

Oxford University Final Honour Schools
Hilary Term 2008
Mathematics and Statistics Part A:
First Notice to Candidates

- 1 • Full particulars about the syllabus and the examination are contained in the *Examination Decrees and Regulations* together with the *Supplement* (Part A synopses) to the *Mathematics and Statistics Undergraduate Handbook*.
- 2 • You will receive a second notice later with information about the examination timetable and practical arrangements in the Schools, including information about examination numbers, handing in of scripts, and so on. I am expecting the examination to be held on Monday, Tuesday, Wednesday and Thursday of week 9 in Trinity Term, June 16-19th 2008, but these dates should be regarded as provisional at this stage.
- 3 • A note about examination conventions relating to marking of papers in Part A is attached. Your marks will be reported to you in the University's standard format which consists of marks in the range 0-100.
- 4 • The examiners are planning to hold their final meeting on Friday 4th July 2008, and hope to distribute results to Colleges soon afterwards.

I would like to draw your attention to the section on Degree Classification in the note about examination conventions attached, which describes a strong paper rule to be adopted for classification in 2009. These changes are relevant to the candidates taking Part A in 2008.

Jonathan Marchini
Chairman of Part A Examiners
Department of Statistics
21 January 2008
cc Senior Maths Tutors
Senior Tutors

Part A 2008 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 performance at the level of a Fail (on that paper) is indicated by a mark of 0 to 29.

There are four papers in Part A, all of 3 hours. 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. These will be awarded for a candidate's performance in:

- (i) AC1;
- (ii) AC2;
- (iii) AS1;
- (iv) AS2

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

Questions on AC1 and AS1 are shorter and will be marked out of 10, while questions on AC2 and AS2 are longer and will be marked out of 25.

There will be 9 questions on paper AC1 and candidates should attempt them all.

There will be 9 questions on paper AC2 and candidates may hand in answers to at most 5, from which the best 4 answers will be counted towards the mark for this paper.

There will be 24 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. Candidates may hand in answers to at most 10 questions, at least 5 of which should be on Probability and Statistics, and at least 4 of which should be on Options. 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.

There will be 22 questions on paper AS2, 1 for each 8 lecture course and 2 for each 16 lecture course. Candidates may hand in answers to at most 5 questions, at least 2 of which should be on Probability and Statistics. 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.

You do not need to memorise these details. They will be repeated on the individual examination papers.

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 which nevertheless shows some flaws in calculation or in understanding or in both.

This should be regarded only 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) on each of (i)-(iv), as above. The Examiners will recalibrate the raw marks to arrive at the USMs reported to candidates. In arriving at this recalibration, the examiners will principally take in to account the total sum over all four papers of the marks for each question, subject to the rules above on numbers of questions answered.

The examiners aim to ensure that all papers and all subjects within a papers are fairly and equally rewarded, but if in any case a paper, or subject within a paper, appears to have been problematical, then the examiners may take account of this in calculating USMs.

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

Part A may be sat only once.

Degree Classification

For the FHS Mathematics and Statistics in Parts B and C for examination in 2009 onwards the following apply.

Examinations for whole unit papers are of three hours duration and half unit papers are of one and a half hour duration.

Aggregation of marks for award at Part B from 2009 onwards

All successful candidates will be awarded a classification at the end of three years after the Part B examination.

A strong paper rule will be adopted for classification in 2009 onwards.

By the n th class strong paper rule we mean that for a candidate to be classified at the n th class standard, at least 3 papers from Parts A and P must lie in the n th class (or above) and at least one of these must be a Part B. For example, for a First class award, a candidate would need at least 3 of their whole unit paper USMs to be first class marks (with at least 1 first class whole unit at Part B) together with a weighted average score of parts A and B over 70.

Let $AvUSM\text{-Part A\&B}$ = Average weighted USM in Parts A and B together;

The Part A USMs are given a weighting of 2, and the Part B USMs are given a weighting of 3 for a full unit and 1.5 for a half unit.

First Class	$AvUSM\text{-Part A\&B} \geq 70$ and the first class strong paper rule
Upper Second Class	$AvUSM\text{-Part A\&B} \geq 70$ and not satisfying the first class strong paper rule or $70 > AvUSM\text{-Part A\&B} \geq 60$ and the upper second strong paper rule satisfied
Lower Second Class	$70 > AvUSM\text{-Part A\&B} \geq 60$ and not satisfying the upper second strong paper rule or $60 > AvUSM\text{-Part A\&B} \geq 50$ and the lower second strong paper rule satisfied
Third Class	$50 > AvUSM\text{-Part A\&B} \geq 40$ or $60 > AvUSM\text{-Part A\&B} \geq 50$ and not satisfying the lower second strong paper rule
Pass	$40 > AvUSM\text{-Part A\&B} \geq 30$
Fail	$AvUSM\text{-Part A\&B} < 30$.

Note half unit papers count as a half paper when determining the average USM or determining the number of strong papers.

BA in Mathematics and Statistics

All candidates who wish to leave at the end of their third year and who satisfy the Examiners will be awarded a classified BA in Mathematics and Statistics at the end of Part B based on the above classification.

MMath and Mathematics and Statistics in 2009 onwards

In order to proceed to Part C, a candidate must minimally achieve lower second class Honours standard in Part A and Part B together.

Candidates successfully studying for a fourth year will receive a separate classification based on their University standardised marks in Part C papers according to the following rules:

The classification conventions for Part C are:

- First Class $70 \leq Av \text{ USM Part C}$
- Upper Second Class $60 \leq Av \text{ USM Part C} < 70$
- Lower Second Class $50 \leq Av \text{ USM Part C} < 60$
- Third Class $40 \leq Av \text{ USM Part C} < 50$

A pass degree will not be awarded for a Year 4. Candidates achieving

$Av \text{ USM Part C} < 40$ may supplicate for a BA.

Half unit papers count as a half paper when determining the average USM.

Candidates leaving after four years who satisfy the Examiners will be awarded an MMath in Mathematics and Statistics with two associated classifications.