

Setting & Checking Exam Papers

Setting The first step is to draw up a list of topics for each question. This should be discussed with the Checker and if possible with the current lecturer of the most relevant course. The goal at this stage is to get good syllabus coverage; experience shows that considerable effort can be wasted by setting questions that are either too narrow in their coverage, or go beyond the syllabus.

In A papers it's ok to test Prelims material but such material should be only incidental to testing material studied in the second year, since we only have a limited number of questions in which to ensure that students have a sound grasp of the fundamentals.

Section A questions on an A paper have a two-fold purpose: to broaden syllabus coverage, and to ensure that even weak candidates could score a reasonable number of marks. A student who has studied conscientiously should be able to write good answers to all Section A questions even if s/he isn't very talented.

Section B questions are for exploring problem-solving skills and depth of understanding.

A useful sequence for paper setting is: (i) jot down a question, (ii) write out a solution in rough, (iii) revise the question in light of the rough solution and iterate to convergence; (iv) set the question in \TeX and print out; (v) write out a model solution; (v) add a marks scheme to your solution and the \TeX ed question. In general the mark scheme on the model solution should be more detailed than that put on the question itself, which should have ≤ 5 mark items. (Recent External Examiners have repeatedly criticised model solutions for inadequate marking schemes.)

It is essential to write out a *complete* solution, including the bookwork and wordy bits, since without these it's impossible (a) to assess accurately the length of the question, or (b) to tell another Examiner how to mark the question should this become necessary. On (b) it's worth recalling that the Proctors excuse us from the general practice of double marking only because we have detailed marking schemes that make marking by any Examiner cut-and-dried.

Typesetting should begin by downloading the macro files and the template for your paper from the designated website. One should use such templates rather than editing an earlier paper, because there is (unfortunately) constant evolution in macros etc, and significant time can be wasted, and errors introduced, by the use of old macros and conventions. If you don't do \TeX , you can get Lena Hagan (73349) to set it for you. Please also read the guide to the use of the macros: incorrect usage generates plenty of work later on, and increases the danger of errors slipping through to the exam hall. A major problem is misuse of the macros such as $\backslash\text{mm}$ for units.

It is a good idea to let the Chairman have your \TeX file as soon as it is ready, and before the paper goes to the checker, so he can do a subeditor's job on it – experience shows that points that lack clarity can often be picked up at this stage. Whatever you do, don't e-mail the file unencrypted! One's worst nightmare is that in early June a paper is posted on the web!

Checkers must be familiar with the given area – because they have lectured or tutored it. That is, we want checkers who, given a question, should be able to sit down and produce a first-class answer. It's ok to resort to a textbook when checking, but the alarm should be sounded if the checker feels it isn't clear that a well prepared UG should have known what s/he's just looked up. Ideally there would be one checker per paper, but if one person doesn't have the requisite expertise across the paper, the questions can be parcelled out to more than one checker.

A checker must work the questions without access to the model solutions. S/he must write out the whole question *including the bookwork & wordy bits*, and at a quiet time, when it is possible to keep track of how long each question is taking. Clearly if checking a paper takes longer than 3hrs multiplied by the ratio of questions set to solutions sought, the paper is too hard.

Once the checker has worked the questions, s/he should give the setter his/her solutions and comments on the lengths of questions. The setter has to see the extent to which the checker's solutions conform to his expectations, and setter and checker should discuss ways to remedy deficiencies. Once the setter has prepared a new draft, s/he should discuss with the Chairman whether the changes made in response to the checking are sufficiently trivial that a second checker is not required. If the changes are significant, a second checker will be signed up and the process will repeat.