

# Oxford University Final Honour Schools Trinity Term 2009

## Mathematics and Computer Science Part A: First Notice regarding Mathematics Papers

- Full particulars of the syllabus and the examination are contained in the *Examination Regulations* together with the *Supplement* (Part A synopses) to the *Handbook for the Undergraduate Mathematics Courses*.
- 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. We are expecting the Mathematics papers in the examination to be held in week 9 in Trinity Term, June 22<sup>nd</sup> to 25<sup>th</sup> June 2009; with one paper each day. These dates should be regarded as provisional.
- A note about examination conventions relating to marking of Mathematics papers in Part A is attached. 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 10<sup>th</sup> July 2009, and hope to distribute results to Colleges soon afterwards.

A. Curnock  
Chair of Part A Examiners  
Mathematical Institute

P. Jeavons  
Chair of Examiners  
Final Honour Schools of Computer Science  
and Mathematics & Computer Science

Hilary Term 2009

Copy: Senior Computation Tutors  
Senior Mathematics Tutors

## Part A 2009 Mathematics and Computer Science:

### Change to syllabus

The Syllabus and Synopsis for the Hilary Term Course "GROUP THEORY" was revised during Trinity Term 2008.

The following sentence has been removed from the examinable syllabus and will NOT be examined in Trinity Term 2009.

DELETE : Linear Groups acting on sets of subspaces.

## 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 a numerical mark on each paper 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.

In order to arrive at such University standardized marks (or USMs) for each paper, the examiners will mark and assess papers in the way described below.

### Mathematics Papers in Part A

There are four Maths papers in Part A two of which are 2 hours' duration and two are 1.5 hours' duration. These are AC1(MC), AC2(MC), AO1(MC) and AO2(MC).

AC1(MC) and AC2(MC) each contain three sections, one on Algebra, one on Analysis and one on Differential Equations. Each section contains 3 questions. **Candidates may answer questions from only two sections.**

**AC1(MC):** This is a 2-hour examination. Candidates may answer as many questions as they wish from two sections. The best six questions from two sections count for the total mark for this paper. Each question is worth 10 marks.

**AC2(MC):** This is a 2-hour examination. Candidates may answer as many questions as they wish from two sections. Candidates must answer at least one question from each of these two sections. The best question from each of the two sections plus the next best question from one of these two sections will count for the total mark for this paper. Each question is worth 25 marks.

AO1(MC) and AO2(MC) are the option papers. Each contains 17 questions, 1 question for each 8 hour lecture course and 2 questions for each 16 hour lecture course. This will include questions on all Maths options course except Numerical Analysis which can only be taken as a Computer Science option.

**AO1(MC):** This is a new examination this year and is a 1.5 hours examination. Candidates may submit answers to as many questions as they wish. The best 4 answers will count for the total mark for this paper. Each question is worth 10 marks.

**AO2(MC):** This is a 1.5 hours examination. Candidates may submit answers to as many questions as they wish. The best 2 answers will count for the total mark for this paper. Each question is worth 25 marks.

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 very good understanding of the concepts and skill in carrying through the 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 a very good 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.

## **USMs**

At the end of the Part A examination, a candidate will be awarded a University standardised mark (USM) for each of the four Mathematics papers. 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 into account the total sum over all four papers of the marks for each question, subject to the rules above on numbers of questions answered, and the performance of the candidates in Part A Mathematics on the corresponding papers.

The examiners 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 problematical, then the examiners may take account of this in calculating USMs.

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