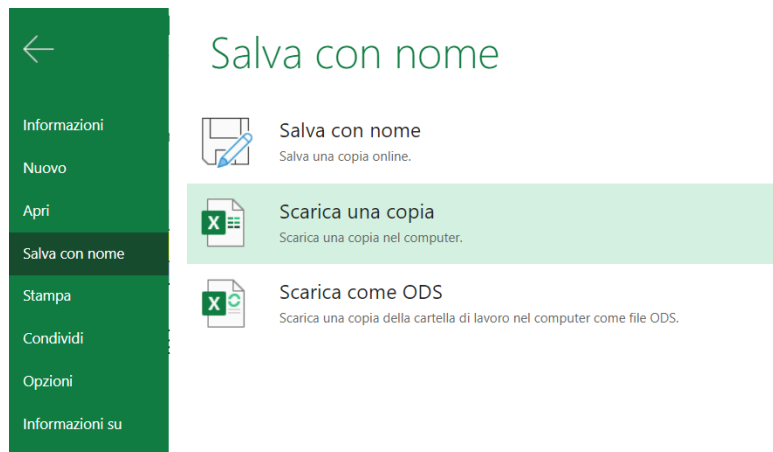
How the exam will take place:

1. You access to ZOOM Virtual Room through your **smartphone**, with the **camera on** and the microphone off and you must position your smartphone in such a way that it is pointing on the computer keyboard and your working area (practice for that to succeed). Below is an example that shows how you could position your smartphone next to you, for example on your desk, and the pointed working area around you.



2. You access to ZOOM Virtual Room through your **laptop**, with the **camera off** and the **mic off** – **the link to MS Forms for exam's text is shared through ZOOM Virtual Room chat**
3. Before starting the second part of the exam (exercises), **open OBS and start to record**
4. Start the exam from the link shared in the chat from your PC desktop (no other windows open)
5. Name the excel file you are working on using the following name P P P P P P P P - A where P is your Personal Code or "Codice Persona" (8 digits code) and A is 1 for exercise 1 and 2 for exercise 2. Example: 12345678-1

PS: when you access Excel online, it might appear in Italian language, to help you with that follow these steps: FILE → SALVA CON NOME → SCARICA UNA COPIA



When finished, you will upload in the answer field of MS Forms exam such excel file

6. Do not forget **to save frequently** the files you are working on
7. When the time is over and after **you submit** your MS Forms exam, stop the recording, name the recording with your Surname and Personal Code and send the recording file through Smash <https://fromsmash.com/> to your room supervisor.
8. Smash takes some time (the upload speed of most internet connections is much slower than the download speed, therefore do not worry if it takes long), it is not a problem - you will receive a confirmation email when it is sent – **Follow the OBS instructions file to keep the size of the recording file to a minimum**

NOTE: For students doing the exam in the classroom, all of the instructions stay the same but there will be no need for the smartphone.

If the recording file is not delivered after the exam, we cannot use it as a backup in case there is any failure in submitting the excel file of the exercise, and you will be asked to retake the exam orally. OBS software works offline. The length of the recording must be equal to or higher than the exam duration.

The Room's supervisor will see your working area (keyboard and the surrounding area) through ZOOM on your smartphone in real-time while he/she will check the recording file of your screen after the exam.