

Notes for assessors attending Part B/C examinations

These notes are principally directed at those who are new, or relatively new, to this task (copied – for information - to those who are setters but not actually attending the exam). So apologies to old hands for reminding you of what you will probably already know. A copy of the current guidance from 'Policy and Guidance for Examiners and Others Involved in University Examinations' (Section 10) is attached. These notes amplify that document in our context.

Only the first two sections (Dress and Arrival) have to be read before you go to the Exam Schools. You can read the rest in the exam room.

Dress

You are expected to wear academic dress (gown and hood) with formal clothing. The Mathematical Institute has a gown and hood that you can use (but there may be one or two other mathematicians after them at the same time). Please ask Helen Lowe in advance if you want to use them.

Arrival

You should arrive at the Exam Schools at least 20 minutes before the start of the exam, in order to check that the question paper is correct and so on. The Exam Schools have been instructed that candidates should be supplied with booklets of unlined paper for all Mathematics papers (except BO1.1). If any issues over stationery arise, please report them to Helen Lowe.

During the exam

You will play no role in starting the exam: that is the job of invigilators. If a candidate raises a hand to ask a question, it is the invigilators' job to respond to it. You should not approach the candidate yourself, but do alert the invigilators if you observe that they have failed to notice a raised hand.

If a candidate asks a question about the content of the examination paper the invigilator will approach you. You may or may not need to speak directly to the candidate. The invigilators should record all queries in the log-book; please make sure that they do so.

Departure

You are free to leave 30 minutes after the start of the exam, provided there are no unresolved queries. However you should make yourself available by telephone until the scheduled end of the exam.

Answering queries

This is a very tricky matter. An extract from the Second Notice to Candidates is reproduced below, and you should of course act in accordance with this.

Queries range from the trivial, through matters of clarification of a question, to doubts whether a question is correct. In deciding how to handle a query, I strongly advise erring on the side of making no comment, particularly if you have already left the exam room. If you give any information which might be helpful to one candidate, it must be given to all candidates by

announcement not only in the main exam room but in any other room in the Exam Schools or in colleges where candidates may be taking the exam.

In deciding whether or not to make an announcement, please bear in mind the following:

1. Any announcement is disruptive. It interrupts candidates' train of thought; usually some candidates cannot hear it clearly so there is disturbance for a few minutes as the invigilators move round answering questions about what was announced.
2. An announcement of a clarification may be unfair, especially if it is made a significant time after the start of the exam. Some candidates will have spent time struggling with the unclear version, while other candidates may not even have started to think about the question.
3. Any announcement has to be conveyed to candidates in other places, by passing through Exam Schools and college staff who may not know how to read mathematical notation.
4. An incorrect announcement is disastrous, and it will almost certainly provoke complaints to the Proctors.
5. Students are told on the University Website: Don't ask if you do not understand a word or phrase on the exam paper, neither examiner nor invigilator is permitted to answer. They have been reminded of this in our Second Notice to Candidates (see extract below). I strongly recommend that you apply this rule if a candidate asks for a clarification, unless the question is genuinely ambiguous or some essential piece of information is missing.

If you decide to make an announcement, please take a very firm line with the invigilators and Exam Schools staff, insisting that they must arrange for the announcement to be made in their "specials room" and to candidates taking the paper in colleges. Please give them the announcement in a form which can be read by non-mathematicians.

Example of a trivial query

The question says:

Consider a function from X to Y

The vast majority of the candidates will read *form* as *from* without question, but somebody might ask if *form* should be *from*. In order to avoid a disruptive announcement, you might simply confirm it to the candidate. (However if you get repeats of the same query, it would be appropriate to make an announcement.)

Example of a query seeking clarification

A topology question talks about a topological space X , a subset Y of X , and an open connected subset U of Y .

Candidate 1 asks what connected means. You should not answer this query because candidates should know what it means, and examiners are not permitted to answer questions of this type. An appropriate response would be I cannot tell you that.

Candidate 2 asks whether U is supposed to be connected as a subset of Y or as a subset of X . You should not answer this query because the candidate should know that connectedness is a property which is intrinsic to U , so there is no ambiguity about connectedness. Appropriate responses would be I cannot tell you that or You should decide what you think the question means and make this clear on your script.

Candidate 3 asks whether U is supposed to be open in Y or open in X . This raises a potential ambiguity which should have been avoided when setting the question. However the solution to the exam question may be independent of the interpretation of the point. If the solution does depend on the interpretation, then there is a genuine ambiguity and you should make an announcement. If the solution does not depend on the interpretation, then you should use your judgement whether or not to make an announcement.

In addition to the points about disruption and fairness, the following points are relevant to the decision:

Is ability to interpret the question correctly part of what is being tested?

(b) Does the interpretation matter to the question?

(c) Might the candidate be trying to get a useful hint?

Unless the circumstances point clearly towards answering the question directly, a non-committal reply is recommended. If you decide to answer the question directly you must make sure the announcement is made to all candidates in the room and elsewhere.

Example of a query about correctness

A candidate says: *This question says $x < 1$ but I think it should say $x > 1$.*

The great majority of such queries are mistaken. In those cases, I recommend that you do not tell the candidate that the question is correct (because this may be helpful to that candidate, but you are not giving the same help to other candidates). Instead give a non-committal answer (see the previous example).

If you think that the candidate is correct, please take great care. I recommend giving a noncommittal answer initially, then checking very carefully that there is an error (if you did not set the question, try to contact the setter). If any doubt remains, make no announcement. If you are certain that there is an error, make an announcement and make sure that it is conveyed to candidates taking the exam elsewhere.

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Extract from Second Notice to Candidates in Mathematics

Presence of Examiners in the Examination Room

If you believe that a question is incorrect or ambiguous, you may ask the invigilator to communicate with the Examiners. An Examiner (or Assessor) will be present for the first 30 minutes of each paper, but you can raise queries even after they have left. Any correction or clarification given to you will be announced to all candidates. Please note that the Examiners cannot assist you if you do not understand a word or phrase on the exam paper, or give you any other advice about the examination. If the Examiners cannot answer your question you may write on your script what your query is, and how you are interpreting the question.