

Oxford University Final Honour Schools
Mathematics and Statistics Part A:
First Notice to Candidates
Trinity Term 2011

- Full particulars about the syllabus and the examination are contained in the *Examination Decrees and Regulations* together with the *Supplements* (including the Part A synopses) to the *Mathematics and Statistics Undergraduate Handbook*.
- We will write to you again later with information about the examination timetable and practical arrangements in the Schools, including information about candidate numbers, handing in of scripts, and so on. I am expecting the examination to be held in week 9 in Trinity Term, 27–30 June 2011, with one paper each day. These dates should be regarded as provisional at this stage.
- A note about examination conventions relating to marking of papers in Part A is attached, together with the qualitative class descriptors. Your marks will be reported to you in the University's standard format, which consists of a mark in the range 0-100 for each paper.
- The examiners are planning to hold their final meeting on Friday 15 July 2011, and hope to distribute results to Colleges soon afterwards.

Dr David Steinsaltz
Chairman of Part A Examiners
Department of Statistics
7 March 2011

cc Senior Maths Tutors
Senior Tutors

Part A 2011 Mathematics and Statistics: Marking of papers

Standardized Marks

The University wishes all examiners to adopt a uniform system of reporting marks. This means that each candidate will receive numerical marks in the range 0-100, such that

- a First Class performance (on that paper) is indicated by a mark of 70 to 100;
- an Upper Second Class performance (on that paper) is indicated by a mark of 60 to 69;
- a Lower Second Class performance (on that paper) is indicated by a mark of 50 to 59;
- a Third Class performance (on that paper) is indicated by a mark of 40 to 49;
- a Pass performance (on that paper) is indicated by a mark of 30 to 39;
- a Fail performance (on that paper) is indicated by a mark of 0 to 29.

There are four papers in Part A, all of 3 hours in duration. In the order in which they will be taken, these are AC1, AC2, AS1 and AS2. At the end of the Part A examination, a candidate will be awarded four University standardised marks (USMs) for their performance in Part A.

In order to arrive at such USMs for each paper, the examiners will mark and assess papers in the way described below.

Papers in Part A

For papers AC1 and AC2, each paper has three sections: Algebra, Analysis and Differential Equations, with three questions on each section on each paper.

AC1 - There will be 9 questions on paper AC1 and candidates should attempt them all. Each question is marked out of 10.

AC2- There will be 9 questions on paper AC2. There will be 3 questions in each section, namely 3 on Algebra, 3 on Analysis and 3 on Differential Equations. The best 4 questions will count for the total mark for this paper, with at least 1 from each section. That is, the best answer from each section together with the next best answer will count for the total mark for this paper. Each question is marked out of 25.

AS1- There will be 25 questions on paper AS1, 3 on Probability, 3 on Statistics, and otherwise 1 for each 8-lecture course and 2 for each 16-lecture course. The best 5 answers on Probability and Statistics, and the best 4 answers on other sections, will be counted towards the mark for this paper. Each question is marked out of 10.

AS2 - There will be 23 questions on paper AS2, 1 for each 8-lecture course and 2 for each 16-lecture course. The best 2 answers on Probability and Statistics, and the best 2 other answers (which may include further answers on Probability and Statistics), will be counted towards the mark for this paper. Each question is marked out of 25.

Front cover sheets

You will have a front cover sheet to complete for each examination, where you need to state which answer booklets are submitted.

Marking of Papers

Mark schemes for questions out of 10 will aim to ensure that the following qualitative criteria hold:

9-10 marks: a completely or almost completely correct answer, showing good understanding of the concepts and skill in carrying through arguments and calculations; minor slips or omissions only.

5-8 marks: a good though not complete answer, showing understanding of the concepts and competence in handling the arguments and calculations.

Mark schemes for questions out of 25 will aim to ensure that the following qualitative criteria hold:

20-25 marks: a completely or almost completely correct answer, showing excellent understanding of the concepts and skill in carrying through arguments and/or calculations; minor slips or omissions only.

13-19 marks: a good though not complete answer, showing understanding of the concepts and competence in handling the arguments and/or calculations. In this range, an answer might consist of an excellent answer to a substantial part of the question or a good answer to the whole question that nevertheless shows some flaws in calculation or in understanding or in both.

This should be regarded as a guide conveying the intention of the examiners.

USMs

At the end of the Part A examination, a candidate will be awarded a University standardised mark (USM) for each of the four papers.

The Examiners may rescale the raw marks to arrive at the four USMs reported to candidates. In arriving at this rescaling, the examiners will principally take into account candidates' total raw marks on each paper (subject to the rubric of each paper). The Examiners will aim to ensure that all papers and all subjects within a paper are fairly and equally rewarded, but if in any case a paper, or a subject within a paper, appears to have been problematic, then the Examiners may take account of this in calculating USMs. The Examiners may use different scalings on papers AS1 and AS2 from those used on Mathematics papers AO1 and AO2 should they judge this to be appropriate.

The USMs awarded to a candidate in Part A will be carried forward into the final classification after Part B.

Qualitative class descriptors

Class I	The candidate shows excellent skills in reasoning, deductive logic and problem-solving. He/she demonstrates an excellent knowledge of the material, and is able to use that in unfamiliar contexts.
Class Iii	The candidate shows good or very-good skills in reasoning, deductive logic and problem-solving. He/she demonstrates a good or very good knowledge of much of the material.
Class Iiii	The candidate shows adequate basic skills in reasoning, deductive logic and problem-solving. He/she demonstrates a sound knowledge of much of the material.
Class III	The candidate shows reasonable understanding of at least part of the basic material and some skills in reasoning, deductive logic and problem-solving.
Pass	The candidate shows some limited grasp of at least part of the basic material. [Note that the aggregation rules in some circumstances allow a stronger performance on some papers to compensate for a weaker performance on others.]
Fail	Little evidence of competence in the topics examined; the work is likely to show major misunderstanding and confusion, coupled with inaccurate calculations; the answers to the questions attempted are likely to be fragmentary only.