# Exam Centre Equipment and Policies

*Note: a further document on Exam Centre procedure will follow. This document is more about 'things'.*

## Equipment and Policy

Please provide hand sanitizer gel (or soap and water) and sanitizing tissues to clean surfaces before and after each day of the contest. Students should sit in the same seats on both days. Students and staff must wear masks if local legislation requires it. Social distancing must be observed, and enforced by all adults present. Invigilators must not smoke or talk in the Exam Room. There should be comfortable seating for adults. Only registered adults are permitted in the Exam Room.

The equipment needed is as follows:

- Main PC/Laptop/Notebook with a connection to the internet.

- At least 2 webcams (these can be proper standalone webcams, or appropriate extra laptops, or smart phones). See Advice on Webcams below.

- A printer (to print the Contest Paper papers).

- A scanner (to produce PDFs of students' scripts). See Advice on Scanners below.

- At least two reams of plain A4 paper (which will probably not be completely used; letter paper in the USA). See Advice on Paper below.

- A supply of badge holders (3 days before IMO the IMO Commissioner can download IMO identity badges on paper).

- A supply of pens and pencils.

- IMO Badges (three days before the contest, the IMO Commissioner will be able to download paper to fill badges). Please obtain sufficient "conference style" transparent badge holders.

- *Quiet* food and drink e.g. cake, plates, water and drinking vessels.

- A first-aid kit.

- Adults should carry mobile/cell phones.

- A clock which does not make a ticking noise.

If there any irregularities, contact Rafael Sanchez (Chair of Ethics). See below.

There should be a place outside the Exam Room where Leaders and Commissioners can seek advice by email during Q & A, and discuss technical problems with IMO IT.

## Translation

If a translation is being performed at a particular Exam Centre, it will be necessary to download an official version of the paper at *local start time minus 3 hours* to perform the translation. Note that this year translation will be done completely online. There is **no need to have LaTeX installed on your local machine**. However it is necessary to have a PC/laptop with a **keyboard compatible with the local language** (e.g. you must know how to type ALL characters from your alphabet, including all accented ones). LaTeX "inventions" for accented characters should be avoided in favour of using genuine (eg. unicode) characters:

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Baron M\"{u}nchausen
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. . . NO

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 Baron Münchhausen
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. . . YES

## Other matters

There should be good access to toilets, and students should be accompanied to toilets by an IMO registered adult.

Note that good quality smartphone cameras are OK for invigilation surveillance, but they are not good enough for making PDFs of students' scripts.

Any Software Problems (cannot use Zoom) contact IMO 2020 IT as soon as possible (email below).

## Paper Advice

It will be possible for the IMO Commssioner to download items for printing on plain paper. 3 days advance of IMO: answer forms (general) Q & A forms (personalized), Scan cover pages (personalized) 30 minutes in advance: Exam papers (personalized) **DO NOT RUN OUT OF INK** on exam days!

## Scanner Advice (technical)

The scanner is needed to produce PDFs of students' scripts. It is very important that the scanner produces (multipage) PDFs. For some small desktop scanners one can have some software/special drive installed to immediately convert a raw scan to PDF on a PC/laptop. We must avoid scans/photos of students' paper using mobile phones as this will produce lots of different files which may not be easy to process. Detailed instruction about scanning will be available on the webpage as well. It is necessary to have a PDF reader installed on the computer where scans will be locally stored.

## Webcam advice (technical)

Each Exam Centre must set up at least 2 webcams monitoring the Exam Centre:

- *Type 1* cameras (at least 1, and may be more if the Exam Centre is large) must observe the examination room where students work during the exam.

- The *Type 2* camera must observe the working desk of leader/commissioner dealing with copying, printing and scanning of the examination materials. The resolution of Cameras must be not less than 720p (and 1080p is much more preferable). The frame rate must be within the interval $25 - 30$ frames per second.

Built-in cameras in desktops, laptops, smartphones are usually acceptable for surveillance, provided that the above-mentioned requirements are met.

Each camera must be connected to a Zoom conference via PC, laptop or smartphone app. Each Zoom conference will have some (5 or 6) Exam Centres in it, and a dedicated invigilator in Russia will be monitoring the webcams, as will the IT staff managing the Zoom conference.

Exam centres will be distributed into conferences by IMO 2020 IT staff in the days before the first Exam. Each Exam Centre will be provided with its Zoom conference ID.

Webcam testing days are September 19 and 20. During those days the testing conference IDs will be provided, and IT staff will contact Exam Centres to deal with all technical issues. We understand that national IMO organizers may not have access to Exam Centres before September 21st (although on site testing is very desirable). In the event that the Exam Centre is completely inaccessible before September 21st, improvised testing in a similar place is still essential.

## Important email addresses

- IMO 2020 IT email: it@imo2020.ru

- Matjaz Zeljko email: webmaster@imo-official.org

- Rafael Sanchez (Ethics) email: lamonedar@gmail.com

Geoff Smith, IMOB President